

The Selected Works
of Arne Naess

Interpretation and Preciseness

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Interpretation and Preciseness

A Contribution to the Theory of Communication

Edited by Alan Drengson
in Cooperation with the Author

VOLUME I

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in English by Jacob Dybwad, Norway, 1953.

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>List of Figures and Tables</i>	<i>xv</i>
<i>Series Editor's Introduction</i>	<i>xvii</i>
<i>Author's Introduction to the Series</i>	<i>lxiii</i>
<i>Author's Preface to This Edition</i>	<i>lxix</i>
<i>Acknowledgments for the 1953 Edition</i>	<i>lxxiii</i>
<i>Author's Foreword to the First Edition</i>	<i>lxxv</i>
Introduction	1
I. Basic Terms	5
I.1. Synonymity Sentences	5
a. 'Synonymity Sentence': Introduction	5
b. Copy, Instance (Occurrence), Expression	6
c. Metaoccurrences and Plain Occurrences	7
d. Use and Interpretation of an Expression	8
e. Reference to a Single Pair of Occurrences or to Processes of Interpretation	9
f. References to Many Occurrences or Kinds of Occurrences	9
g. References to Norms of Meaning	10
h. Obscure References	10
I.2. Testability of Synonymity Hypotheses	11
a. 'Marginal References'	11
b. References to Occurrences in Texts	13
c. References to Linguistic Norms	16
d. Past, Future, and Possible Occurrences	16
e. Intrapersonal and Interpersonal Synonymity	18
f. Intrasituational and Intersituational Synonymity	21
g. Broadness and Definiteness of Synonymity Hypotheses	21

CONTENTS

I.3. Examples of Synonymy Sentences	23
I.4. Heteronymy	28
I.5. Ambiguity	30
I.6. Substitutional Synonymy:	
Synonymy Between Ambiguous Expressions	33
I.7. Semantic Systems	39
I.8. Interpretative Sentences	45
I.9. Interpretans Expressions and Lists of Interpretations	50
I.10. Synonymic Alternatives	57
I.11. Examples of Lists of Synonymic Alternatives	
and Interpretations	59
I.12. Preciseness: Introduction	62
a. Normative Definition	62
b. Relation to the Vernacular	65
I.13. Preciseness, Interpretation, and Ambiguity	66
a. Preciseness and Interpretation	66
b. Preciseness and Ambiguity	68
I.14. Specification and Elaboration	69
a. Specification	69
b. Specification Relation Between Designations	72
c. Specification of Sentences	74
d. Exemplification: Why Is It Difficult to Differentiate	
Between Precizations and Specifications?	74
e. Elaboration	77
I.15. Connotation, Denotation, Concept Subsumability:	
Terminological Notes	79
 II. Basic Terms Continued	 83
II.1. Receiver Ambiguity and Interrelational Suspension	83
II.2. Definiteness of Intention: Transintentionality	85
II.3. Explication	88
a. Connotational Explication	88
b. Denotational Explication	89
c. The Process of Explication	91
II.4. Reference Classes	93
a. 'Reference Class'	93
b. Unambiguity in Relation to Reference Classes	95
c. Preciseness in Relation to Reference Classes	96

CONTENTS

II.5. Quantitative Measures of Preciseness Based on Reference Classes	98
II.6. Reflexivity, Symmetry, and Transitivity of Some Relations	104
a. Synonymy	104
b. Heteronymy	107
c. Synonymic Alternatives	109
d. Preciseness	110
e. Interpretation	112
II.7. Incomparability and Transintentionality in Relation to Preciseness	113
a. Equality of Preciseness	113
b. Preciseness and Transintentionality	114
II.8. Comparison of Preciseness of n Sentences in Relation to a Heteronymous Reference Class	116
II.9. Preciseness of Single Acts of Communication	119
II.10. The Limited Importance of Single Acts of Communication to a Science and Technique of Interpretation	124
II.11. Schematic View of Requirements of Communication to Many People	125
II.12. Relation Between Knowledge of Context and Preciseness	126
II.13. Interpretational Vibrations Caused by Broadening the Context	128
II.14. Synonymy and Preciseness of Imperatives	132
II.15. Synonymy and Preciseness of Questions	135
 III. Misinterpretation and Pseudoagreement	 137
III.1. To Assent and to Agree: Verbal Agreement	137
III.2. Pseudoagreement and Pseudodisagreement	139
III.3. Communications That Show Symptoms of Pseudoagreement and Other Undesired Properties	142
III.4. Some Important Types of Sequences of Steps in Discussions	148
III.5. Misinterpretation with Weight Effects	150
III.6. Concepts of Preciseness Based on Frequency and Gravity of Misinterpretations	152
III.7. «Mere Questions of Terminology»	153
III.8. Misinterpretation and Pseudoagreement in Relation to Imperatives	154

CONTENTS

III.9. Misinterpretation of Questions	157
III.10. Latent Disagreement	159
IV. Definitoid Statements	161
IV.1. Synonymity Announcement Sentences	161
IV.2. Normative Definitions: Introduction	163
a. Definition	163
b. 'Normative Definition' Introduced	166
c. Identification of Normative Definitions	168
d. Complex Normative Definitions	169
IV.3. Interpretative Announcements	170
IV.4. Normative Definitions Exemplified	172
Note on Normative Definitions in This Work	172
IV.5. Conditions of Two Sentences Expressing the Same Normative Definition	175
IV.6. Purpose of Normative Definitions	178
IV.7. Preciseness of Definiendum and Definiens in Normative Definitions	184
IV.8. How Normative Definitions Are Criticized or Appraised: «True by Definition»	187
IV.9. Descriptive Definitions of Usage	191
IV.10. To Give Descriptive Definitions of Usage and Then to Make More Precise	194
IV.11. Definitions as Condensed Characterizations (Real Definitions)	195
IV.12. Definitions as Condensed Characterizations Exemplified	196
IV.13. Sentences with Complex Definitional Function	200
IV.14. Concepts of Synonymity and Concepts of Definition	204
IV.15. Predictional Theories About the Use of an Expression	206
V. Elementary Analysis	209
A. Description of Synonymity and Ambiguity Hypotheses and of Simple Definitions	209
V.1. Description of Hypotheses Expressed by Synonymity and Ambiguity Sentences	209
V.2. Interpretation of Definitoid Sentences in General	215
V.3. Some Distinctions Exemplified and Tabulated	217

CONTENTS

V.4. Illustrations of Elementary Analysis	226
V.5. Levels of Preciseness of Descriptions of Definitoid Statements	230
V.6. Descriptions of Explicit Definitions	238
V.7. Description of Definitions and Philosophical Analysis	239
B. Analysis of Complex Definitoid Statements and Groups of Definitoid Statements	241
V.8. Inconsistencies and Contradictions Within Complex Definitoid Statements	241
V.9. Analysis of Groups of Definitoid Formulations	244
V.10. Illustration 1: Bryce on 'Democracy'	248
a. List of Bryce's Definitoid Formulations on «Democracy» in <i>Modern Democracies</i> and <i>The American Commonwealth</i>	249
b. Reformulation of Some Definiens Expressions to Facilitate Comparison and Increase the Level of Preciseness	253
c. Tentative Precizations of Bryce's Definitoid Formulations	256
V.11. Illustration 2: Bradley on «Truth»	264
V.12. Metaoccurrence Analysis in General	265
C. Subsumption Analysis	266
V.13. Scope and Definition of Subsumption Analysis	266
V.14. Some Preliminaries Involved in Subsumption Analysis Schematical Survey	268
V.15. Illustration 1: Irving Fisher on 'Wealth'	275
V.16. Illustration 2: Historians on «History»	277
V.17. Survey of Difficulties of Testing Descriptive Definitions by Means of Subsumption Analysis	285
V.18. Definiendum Indications: Their Lack of Preciseness and Elaborateness	286
V.19. Definiens Indications: Their Lack of Preciseness and Elaborateness	289
V.20. Indications of Field of Application: Lack of Preciseness and Elaborateness	293
V.21. A Vicious Circle Created by Interpreting Definiens on the Basis of Examples Offered in Support of Normative and Descriptive Definitions	296
V.22. A Vicious Circle Created by Interpreting Occurrences (Instances) Offered in Support of a Synonymity Hypothesis on the Basis of That Hypothesis	298

CONTENTS

VI. Occurrence Analysis	301
A. Occurrence Analysis Characterized	301
VI.1. Introduction: Meaning Revealed by Use	301
VI.2. Natural Occurrences and Artificially Produced Occurrences	302
VI.3. Main Steps of a Standard Connotational Occurrence Analysis	304
1. Identifying and Specifying of Occurrences to Be Analyzed	304
2. Listing Occurrence Implicates	306
3. Interpreting Occurrence Implicates and Constructing Other Inferences	312
VI.4. Consistency Problems	316
4. Forming and Testing Hypotheses About Usage in the Form of Descriptive Definitions	319
VI.5. Relation Between Practical Testability and the Extent of a Hypothesis's Intended Field of Application	325
VI.6. Limited Choice Analysis	329
VI.7. Analysis of Single Designation on the Basis of Hypotheses About Structure	331
B. Illustration of a Connotational Occurrence Analysis	332
VI.8. Delimitation of the Class of Occurrences to Be Analyzed	332
VI.9. Implicate List	333
VI.10. Inferences in Relation to Occurrences 1–66	344
VI.11. Inferences from Zaslavski's Definitoid Statements on Democracy	354
VI.12. Other Inferences	359
VI.13. Narrow Concepts of 'Authentic Democracy' Versus Broad Concepts of 'Democracy Authentic or Nonauthentic'	361
VI.14. Precization Possibilities of Broad Concepts, Especially Their Specific Conceptual Characteristics	366
VI.15. Precization Possibilities of Narrow Concepts of 'Authentic Democracy'	372
C. More on the Theory of Occurrence Analysis	376
VI.16. The Function of Assumption About Uniformity of Use	376
VI.17. Assumptions About Definiteness of Intention	380
VI.18. Linguistics and Occurrence Analysis: Method of Opposites	381
VI.19. Concluding Remarks on the Connotational Occurrence Analysis	384
VI.20. Occurrence Analysis of Other Varieties	384

CONTENTS

VII. Introduction of a Group of Concepts or Tests of Synonymy	389
A. Concepts of Intrapersonal Synonymy	389
VII.1. Introduction	389
VII.2. The N-Concepts of Synonymy: Synonymy Identified with Presence of a Rule Proclaiming Sameness of Sense	391
Precizations and Elaborations	391
VII.3. Limited Fruitfulness of 'N-Synonymy'	394
VII.4. N-Synonymy Hypotheses: How to Test Them	396
VII.5. The Ds-Concepts of Synonymy: Synonymy Identified with Reported Sameness of Meaning	398
VII.6. Ds-Concepts of Synonymy Introduced by Reference to Questionnaire Procedures	399
Questionnaires of Type Qs1	399
Questionnaires of Type Qs2	403
Questionnaires of Type Qs3	405
VII.7. Truth-Condition Concepts of Synonymy	406
VII.8. Truth-Condition Concepts, Verification, and Certainty	410
VII.9. Cognitive-Weight-Condition Concepts of Synonymy	412
VII.10. Argumentational Synonymy	412
VII.11. Løvestad's Questionnaire	414
VII.12. Recapitulation	416
B. Concepts of Interpersonal Synonymy	418
VII.13. Interpersonal Synonymy Hypotheses Based on Information About Intrapersonal Synonymy	418
VII.14. Systematic Exposition of a Procedure	423
VII.15. Interlude	426
VII.16. Systematic Exposition Continued	429
VII.17. Interpersonal Relations of Interpretation and Preciseness	435
C. Synonymy of Occurrence Analysis	436
VII.18. «Synonymy» Defined in the Terms of Occurrence Analysis	436
VII.19. Introduction of a Concept of 'Occurrence Synonymy'	438
VII.20. Occurrence Synonymy and Connotational Occurrence Analysis	442
VII.21. Occurrence Preciseness	445
VII.22. Occurrence Analysis Disregarding Authors and Intended Meanings: Authoritative Systems as Guides for Interpretation	447

CONTENTS

VIII. Synonymity Questionnaires in Use	451
VIII.1. Scope of the Empirical Studies Reported in This Chapter	451
VIII.2. Empirical Symmetry of the Relations of Qsxy-Synonymity	452
VIII.3. Empirical Evidence of Symmetry of Synonymity Relations as Defined by Questionnaires	454
Questionnaires of Type Qs1	454
Further Qs1 Questionnaires	458
Questionnaires of Type Qs2	461
Questionnaires of Type Qs3	463
Questionnaires of Type Qs4	464
VIII.4. Summary of Results	466
VIII.5. Transitivity of Synonymity Relations: Questionnaire Concepts	466
VIII.6. Empirical Evidence of Transitivity of Synonymity Relations Defined by Questionnaires	467
VIII.7. Interviews Used to Study Previously Given Answers	470
VIII.8. Empirical Evidence from Metaquestionnaires	473
Questionnaire MetaQs1I	473
Questionnaire MetaQs1II	477
A Differential Procedure	478
VIII.9. Difficulties of Questionnaire Procedures	482
General Considerations	482
Difficulties of Qs1	484
Difficulties of Qs2	487
VIII.10. Effect of Reversal of Order of Sentences in Qs3	489
VIII.11. Effect of Training on Classifiability of Answers, Qs5	490
VIII.12. Concluding Remarks	492
<i>Notes</i>	495
<i>References</i>	505
<i>Index</i>	513

List of Figures and Tables

Figures

1. Some items involved in the construction and use of a description of normative or descriptive definitions.	221
2. Construction of a description of normative or descriptive definitions adapted to the case of two designations of the intended field of description.	224
3. Schematic model for subsumption analysis.	272
4. Steps in connotational occurrence analysis.	317

Tables

1. Classification of Bryce's Definitoid Formulations on «Democracy»	251
2. Occurrence List of «Démocratie», etc., in Zaslavski	334
3. Symmetry of Qs1A-Synonymity Relations	457
4. Symmetry of Qs1A-Synonymity Relations (continued)	459
5. Comparison of Answers to Qs1 No. 2.7, Qs1i No. 1, and Qsq1 No. 1	461
6. Symmetry of Qs2A-Synonymity Relations	463
7. Symmetry of Qs3A-Synonymity Relations	464
8. Symmetry of Qs4A-Synonymity Relations	466
9. Transitivity of Qs1- and Qs4-Synonymity Relations	469
10. Comparison of Meta-results	480
11. Effects of Reversal of Order of Response Choices, Qs3	490
12. Classifiability and Training, Qs5	491

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's lingua). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of

what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philo-

sophical palette, not the “world” of his own consciousness as has become the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the “external world,” the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the “immediately given,” which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: “When we try to pick out anything by itself, we find it hitched to everything else in the universe.” Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or “things in themselves” in the sense of Kant's *Ding an sich*. With Naess's “gestalt ontology,” there is no dualistic “I” standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of “one substance,” nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize “living beings” broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our

SERIES EDITOR'S INTRODUCTION

experience of the world is made up of gestalts. “[This] is the world we experience. Nothing is more real.”⁴ People create abstract structures to reflect on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess’s parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess’s “ontological realism” as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of “reality is one” plays a central role in the mature Naess’s approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality’s concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. “As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence.”⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess’s perspective, such accounts by themselves are merely a sign of cultural poverty. “God” could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess’s gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as “the social construction of nature” become oxymoronic. Third, individual organisms exist as knots in

a biospherical web or net. Reality is not anthropocentric; it is not particular to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion.

SERIES EDITOR'S INTRODUCTION

He views humans as essentially fallible and he sees this domain of fallibility as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of

philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative sys-

SERIES EDITOR'S INTRODUCTION

tems can be seen as very “useful fictions,” which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philo-

sophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the "definitive" Arne Naess. He is a troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. "We have all read it. We *still* cheat in argumentation, but now with feelings of guilt."¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as "truth," "democracy," and "private enterprise." . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that

SERIES EDITOR'S INTRODUCTION

contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation the-

SERIES EDITOR'S INTRODUCTION

ory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works*

SERIES EDITOR'S INTRODUCTION

would have simply remained a “great idea” without Doug’s generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of environment should not, in Naess’s view, play a pivotal role in shaping a budding philosopher’s development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess’s philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess’s principal writings. As such, the *Selected Works* is the definitive repository of Naess’s oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess’s philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded,
and should follow his questions wherever they lead.

Arne Naess, “Norway”

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his

SERIES EDITOR'S INTRODUCTION

mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and

SERIES EDITOR'S INTRODUCTION

organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small mountain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potently influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way"—*sva mār̥ga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous

brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his *bon mot*, “simple means, rich ends.”

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he “learned” new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses

SERIES EDITOR'S INTRODUCTION

a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing

their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the "far outside" and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess's 1965 article "Science as behavior" (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the "near outside."

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers' intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers "commonsense" views on the notion of truth. He then related these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substan-

SERIES EDITOR'S INTRODUCTION

tial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as *"Truth" as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's "Common Sense and Truth" (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Ustaaset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created "institutes" of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance move-

SERIES EDITOR'S INTRODUCTION

ment. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “re-education.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi’s catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi’s idea of trying to meet one’s opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war, Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO’s requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy*’s richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politi-

SERIES EDITOR'S INTRODUCTION

cally dangerous character of its items.”²³ Naess’s “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess’s empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess’s frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO’s plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess’s research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepti-

cism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the

SERIES EDITOR'S INTRODUCTION

most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "some-

thing is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation and Preciseness*, to argue that it is an illusion to assert that combined scientific and philosophical or "purely" philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they

SERIES EDITOR'S INTRODUCTION

spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V), was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), “Seek complete self-realization” and “Seek truth,” and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of “Self-realization!” as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against

the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its

SERIES EDITOR'S INTRODUCTION

relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is ". . . to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions taken earlier. Volume VIII includes sections on "Empirical Semantics and 'Truth,'" "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology

and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion, and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a

SERIES EDITOR'S INTRODUCTION

name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work entering into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the "deep ecology movement." Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of "Ecosophy T."

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses

this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach’s proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans’ special capacities for reason and moral consciousness come special responsibilities, particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess’s view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess’s own ontologically inspired “Self-realization!” In its most expansive form, wide-identification is the intuition that nature’s interests and our own coincide, as with Naess’s “Self-realization!”—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual

SERIES EDITOR'S INTRODUCTION

or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they ne-

cessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecologi-

SERIES EDITOR'S INTRODUCTION

cal philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy) make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaran-

thine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this approach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring

SERIES EDITOR'S INTRODUCTION

the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manuscripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

SERIES EDITOR'S INTRODUCTION

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of “Miracle Doug,” Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation’s publishing manager, who in the project’s final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo’s Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU’s dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU’s Research and Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His sugges-

SERIES EDITOR'S INTRODUCTION

tions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

SERIES EDITOR'S INTRODUCTION

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of “Experts’ views on the inherent value of nature.” The original editions of Naess’s texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie’s replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible “work fairies” that were constantly pulling me back to my office don’t actually exist. I can’t wait.

Most of all, thanks to Arne Naess for placing his trust in me—it’s been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like

SERIES EDITOR'S INTRODUCTION

receiving Pandora's box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne's writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder's "Axe Handles." The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely

SERIES EDITOR'S INTRODUCTION

competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet*

SERIES EDITOR'S INTRODUCTION

Liv (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001).
A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.
6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise

SERIES EDITOR'S INTRODUCTION

- "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
 10. Letter to Doug Tompkins, May 26, 1992.
 11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
 12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
 13. Personal communication, April 30, 1997.
 14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
 15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
 16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

SERIES EDITOR'S INTRODUCTION

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.
24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by

SERIES EDITOR'S INTRODUCTION

- Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
 26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
 27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhi's Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
 28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
 29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
 30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecology approach to ecophilosophy," the "deep ecology movement," and Naess's "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion

SERIES EDITOR'S INTRODUCTION

of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was

AUTHOR'S INTRODUCTION TO THE SERIES

"A philosopher." In fact, I had already conceived of myself as one. I viewed the writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that "What do I mean?" is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these "ordinary" people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems

AUTHOR'S INTRODUCTION TO THE SERIES

discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my

AUTHOR'S INTRODUCTION TO THE SERIES

knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclination very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

AUTHOR'S INTRODUCTION TO THE SERIES

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II),

AUTHOR'S INTRODUCTION TO THE SERIES

The Pluralist and Possibilist Aspect of the Scientific Enterprise (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity, attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

To write and rewrite this big work was a formidable duty, a five-year heavy march after the Second World War. It was performed to convince the world of analytic philosophers what it takes to interpret a text if you are an empiricist and a human being absorbed in the unsurveyable manifold of diverse cultural realities.

We all interpret texts every day. We sometimes feel that our interpretation of a text lacks preciseness. What is required to unfold the world of different interpretations, all of which are plausible enough to warrant consideration? What are the main traits of this manifold, and is it ever possible to reach a so-called correct interpretation? What does *correctness* mean here?

This work is polemic in a strange sense. The *tone* is not polemical, but my feeling at the time of its writing was one of desperation and disgust. The analytic philosophers seemed to be caught in the superstition that reality has a fixed core, a nucleus. Applied to language, this is conceived as *the* logic of language, a deep grammar, a universal structure, or whatever. The streams of experience of interpretation and preciseness were not taken seriously. To show that this was the case demanded examples. In *Interpretation and Preciseness* I use for this purpose a short text on the then Soviet democracy written by a Soviet ideologist—one of the editors of *Pravda*—David Zaslavski. The words *démocratie*, *démocratique*, and *antidémocratique* (also in plural form) occur 192 times in the 107 very small pages of the French translation. I posed the question “How can I get to know fairly exactly what Zaslavski means by *démocratie* in his little book?” By looking at his definitions? No. His definitions are only *metaoccurrences*, and, as we all know, authors rarely follow their own definitions. Furthermore, the sentences expressing the definitions are usually so vague and ambiguous that supposed

AUTHOR'S PREFACE TO THIS EDITION

applications cannot be severely tested. As Karl Popper would say, we cannot always decide whether an occurrence of the term follows a certain definition, if the verbal expression of the definition is vague and ambiguous. Consequently, we have to investigate *closely* each of the 192 occurrences! There was, and is, a need for this kind of extensive empirical research within the area of social thinking and rhetorical communication. One of the many fruitful methods for doing part of this job is outlined in this volume, *Interpretation and Preciseness* (SWAN I).

I think philosophers who recognize that their views about a philosophical subject have an empirical aspect or component should not shy away from doing empirical research, if that would be of some help. Research is necessary on a large scale because "language" is much more unruly than widely accepted within the milieu of analytic philosophy. I write *language* in quotation marks because the distinction between language and speech is relevant: both the actual performance of speech acts and the hypothetical rules governing them are in a constant riverlike movement. How I felt about this situation from the time of my stay with the logical empiricists in 1934 through 1935 in Vienna, and later in the 1940s, is explained in the long 1952 foreword and introduction to *Interpretation and Preciseness*.

The general social and political result of neglecting empirical investigations of the use of words and expressions seems clear: unawareness, sometimes deliberate, of the function of slogans and slogan-type thinking. Terms like *democracy*, *freedom*, *truth*, *justice*, *exploitation*, and *national interests* occur in important documents, in announcements, in social and political propaganda, and in general discourse in all societies, whether democratic or not. I proposed that empirical investigations, especially what in *Interpretation and Preciseness* is called *occurrence analysis*, should be institutionalized and regularly carried out.

My conclusion, after being the scientific leader of the East/West controversy project for UNESCO in 1948 through 1949, was that great conflicts can be clarified through semantic and argumentation analysis, and that such clarification does to some modest degree decrease the level of violent, irresponsible communication. In this respect, the writing of *Interpretation and Preciseness* was influenced by Gandhi, who was able to discuss with equimindedness, even in extreme conflicts between Hindus and Muslims.

In the 1950s I talked with Noam Chomsky at MIT. At that time he was

AUTHOR'S PREFACE TO THIS EDITION

working on his “deep grammar.” He knew my work in *Interpretation and Preciseness*. He said that it would have little impact. In a mild way, he told me that his approach to language *would* have an impact, and it certainly has! My way was not to study language for the sake of a general understanding of what language is. He said that what should and must be done was to follow a very different direction of research from *mine*. He pointed to *his* direction and invited me to join. He gave me the impression of being seriously interested in language and linguistics, and I was not. I wished to participate in and help to resolve conflicts that disturbed me. I never met him again, but did of course often think how right he was in his intuition about timing. He opened up work for thousands of researchers on language. The kind of research I thought should be done on an extensive scale did not materialize. This was a huge disappointment to me.

Why did I use elementary symbolic logic when stating theorems and conceptual structures in *Interpretation and Preciseness*? I did it both for economy of expressions and beauty. Very early in life, I admired *Principia Mathematica* by Bertrand Russell and Alfred North Whitehead. The notation I adopted follows that of David Hilbert and Wilhelm Ackerman's beautiful textbook of symbolic logic (1950). It is a sheer joy to follow their proofs! I hope readers today will be inspired by this logical and empirical approach to understand better how language is actually used and comes out of individual and cultural contexts.

Arne Naess

2004

Acknowledgments for the 1953 Edition

At every stage in the development of this work, I have been stimulated and encouraged by the constructive criticism of students and research personnel. I am especially grateful for their efforts to use and modify the basic tenets of this work. Ideas have been given freely and abundantly. This applies to all the authors listed in the Foreword. Numerous students have given their time to reply to questionnaires without knowing the exact purpose of the questionnaires.

In the last few years I have profited from discussions with Professors David Rynin, Leo Apostel, and Chaim Perelman, the first-named having also read the proofs and improved my English. Needless to say, I alone am responsible for the remaining defects.

Several people—Siri Blom, Finngeir Hiorth, Jakob Meløe, Kjell Sellin, and Mia Berner Øste—have been kind enough to help in making indexes and in checking up on innumerable sources of error.

Norges Almenvitenskapelige Forskningsråd provided money for research purposes and Det Norske Videnskaps-Akademi i Oslo defrayed the printing costs. I wish to express my gratitude for this generous assistance.

Author's Foreword to the First Edition

The present work is a link in a series of monographs and articles. Its aim is explained in the introduction. What I hope to do in this foreword is to describe the genesis of this work and to place it in perspective vis-à-vis the related works of certain other authors.

In *Truth as Conceived by Those Who Are Not Professional Philosophers* (1938), I tried to show the inadequacy of the intuitive methods employed by philosophers to determine how «true» and related terms are conceived, defined, and used by ordinary people. The exclusive use of intuitive methods for these purposes tends to result in an underestimation of the diverse trends of reflection among those who are not learned. The various kinds of so-called theories of truth are represented in an embryonic stage of development among young people who are strangers to professional philosophy.

Dialogues with those who are philosophically uneducated convinced me that acceptance of intuitions reported by the philosophically sophisticated about the verbal and conceptual habits of others leads to confusion and error. These dialogues also convinced me that if we place expressions from an everyday language into a logical machine, our interpretations are likely to be unsatisfactory unless we have empirically confirmed information about the conventional uses of those expressions. My reference here is not only to the use of «not», «if-then», «true», «possible», «necessary», and other such expressions, but also to the use of terms in physical, biological, psychological, and other inquiries in which logical or mathematical calculi are meant to be employed.

It is not necessary to depart from philosophical pastures to see the need for trying out empirical procedures aimed at discovering the linguistic uses and conceptual commitments of the man in the street. Philosophers dis-

AUTHOR'S FOREWORD TO THE FIRST EDITION

agree abundantly among themselves concerning so-called «ordinary» or «conventional» or «common sense» uses of expressions in conversational languages—for example, G. E. Moore and C. L. Stevenson on «good», N. Malcolm and Bertrand Russell on «know», and R. Carnap and G. H. von Wright on «probable». Even authors with the same or similar general philosophical convictions often differ in this regard—for example, R. Carnap and H. Reichenbach on «probable», and M. Black and N. Malcolm on «to know». For additional examples, the reader is referred to essays in Schilpp (1942) and articles in recent volumes of the periodicals *Mind*, *Analysis*, and *Philosophical Review*.

I do not contend that these philosophers in all cases *should* have investigated conventional usage by other means than intuition. I merely suggest that empirical procedures should be applied to empirical questions. When philosophers offer conflicting answers to questions that have empirical components, empirical research is needed.

Various mimeographed studies have preceded this book—for example, *Interpretation and Preciseness*, I–VI (1947–1951).¹ I there suggest, among other things, that debates about synonymy might be more illuminating if we used empirical procedures to obtain information concerning similarities and equivalences of cognitive meaning. Evidence of exchangeability of one term for another is an example of such information. Occasionally, we ask ourselves, and not other people, Do I interpret the text in the same way if the one term is exchanged for the other? Much more important and extensive information can be obtained by less crude questions (for example, those of the questionnaire Qs6, page 409) and by the occurrence analysis described in chapter 6. Occurrence analysis, however, is time-consuming and complicated, and it will be heuristically valuable to have shortcuts.

The use of empirical procedures along the lines suggested in those mimeographed studies has been promoted by various investigators in various fields, inside and outside philosophy.

The following authors, among others, make use of the kind of conceptual structure or empirical procedure described in the present work: Fluge (1944a, 1944b), Grimm (1954), Gullvåg (1951, 1954), Haaland (1947), Løvestad (1945), Naess (1938, 1942, 1946, 1953, 1954), Ofstad (1950a, 1950b, 1952, 1953), and Tønnessen (1948, 1949, 1950–51). L. Løvestad (1945) used a questionnaire with interesting results to study what physicists might mean by

AUTHOR'S FOREWORD TO THE FIRST EDITION

«testable» as predicated on physical laws (see page 414ff.). A. Haaland employed subsumption analysis (page 266) in his examination of Nietzsche's use of «*Wille zur Macht*». H. Tønnessen used various empirical methods in his analysis of the term «type» in psychology and elsewhere, and in his other investigations. He has also extended his studies into noncognitive aspects of meaning. H. Ofstad, in his studies of «legal norm» in the writings of Ross and Kelsen, has employed various empirical techniques, and thereby shed light on basic terms in the philosophy of law.

These and a series of investigations not yet finished make use of one or more procedures described in this work. The results have stimulated me to do additional theoretical work in these areas.

So much for the wider, largely cooperative work of which the present study is a part. Let me pass on to some features of the philosophical background responsible for the kind of approach I have adopted.

A prominent feature of the background that has produced this emphasis on empirical techniques is the tremendous development in formal logic and related fields. That development has inspired many of the trends in modern analytical philosophy, and admittedly with results of lasting value. The stress, however, on formal and axiomatical methods has endangered the free flow of empirical research in philosophy. There is a tendency to look upon deductive and axiomatical procedures as somehow more philosophical than empirical ones, and this has undermined the position of the broad empirical traditions (Aristotle, Ockham, Locke, Berkeley, Hume, Bentham, John Stuart Mill), which in my view deserve a strong representation in contemporary culture. The charge of psychologism against thinkers of this tradition is well founded, but has been largely misapplied. It has discouraged research into genuinely empirical components of question complexes of a mixed formal and empirical character.

The kind of activity today referred to by names such as «logical analysis» and «conceptual clarification», is only partly deductive and axiomatical in character. Much of it seems to me to rest on intuitions about one's own and others' uses of terms and to contain recommendations or preferences in matters of terminology. The intuitional approach is excellent so long as the agreement in results is of the intersubjective, intercultural kind that characterizes some of the results in the formal or factual sciences. Such agreements, however, have not been obtained.

AUTHOR'S FOREWORD TO THE FIRST EDITION

Very roughly, one may distinguish a deductive, an intuitional, and an empirical component in the writings of analytical philosophers. Even in those cases in which deductions and intuitions can help us considerably, consistent neglect of the empirical component will bring research toward stagnation. If empirical studies are neglected, we shall see much intelligent debate along intuitionist lines, but less of that process that many of us find so inspiring in the history of philosophy and science: the development of new branches of reliable knowledge as a result of combined philosophical and scientific efforts. To my mind, the ideal philosophical *research* is that which *starts* from vague general questions or hunches that are apparently impossible to handle except by pure speculation and with the aid of intellects more profound and penetrating than those of mere journey-men scientists. By series of transformations, more and more aspects of the questions are treated by methods yielding intersubjective agreement about the results and making it possible for disinterested observers to check them.

It is not my intention here to provide a general validation of the principles underlying this work—that would require another book—but to try to convey a picture of the motives for this work. In general, I have been led by a conviction that what is not testable deductively should be analyzed with the aim of discovering how it otherwise might be tested, and by a conviction that if intuitions are used, procedures should be devised by which intuitive results of different, presumably competent people can be compared. If the intuitive results seem to conflict or are difficult to delimit and express, one should look for methods by which to avoid at least some of the intuitive components of the procedure.

The vision that I have of the task of those who wish to do philosophical research, and not just engage in philosophical debate, is such that the cooperation of many workers over long stretches of time is just as essential as in the departments of science, and that any light that might be thrown on any component of a philosophical question by means of empirical methods is of value. Critics who would assume that the methods described in this book aim at solving questions that the intuitively and deductively operating logician has not been able to solve, mistake the intention.

Against such a charge of immodesty, I should like to stress, first, that instruments of research are introduced here that only long practice and

AUTHOR'S FOREWORD TO THE FIRST EDITION

hard methodological analysis can bring into a more mature shape. The methods and results are preliminary, but it is our impression that advances along the lines suggested justify our expectations.

Second, the concern of logicians is primarily normative: they construct and propose systems of rules of usages rather than assert anything definite about relations among usages. The construction of systems and the testing of their purely formal adequacy are such tremendous tasks, involving so many technical difficulties, that logicians cannot be expected to take up the less central descriptive tasks involved—for example, the task of showing that one concept of implication is more in agreement with the use of «if . . . then» in the factual sciences than another, or that the ordinary usage of the term «true» leads to paradoxes.

One more ingredient of my general motivation or background ought to be mentioned: I have been impressed by changes in classification systems and conceptual frameworks as the result of empirical research activity. The changes have made it easier to promote further research and to compare findings. I have, accordingly, not hesitated to introduce new concepts closely related to particular research techniques, using as concept designations old terms with a wide variety of vague meanings. When research activities arise out of a philosophical context, the vocabulary of research will be different from the vocabulary used in the preceding philosophical debate.

The presumption I have made in dealing with questions arising in philosophical debate, such as «does 'a' mean b?» or «Does 'a' mean the same as 'b'?», is that it is unfruitful to stick to vague terms such as «mean» in the technical reports on discoveries made by empirical procedures. It is more rewarding to let research modify the conceptual structure, and to develop terminology closely related to the procedures. This principle, so successfully used in many disciplines, is used here even when crude questionnaire procedures are employed. That is, certain concepts are introduced in such a way that subsumption under them rests on results obtainable by use of questionnaires.

Last, but not least, I have been interested in stimulating researchers who are basically motivated by philosophical questions but who do not shun empirical work of a rather unspiritual kind when such work proves to yield information they need.

Note on the Use of Symbolic Logic

Sheer enthusiasm for symbolic logic and the potentialities of formalization led me to plan a development of semantics as a formalized system, or, to be more specific, to have two parallel versions, one deductive and one hypothetico-deductive. After some years, however, it seemed to me practically impossible to concentrate simultaneously and seriously both on the empirical technicalities of questionnaire techniques, data gathering, and occurrence analysis and on the logical technicalities concerning formalization. Again and again, the requirements of formalization turned my attention toward distinctions that were of little or no relevance to the empirical investigations. A division of labor was needed. I found my contemporaries to be more attracted to formalized semantics and logical analysis than to empirical research in semantics. This seems to owe to the tradition already alluded to, which attracts students with a contemplative or mathematical bent rather than students willing to carry out programs of empirical research.

For these reasons, I abandoned my plan for a formalization of results of semantical research, and gave empirical studies priority. I found, however, that some symbolizations were good for expository purposes and economy of thought. For example, there are a series of concepts with important similarities and important differences that conveniently can be surveyed in a notation of the calculus of relation. These symbolizations are used for some of those concepts:

(1s)		Syn (a_1b_1)
(2s)	(i) (j)	Syn (a_ib_j)
(3s)	(i) (j)	Syn ($a_iP_1b_jP_1$)
(4s)	(i) (j)	Syn ($a_iP_1b_jP_2$)
(5s)	(i) (j) (k) (l)	Syn ($a_iP_jb_kP_l$)
(6s)	(i) (j) (k) (l)	Syn ($a_iP_jS_1b_kP_lS_2$)

The natural-language equivalents of these symbolizations are clumsy, even if certain finer nuances of the symbolic formulations are left unrepresented. The rough equivalents of the first and the third are:

AUTHOR'S FOREWORD TO THE FIRST EDITION

- (1) The expression «a», at the occurrence place a_1 , is synonymous with the expression «b», at the occurrence place b_1 .
- (3) Every occurrence of the expression «a», as used or interpreted by the person P_1 , is synonymous with every occurrence of the expression «b», as this expression is used or interpreted by P_1 . (General intrapersonal synonymy between «a» and «b» for P_1 .)

In the context in which these and analogous clusters of concepts are discussed, the symbolic notation seems to provide an economy of energy even for the reader with very little knowledge of symbolic logic. In this book, only a few sections make use of the powerful tool of the calculus of relations, and even in such sections (for example, section 6 of chapter 2), expository purposes predominate. This explains why the logical aspects of the symbolic notation are not discussed in detail. The notation itself follows roughly that of *Principia Mathematica* and Hilbert and Ackermann (1938).

The expression «shall in this work be used synonymously with» is represented by « $=_D$ » in symbolizations that function to introduce a normative definition. It expresses my decision to use a sentence or designation in a certain way. After the decision has been made, we need to refer to it. In such cases, the symbolization does not *introduce* a normative definition. The expression «shall in this work, according to an antecedently introduced normative definition, be used synonymously with» is symbolized by « $=_d$ ». We use two distinct symbolizations because of the important practical and theoretical difference between introducing and using a normative definition.

Use of Single Quotation Marks

Single quotation marks are used for concepts. Thus, the title of a section in chapter 2 is Reference Classes, but the first subtitle is 'Reference Class'. This first subsection furnishes the introduction to a concept of reference class. The next subsections contain mainly statements about reference classes, for example, about their usefulness.

A title of a section of chapter 6 runs as follows: Precization Possibilities of Narrow Concepts of 'Authentic Democracy'. It is not intended in chapter 6 to speak about concepts of concepts of authentic democracy, but sim-

ply about concepts of authentic democracy. In general, the form «concept of 'x'» is to be understood as meaning the concept of x.

Use of Guillemets for Double Quotation Marks

With the Aristotelian securely seated on the throne of logic for many centuries, the sudden and impressive growth of modern logic was a magnificent surprise. It should be added that one of the most surprising events was the development of the function of quotation marks—the consistent use of which seems now sometimes to be considered a test of competency in logical theory. The use of many quotation marks, however, spoils the look of the page (in my eyes), and I have never been able to try sincerely to be consistent in their use.

Accordingly, I have adopted the French *guillemets* (« ») for use where one would expect to find double quotation marks in an English-language publication. I have, however, omitted *guillemets* (and double quotation marks) in symbolizations such as $Syn(ab) \ \& \ Amb(a) \ \& \ Amb(b)$, and '*a*' is synonymous with '*b*' and '*a*' is ambiguous and '*b*' is ambiguous, and also in contexts in which such symbolizations play a dominating role. Thus, in such a context I write, $Syn(ab)$ is an abbreviation for (i) (j) $Syn(a_i b_j)$ —not «'Syn (ab)' is an abbreviation of '(i) (j) $Syn(a_i b_j)$ '».

Elsewhere, italics are sometimes used in the place of *guillemets*—for example: A list of expressions will be called an *intrapersonally heteronymous reference list if*. . . . Sometimes both italics and *guillemets* are used.

The letters T, U, V, with or without subscripts, are never placed within *guillemets*. They always stand for sentences or for designations and never for that which sentences or designations may express or denote. One of the chief reasons for introducing T, U, V, is just this point: they are used instead of the clumsier «a», «b», «c», especially in contexts containing many references to sentences or designations.

Guillemets are used to set off both quotations and quotations within quotations.

Introduction

If this publication is going to be useful to others in their research, I shall have to make quite clear just what the conceptual structures and empirical investigations that I describe aim to accomplish. This is, alas, a difficult task because the aim is *similar* to, but slightly different from, the aim of various contemporary studies in logical analysis, theory of communication, conceptual clarification, and so forth. If our intention is *identified* with any definite aim as depicted in those contemporary studies, it will tend to lead the reader astray.

One misconception I should like to mention at once: that I try to solve problems that philosophers down the ages have not succeeded in solving. What I have tried to do is to open up certain channels of research of a rather basic, but trivial, kind. The research I have in mind can be carried out only step-by-step as a cooperative enterprise. What is reported in this single volume has a pronounced preliminary character.

The immediate aim of this work is to contribute to the foundation of semantics and the theory of communication as an empirical science.

A variety of concepts of importance to semantics are defined in terms of a set of concepts of synonymy. Among the synonymy concepts, those of *interpersonal* synonymy are based on *intrapersonal* synonymy. To avoid vague controversy about relations of intrapersonal synonymy, I have introduced certain procedures, most of them in the form of tests (see chapter 7). One may prefer tests other than those introduced in this work, but the main point is that tests or procedures of some kind are developed, and assertions about intrapersonal synonymy thereby become an object of research rather than ingredients in intelligent conversation.

The term «semantics» is a catchword that does not convey any definite

INTRODUCTION

meaning. This work concentrates on cognitive aspects of verbal communication—for example, the attempt to convey information—but spoken and written expressions are not abstracted from the context of individuals' speaking, writing, listening to, and reading those expressions, as is legitimately done in pure logical analysis. The basic materials for us are occurrences of utterances. Thus, «it rains» is in itself no immediate object of our concern, but we are concerned with «it rains» as uttered or heard, or instances of that sentence in texts.

A major defect of much contemporary discussion of meanings and their relations seems to me to be an underlying assumption that one need not work with definite groups or lists of occurrences of a phrase in order to arrive at conclusions about usage. There is a tendency to avoid descending from assertions about the meaning, for example, of «truth» to assertions concerning instances of «truth». This avoidance slurs over a great number of difficulties inherent in the kind of inductions leading from assertions concerning definite instances of a term («occurrence implicates», etc.) to assertions concerning general meaning. These difficulties are analyzed in chapters 5 and 6. From the very beginning of chapter 1, much stress is laid on the analysis of semantic hypotheses in terms of hypotheses concerning definite instances (occurrences) of terms or sentences.

The difficulties inherent in attempts to «find the meaning(s)» of terms or sentences by analysis of occurrences have led us to give up the customary concepts of meaning. Instead, certain concepts of occurrence synonymity are introduced, which to some extent may be helpful in situations in which we are accustomed to rely on «finding the meaning(s)».

The optimism inherent in inductions or intuitions about meaning seems to stem from an inadequate distinction between the act of giving meaning—as in defining—and the act of finding meaning. Therefore, theory of definition occupies a central place in the following exposition.

The *semantics of cognitive communication*, as studied in this work, is intimately related to linguistics as an empirical science. It is legitimate to ask, Why not leave this branch of research to linguists, especially the lexicographers? The answer would be that the kind of work that lexicographers have done so far is not sufficiently explicit in its methodology to permit facile extension to those tasks that the historian of ideas, the expert in logical analysis, and others are trying to solve. Nevertheless, close cooperation

with linguists is needed. It is our hope that within thirty years, a person motivated by interest in the theory of knowledge, rather than by interest in language, may find linguists eager to furnish what he needs of semantical information.

The contribution to a theory of cognitive communication outlined in this work is designed to be of help to philosophers with an analytical and empirical bent. I hope, however, that it also will be of help in a much broader kind of research. I hope this study will be of use to those who are carrying out comprehensive studies of certain terms or phrases as they occur in politics, religion, and ethical or other kinds of indoctrination; or of terms in some of the sciences including history, theory of law, and other branches of the humanities.

Further, the conceptual structure and empirical techniques are relevant to studies of verbal agreements and disagreements, for example, as they are listed as results of questionnaire findings. In what sense do 100 «Yes»'s listed as «answers» to a question represent an «agreement» in opinion about something? Assertions in the social sciences and in other fields in which questionnaires are used are usually based on hypotheses about interpersonal synonymy. The contents and testing of such hypotheses are one of our basic subjects.

In saying that the present work is a contribution that might be helpful in all the above-mentioned fields of study, I do not mean to pretend that other approaches are not helpful. In many, if not most, situations, cognitive communication is sufficiently well analyzed by use of common sense, intuition, or deduction. Techniques such as occurrence analysis (see chapter 6) are mainly useful when disagreements among students of semantics already have arisen, and only when the problems are judged to be sufficiently interesting to warrant months or years of work.

Scepticism

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Scepticism

Wonder and Joy of a Wandering Seeker

Revised and Edited by Harold Glasser
in Cooperation with the Author
and with Assistance from Alan Drengson

VOLUME II

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in English by Universitetsforlaget, Oslo, 1968.
Published simultaneously in English by Routledge & Kegan Paul, London and
New York, and Humanities Press, London.

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>Series Editor's Introduction</i>	<i>xi</i>
<i>Author's Introduction to the Series</i>	<i>lvii</i>
<i>Author's Preface to This Edition</i>	<i>lxiii</i>
<i>Author's Foreword to the First Edition</i>	<i>lxv</i>
I. Pyrrho's Scepticism According to Sextus Empiricus	1
Introduction	1
A Short Account of Sextus's Pyrrhonism	2
The Sceptical Ways of Announcement	7
The Dogmatic Ways of Announcement	11
Neutrality Toward Subjectivist Phenomenalism	14
The Sceptic's Reference to the Existence of Opposite Views	20
The Mature Sceptic: A Moderately Keen Seeker and Doubter?	23
The Sceptic: A Philosopher?	26
Defining Scepticism	30
II. The Psychological Possibility of Scepticism	33
Introduction	33
Is Scepticism More Logically Than Psychologically Impeccable?	33
Do the Sceptic's Actions Betray His Dogmatism?	35
Can the Sceptic Believe?	43
Must the Sceptic Be a Doubter?	48
Is the Sceptic Unperturbed by Modern Science?	49
Is the Sceptic Sensitive to the Difference Between	
Real and Apparent?	50
General Outlooks Generate Scepticism	52
Can We Assume That Sextus and His Less Articulate Friends Fulfill	
the Requirements?	53

CONTENTS

III. Scepticism and Positive Mental Health	57
Introduction	57
Confrontation with Six Criteria of Positive Mental Health	57
The Alleged Scepticism of St. Augustine and Others	62
The Moderate or Fragmentary Scepticism of the Unphilosophical	64
Encouraging a Sceptical Bent of Mind: Can It Ever Be Right?	66
IV. Conceptual Complementarity of Evidence and Truth Requirements	71
Introduction	71
Restrictions and Qualifications	73
The Shift from Plain Announcing of Knowledge, to Justifying Claims, to Saying One Knows	74
Requirements of “Knowing” Involving Three Questions:	
Corresponding Questionnaires	78
The “Third-Person” and “First-Person” Questionnaires	78
A Conclusion on “Reaching” Knowledge	86
Concepts of Knowing Without a Separately Satisfied Truth Requirement	87
A Suggestion Not to Use Knowledge Expressions Under Certain Circumstances	93
Use of “Know” and Definiteness of Intention	96
A Conclusion on the Complementarity of Truth and Evidence	102
V. Dialectics of Modern Epistemological Scepticism	105
Introduction	105
Standards Relative to Stage of Dialogue	108
Maximum Requirements	110
Maximum Strengthening of Requirements in the Face of Mistakes	113
Maximum and Abnormal Repercussions	116
“I Know Nothing”: General Linguistic Counterargument	118
Circularity of the Sceptic’s Argument	120
The Conclusiveness of Conclusive Evidence: Social and Linguistic Rightness and Truth	120
Examples of Things We Know or Can Know	123
Examples of Evidence Fusing with the Evidenced	128
Incorrigibility and Fallibility	129
Corrigibility as a Requirement of Scientific Knowledge	131

CONTENTS

Can the Incorrīgibility Requirement Ever Be Satisfied?	133
The Incorrīgibility of Truth	139
Critical Inspection of Arguments in Favor of Incorrīgibility as Unattainable	139
Our Penultimate Conclusion on Modern Scepticism	143
Our Ultimate Conclusion on Modern Scepticism	147
<i>Notes</i>	149
<i>References</i>	159
<i>Index</i>	165

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of

what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philosophical palette, not the “world” of his own consciousness as has become

the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related *gestalts*—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate *gestalts* are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our experience of the world is made up of *gestalts*. "[This] is the world we experience. Nothing is more real."⁴ People create abstract structures to reflect

SERIES EDITOR'S INTRODUCTION

on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess's parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess's "ontological realism" as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of "reality is one" plays a central role in the mature Naess's approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality's concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. "As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence."⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess's perspective, such accounts by themselves are merely a sign of cultural poverty. "God" could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess's gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as "the social construction of nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular

SERIES EDITOR'S INTRODUCTION

to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility

SERIES EDITOR'S INTRODUCTION

as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his

rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative systems can be seen as very "useful fictions," which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others

SERIES EDITOR'S INTRODUCTION

as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess's hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess's view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems' requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a

troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. "We have all read it. We *still* cheat in argumentation, but now with feelings of guilt."¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as "truth," "democracy," and "private enterprise." . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy

SERIES EDITOR'S INTRODUCTION

and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of

SERIES EDITOR'S INTRODUCTION

print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a "great idea" without Doug's generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of envi-

SERIES EDITOR'S INTRODUCTION

ronment should not, in Naess's view, play a pivotal role in shaping a budding philosopher's development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess's philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess's principal writings. As such, the *Selected Works* is the definitive repository of Naess's oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess's philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded,
and should follow his questions wherever they lead.

Arne Naess, "Norway"

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep

rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small moun-

SERIES EDITOR'S INTRODUCTION

tain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potently influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way" — *sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek

broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The

turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that

change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess's 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers' intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as “*Truth as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's “Common Sense and Truth” (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Us-

SERIES EDITOR'S INTRODUCTION

tao set. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created “institutes” of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein’s main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo’s Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi’s catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi’s idea of trying to meet one’s opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war,

Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO's requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy's* richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess's “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess's empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess's frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

SERIES EDITOR'S INTRODUCTION

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO's plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess's research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on

scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is

SERIES EDITOR'S INTRODUCTION

Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation*

and Preciseness, to argue that it is an illusion to assert that combined scientific and philosophical or "purely" philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of "fundamental theories" is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V),

SERIES EDITOR'S INTRODUCTION

was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhi's Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), "Seek complete self-realization" and "Seek truth," and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of "Self-realization!" as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by

Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions

SERIES EDITOR'S INTRODUCTION

taken earlier. Volume VIII includes sections on "Empirical Semantics and 'Truth,'" "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion,

and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work enter-

SERIES EDITOR'S INTRODUCTION

ing into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach’s proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans’ special capacities for reason and moral consciousness come special responsibilities,

particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and

SERIES EDITOR'S INTRODUCTION

interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three

key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy)

SERIES EDITOR'S INTRODUCTION

make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this ap-

proach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manu-

SERIES EDITOR'S INTRODUCTION

scripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and

SERIES EDITOR'S INTRODUCTION

Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also

SERIES EDITOR'S INTRODUCTION

performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-

SERIES EDITOR'S INTRODUCTION

Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible “work fairies” that were constantly pulling me back to my office don’t actually exist. I can’t wait.

Most of all, thanks to Arne Naess for placing his trust in me—it’s been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora’s box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne’s writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder’s “Axe Handles.” The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser

2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The

SERIES EDITOR'S INTRODUCTION

first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.

SERIES EDITOR'S INTRODUCTION

6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary

SERIES EDITOR'S INTRODUCTION

philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as

SERIES EDITOR'S INTRODUCTION

being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.

24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhis Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecol-

SERIES EDITOR'S INTRODUCTION

ogy approach to ecophilosophy," the "deep ecology movement," and Naess's "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was "A philosopher." In fact, I had already conceived of myself as one. I viewed the

AUTHOR'S INTRODUCTION TO THE SERIES

writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that “What do I mean?” is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these “ordinary” people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally

AUTHOR'S INTRODUCTION TO THE SERIES

necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclina-

AUTHOR'S INTRODUCTION TO THE SERIES

tion very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it

AUTHOR'S INTRODUCTION TO THE SERIES

natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity,

AUTHOR'S INTRODUCTION TO THE SERIES

attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

We sometimes say “She has an open mind” or “His mind is closed.” Doors or windows may be more or less open or closed, and they may be completely open or shut. What would correspond to this when we speak of being open to the possibility that an assertion is not true? What about full openness to this possibility, whatever the assertion imagined so far? Would one’s capacity to make a decision completely disappear? Is it deadly to have a completely open mind as to truth and falsity?

In relation to knowledge and truth Sextus Empiricus divides philosophers into three categories: (1) those who believe they have found at least one truth, (2) those who deny the possibility of establishing any truth, and (3) those who neither think they have found a truth nor believe it is impossible to establish any; they have not given up on finding one, a search they tentatively suppose is not of great importance to their happiness. It is not deadly at all. Sextus called them sceptics, Pyrrhonic sceptics, or just seekers (*zetetics*).

I find it strange that the term *scepticism* has been used mostly to refer to those who dogmatically reject the possibility of knowledge in the sense of establishing truths. Philosophers have published a series of good arguments against this view. Very few take up the third view for serious discussion. It is an approach with a kind of complete openness in principle. Because I feel that wonder is not only the beginning but also the likely end of any philosophical inquiry, the third approach has always been of central interest to me. In this SWAN II volume, I show why I feel at home with the kind of openness favored by Sextus. One who has this kind of openness and seeks I call a zetetic. (SWAN VIII contains papers on zeteticism.)

To me every clearly stated question, if taken seriously, leads to other questions, and sooner or later we arrive in the realm of philosophy. From there I see no *theoretical* escape. In practice, of course, I get tired and certain

AUTHOR'S PREFACE TO THIS EDITION

tentative solutions remain on my list. Philosophy starts and ends for me with wonder—or does it? I have not yet thought my last thought—or perhaps I have?

To wonder is not the same as to be in a state of doubt. Pyrrhonic sceptics and zetetics tend not to doubt but to trust. A zetetic is always learning and changing and has a flexible attitude toward language and life.

Arne Naess

2004

Author's Foreword to the First Edition

In the present work I attempt to give a concise account of sceptical philosophy in its most radical and important form and try to remedy certain weaknesses in the traditional ways of describing this philosophy as well as respond to certain arguments that have been brought against it.

I believe there are many good reasons for investigating various forms of thinking traditionally referred to as scepticism. First, as with many other viewpoints, the force of sceptical attitudes makes itself felt acutely, making one at least temporarily a sceptic. Second, when we feel far from scepticism, it is often because we have accepted or postulated certain fundamental positions or principles, but only for the time being. From time to time these fundamentals appear arbitrary or at least less evident, obvious, or even useful, and then the attitude of sceptical "looking around" reasserts itself. Thus, many of us are nomads in philosophy, and sceptical attitudes or doctrines are our recurring pastures. Third, sceptical philosophies, and especially Pyrrhonism as pictured by Sextus Empiricus, are mostly misunderstood and apt to be described in ways that make them appear unnecessarily crude or absurd. There is room for a more sympathetic study of the ancient texts. The reader will find that my references to contemporary philosophers who discuss scepticism are mostly critical. This must not be taken to imply a general disagreement with them, let alone a negative assessment of their contributions. It is simply that discursive economy requires that I concentrate on those points on which I disagree, or agree only with qualifications. I should like to say that I find many contemporary discussions admirably clear and pertinent, perhaps especially those that I find reason to dispute on certain points.

I am grateful to the Norwegian Research Council for Science and the Humanities for a grant making it possible to carry through the historical research needed in this project, and to Mr. Alastair Hannay for valuable assistance in revising the manuscript.

Which World Is the Real One?

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Which World Is the Real One?

Inquiry into Comprehensive Systems,
Cultures, and Philosophies

Translated from the Norwegian by Ingemund Gullvåg

Revised and Edited by Harold Glasser
in Cooperation with the Author
and with Assistance from Alan Drengson

VOLUME III

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in Norwegian as *Hvilken Verden er den Virkelige?* by
Universitetsforlaget, Oslo, 1962, 1969 (hardcover edition), and 1982 (revised edition).

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>Series Editor's Introduction</i>	<i>ix</i>
<i>Author's Introduction to the Series</i>	<i>lv</i>
<i>Author's Preface to This Edition</i>	<i>lxi</i>
Introduction	i
I. Descriptions of Maximally Comprehensive Perspectives	11
Context and Overview: Some Questions	11
Formulation of Systems	20
System Concepts	20
Jaspers's Typology of World Pictures	25
The Goal Is to Exhibit the Difficulty and the Possibilities of Constructing Systems	36
The Function of Philosophical Debate	37
Rules for Extremely Simplified System Presentations	40
Simplification Can Generate Misunderstandings: Stepwise Construction of More Adequate Representations	41
Synoptic Philosophical Systems	44
Statement Sets That Satisfy Minimal Requirements for a System	44
Full Explicitness Is Required of Synoptic Systems	47
Three Examples of Synoptic Total Systems	49
Simple Comparisons: Conflicting Systems and Criteria of Totality	52
Standpoint Combinations: Extrapolation	57
Introduction to Systems and System Comparison	61
II. Comparison of Different Total Views	71
Common Sense, Ordinary Language, and <i>Lebenswelt</i>	71
Comparison and Evaluation on the Basis of Adequate Presentation	74

CONTENTS

Comparison with Respect to Truth-Value	79
Limits of Precision and Depth in Comparison	80
III. Metaphysics as Exposure of Presuppositions	83
Collingwood's Concept of Presuppositions	83
Not All Sets of Presuppositions Are Equally Acceptable	85
Two Concepts of Presuppositions: One in Cognitive Daylight and One in the Twilight Area	86
Principles Within a System and Presuppositions of a System	88
Collingwood's Metaphysics Presupposes a Supersystem	90
IV. Can There Be, Ultimately, Only One Valid Total System?	93
Are Total Systems Identical After All?	93
"The Common World": Postulate or Reality?	98
V. Cultures Construed as All-Embracing Systems	105
"Philosophical Systems" as Designations for an Articulated View of Reality as a Whole	105
Cultures as Information Economies	106
Cultures as Total Forms of Life and World Images	108
Structure, Experienced Content, and Correct Conduct	110
"Culture," 'Culture', and Culture	113
Integration Level and Consistency	116
Message and Knowledge	118
Cultural Knowledge in Relation to Status	121
Description of Foreign Cultures and Untranslatability	122
The Depth of Cultural Differences	125
The Absolutization of One's Own World Picture	134
What Kinds of Cultures Can Develop a Cultural Anthropology and How Different Can These Anthropologies Be?	141
VI. Some Conclusions	143
<i>Notes</i>	151
<i>References</i>	155
<i>Index</i>	161

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of

what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philosophical palette, not the “world” of his own consciousness as has become

the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our experience of the world is made up of gestalts. "[This] is the world we experience. Nothing is more real."⁴ People create abstract structures to reflect

SERIES EDITOR'S INTRODUCTION

on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess's parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess's "ontological realism" as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of "reality is one" plays a central role in the mature Naess's approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality's concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. "As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence."⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess's perspective, such accounts by themselves are merely a sign of cultural poverty. "God" could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess's gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as "the social construction of nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular

to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility

SERIES EDITOR'S INTRODUCTION

as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothernia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his

rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative systems can be seen as very "useful fictions," which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others

SERIES EDITOR'S INTRODUCTION

as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess's hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess's view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems' requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a

troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. "We have all read it. We *still* cheat in argumentation, but now with feelings of guilt."¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as "truth," "democracy," and "private enterprise." . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy

SERIES EDITOR'S INTRODUCTION

and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of

print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a "great idea" without Doug's generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of envi-

SERIES EDITOR'S INTRODUCTION

ronment should not, in Naess's view, play a pivotal role in shaping a budding philosopher's development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess's philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess's principal writings. As such, the *Selected Works* is the definitive repository of Naess's oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess's philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded,
and should follow his questions wherever they lead.

Arne Naess, "Norway"

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep

rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small moun-

SERIES EDITOR'S INTRODUCTION

tain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potently influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way" — *sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his *bon mot*, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek

broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The

turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that

change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess's 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers' intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as “*Truth as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's “Common Sense and Truth” (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Us-

SERIES EDITOR'S INTRODUCTION

tao set. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created “institutes” of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein’s main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo’s Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi’s catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi’s idea of trying to meet one’s opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war,

Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO's requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy's* richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess's “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess's empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess's frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

SERIES EDITOR'S INTRODUCTION

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO's plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess's research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on

scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is

SERIES EDITOR'S INTRODUCTION

Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation*

and Preciseness, to argue that it is an illusion to assert that combined scientific and philosophical or “purely” philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V),

SERIES EDITOR'S INTRODUCTION

was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhi's Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), "Seek complete self-realization" and "Seek truth," and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of "Self-realization!" as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by

Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions

SERIES EDITOR'S INTRODUCTION

taken earlier. Volume VIII includes sections on "Empirical Semantics and 'Truth,'" "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion,

and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work enter-

SERIES EDITOR'S INTRODUCTION

ing into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach’s proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans’ special capacities for reason and moral consciousness come special responsibilities,

particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and

SERIES EDITOR'S INTRODUCTION

interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three

key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy)

SERIES EDITOR'S INTRODUCTION

make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this ap-

proach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manu-

SERIES EDITOR'S INTRODUCTION

scripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and

SERIES EDITOR'S INTRODUCTION

Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also

SERIES EDITOR'S INTRODUCTION

performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-

SERIES EDITOR'S INTRODUCTION

Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible “work fairies” that were constantly pulling me back to my office don’t actually exist. I can’t wait.

Most of all, thanks to Arne Naess for placing his trust in me—it’s been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora’s box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne’s writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder’s “Axe Handles.” The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser

2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The

SERIES EDITOR'S INTRODUCTION

first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.

SERIES EDITOR'S INTRODUCTION

6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary

SERIES EDITOR'S INTRODUCTION

philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as

SERIES EDITOR'S INTRODUCTION

being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.

24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhi's Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecol-

SERIES EDITOR'S INTRODUCTION

ogy approach to ecophilosophy," the "deep ecology movement," and Naess's "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was "A philosopher." In fact, I had already conceived of myself as one. I viewed the

AUTHOR'S INTRODUCTION TO THE SERIES

writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that “What do I mean?” is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these “ordinary” people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally

AUTHOR'S INTRODUCTION TO THE SERIES

necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclina-

AUTHOR'S INTRODUCTION TO THE SERIES

tion very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it

AUTHOR'S INTRODUCTION TO THE SERIES

natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity,

AUTHOR'S INTRODUCTION TO THE SERIES

attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

An urgent issue today is whether economic globalization with a strong world market will make deep cultural differences impossible. As of now, there are still cultures that significantly differ from one another, with diverse views about nature and the world. At least to some degree, these differences can be articulated. We then get systems that are comparable in a rough and superficial way. Comparisons presuppose some common fundamental but very general ideas and procedures.

There are many worldviews, but is there only one *real* world? This question is taken up in this SWAN III volume. Twenty-five years of gradually less creative thinking have not changed my opinion in these matters. However, recent developments in philosophy have accentuated the problems in unpredictable ways. There is doubt among some anthropologists about the very concept of culture and especially about deep differences. Furthermore, doubt exists about concepts of foundations, which also touches science. "Science without foundation!" (Feyerabend). Is this merely an overreaction to extreme dogmatism—for example, the arrogant announcement that one has found the only conceivable set of ultimate premises that are absolutely valid? Such arrogance is rare, and markedly different from the single exposition of one's ultimate premises with an implicit claim that they are valid. I expect that existential philosophy of life and cosmos will flourish in the twenty-first century. No worldview will survive as THE real one.

Karl Jaspers's (1919) book *The Psychology of World Views* surveys and classifies personal worldviews. It is unique for its comprehensive and philosophical sophistication. It is sad how little influence it has had on recent philosophy-of-life reflections. Classification along his Dimension No. 2 has three subclasses. In rough English translations of the German text,

AUTHOR'S PREFACE TO THIS EDITION

they are: nature-mechanical worldviews, nature-historical worldviews, and nature-mythical worldviews.

It is astounding how much the richness of these worldviews has been underestimated and also how resilient they are to criticism. For example, materialistic systems are regularly said to be unable in principle to include theology and a supreme God. Yet, such systems were propagated in ancient Greece. For the atomists, God consisted of very smooth atoms communicating with us by means of extremely delicate waves emanating from those atoms. The crude waves of human communication, as well as the waves from sheer noise, usually make the waves from God inaudible. Therefore, meditation and listening in deep silence are recommended by proponents of these worldviews.

In short, and schematically, the natural, rich diversity of worldviews goes unrecognized because of mutual distrust: If a philosopher A offers a set of basic premises P_A , a second philosopher B says that from P_A something follows that everybody considers unacceptable. However, B would say that this something does *not* follow from P_B , and would add that from P_B such and such follows, which is clearly acceptable. There is a reluctance to give other creative philosophers “plenty of rope,” an expression I borrow from William James but one that is also well known to mountaineers. There is a tendency to choose interpretations of the texts of others that place their philosophy in a bad light, rather than ones favoring friendly cooperation in the unending pursuit of truth.

This book (SWAN III) makes use of my empirical semantics techniques, which offer sets of basic premises expressed in vague, ambiguous sentences as points of departure, formulations that are essential at the initial stages of an inquiry. The aim is to open the mind for encounters—never complete within a world of irreducibly different worldviews. In the second edition of this book, I invited readers to combine philosophical inquiry with cultural anthropology. The aim is to help prevent the reduction of the rich cultural and subcultural diversity that is essential for the further development of humanity. The long-term radical development of *Homo sapiens* may be cultural rather than biological. This requires protection of cultural mutations against the domination of a single family of similar industrial or green societies.

Strong economic forces are pushing for a world market that allows the free flow of capital, goods, services, and labor. It is difficult to see how

AUTHOR'S PREFACE TO THIS EDITION

deeply different cultures, some of which may be economically weak and vulnerable, can survive this onslaught. Provocative subcultures will survive, but in subcultures the continuity through generations is endangered. There is, for example, the need for proper school systems adapted to specific subcultures.

The philosophical systems of Aquinas, Spinoza, and Hegel are, in limited ways, meant to cover everything. In Indian and Chinese philosophical traditions, analogous systems have been created. In the [twentieth] century, linguistic philosophy has prevailed, especially in English-speaking countries, but grand systematizations may well see the light again. The two main arguments against the future value of *total views* are weak. The first, that they are too dogmatic, seems to be caused by the belief that the more general the view, the more likely it is that it will not be changed. However, Spinoza changed his views all through his life, and the same holds, as far as we can tell, for others. The second argument says that critical thinkers, such as Kant, have definitively shown the impossibility of reaching the goal of comprehensive metaphysical systems. However, such "proofs" are only hypothetical and have highly controversial premises.

In this book I accept the cognitive and practical value of systems but hold that the more like a total view they get, the less comparable they are, and the smaller are the possibilities for falsifying or undermining their fundamental tenets through argumentation. The change from acceptance to rejection must contain cognitive steps. In the terminology of some post-modernists, systems need "deconstruction." Others point out that all deconstructions, and their premises, may be deconstructed. The latter seems obvious to me. Worldviews of the most comprehensive kind have a great future as important cultural assets.

How can we live without taking seriously our feeling of what it means and entails to be a human being? How can we ignore the seemingly deep differences between people both in how they actually rank values and in how they act? We may ignore our more or less spontaneous, vast generalizations about life, and deeply different life conditions in different countries, or even in our own environment. We may consciously repress our vast generalizations, talking about a better life here rather than there, about the worst kind of life and the best. If asked, we may even deny that we have any

AUTHOR'S PREFACE TO THIS EDITION

view about life and the world. Some may laugh at the arrogance of people who profess a life- and worldview (*Lebens-und Weltanschauung*). These almost untranslatable terms were created in a country that has excelled in visionary generalizations, but where now the professional philosophers mostly reject the value and even the meaning of contributing to systematizations of life- and worldviews as all-embracing views.

I find untenable the prevalent rejection of life- and worldviews on the scale of Aquinas and Spinoza in the West, and of some great Chinese philosophers in the East. Since the 1960s I have consistently talked and written about a renaissance of great systems, that is, verbalizations of how one feels and thinks about existence, life, and the world in general. After all, some children by the age of four ask questions of a sublime and general character. In my opinion, no one has shown, through logic, philosophy of language, or any other kinds of arguments, that such grand systematic efforts are meaningless and fruitless. Should we leave these great tasks to the four-year-olds? We should all be able to have such fun!

Curiously enough, some critics see it as an imperfection that there is no consensus in questions of *Lebens-und Weltanschauung*. As long as there are deeply different cultures, and deeply different subcultures, we have reason to hope that the general outlook on life and the world will offer a great richness of fruitful differences, on par with the vast potentialities of human and natural creativity. Our spontaneous experiences and individual and cultural differences are a source of diversity that reveals the complex and deep richness of the *real* world.

Arne Naess

2004

Introduction

There is today a strange belief that science will slowly but surely solve all questions that have the possibility of a solution. With a scientific world-view as our framework, we will gradually elucidate human ends and activity, at least in all theoretically essential and practically important features. Because it is fruitless to try to anticipate the results of science, it is often argued — although unjustifiably — that it would be similarly fruitless to try to create more comprehensive syntheses than those permitted by scientific research. Such efforts may have their human uses, but they are not likely to be of any use in furthering science.

It is often said that extrapolation is unscientific and reveals a want of mental discipline. A wait-and-see attitude is more proper. Future generations will acquire a general view that we are not yet able to discern. Until then, the scientific attitude, the only intellectually honest one, dictates silence.

What happens, however, if our assumption that science will be able to generate a comprehensive world picture is an illusion (based on false conceptions about science)? What if we will have waited in vain? What if it is a delusion to believe that such a picture can emerge as a conclusion after innumerable single investigations?

Doubt with regard to the assumption that the more we perform scientific research the closer we get to a total view of the world, is not new. This doubt, however, is supported in very different ways. One standpoint argues that what purports to be a scientific world picture is an extrapolation in, scientifically speaking, unknown or insufficiently clarified dimensions. This criticism is based on a premise regarding the infinite multiplicity of types of phenomena in the world. If growing scientific knowledge is compared to the enlarged illuminated area that results from increasing the luminosity of our lamps, then the premise suggests that an ever larger area of

INTRODUCTION

darkness is also exposed. As more scientific problems are “solved,” so grows our capacity to formulate new unsolved problems.

A second standpoint stresses that science, in its basic features, is predetermined by its methods, axioms, postulates, and rules. These basic features cannot be the product of scientific research; they are presuppositions, not results, of research. The corollary is that the results of science cannot be integrated into any specific scientific world picture, but they may, perhaps, be integrated into philosophical world pictures, insofar as scientific presuppositions are subjects for philosophical research.

We are not on “the long road of approximation” (Kierkegaard) but in a historical process that causes the fragments to vary in character, to be perceived in new ways within a totality that itself varies and is not at all scientifically justified or justifiable in itself. Changes in methods, axioms, postulates, and rules are frequently, or perhaps always, at least in part motivated by results of research, but they cannot be said to be scientifically *justified*. Furthermore, the basis for making such modifications seldom seems to be self-evident, even to active researchers. Even if this were the case, we would still have the problem of *explaining* changes that were viewed as self-evident by individual scientists.

Let us return to the question of the possibility of a synthesis that is either a combination of the scientific and philosophical or is “purely” philosophical. In relation to this problem, as with others, one must distinguish between scepticism (Zeteticism, Pyrrhonism) and negativism (“Academic scepticism” in Greek terminology). The negativist denies human beings the *possibility* of working out all-embracing syntheses that can stand up to critical scrutiny. The sceptic—more precisely the Pyrrhonic zetetic—*seeks* (*zeteo*) to solve the questions that must be solved if the task is not to be declared impossible. The seeker thinks that what has been achieved so far does not measure up as an expression of plain, verified truth. There is no compelling reason to accept some relevant conclusions as more true or probable than others. A combination of two attitudes is suggested then: a seeking, sceptical attitude toward all total views, and a positive attitude toward wonder, not only as a point of departure, but also as the endpoint of philosophizing. (Beyond what I do understand, there seems, fortunately, to be much that I do not understand and shall never understand of philosophy and human cultures.)

INTRODUCTION

What follows here is motivated by this kind of seeking, sceptical attitude toward what already exists in the way of syntheses. The investigations in this book are sustained by delight in the multiplicity of ideas for syntheses that are already available to us in the twentieth century. It is a pleasure to contemplate and, to a very modest degree, to reexperience generously worked out, widely differing philosophies, basic attitudes, and views of the world and man. This is the pleasure of a wanderer, or rather a vagabond. The vagabond, in this sense, does not constantly seek to compile and integrate experiences.

Following these rough guidelines, we will treat my preceding sentence, which suggested that the results of science cannot be integrated into any single world picture, as a working hypothesis, not as a thesis I claim to be true. This hypothesis is based on historical and other studies that, besides being fragmentary, rest on methods and postulates that are not self-evident and fixed but admit to variations. It would be dishonest, however, to pretend that while writing this “thesis” and elaborating its consequences I do not have *trust* in it or an implicit confidence in its truth. The comfort that the dogmatist finds in conviction and hope, the sceptic finds in trust and wonder.

There is a belief that it is possible to create compendia of the history of philosophy that would clarify the exact interrelationships between individual philosophies with regard to their specific contents. At this point I see no possibility for such a survey and feel content to stand before something that unfathomable, something that no one can classify adequately.

Faced with someone who sees a want of engagement in scepticism, I would have to draw his attention to the fact that adopting a sceptical attitude makes it easier to gain insight into more than one view of life. Engagement without insight into the unfamiliar occurs on a false basis. If one is all the time certain in one’s heart where, or in what direction, Truth is to be found, insight into the unfamiliar becomes impossible. If one takes a certain presupposition as one’s point of departure, one cannot gain an intimate understanding of something that has an opposite presupposition. To do so, one must uncover one’s own presupposition, be willing to abandon it, identify oneself with the opposite presupposition, and see “everything” from this other point of view while at the same time maintaining a connection with the old presupposition. This involves at least a temporary relativization or suspension of

INTRODUCTION

both presuppositions. As long as one is convinced that one of them is more probable or true than the other, such a relativization is not possible. One cannot, as in the specific sciences, say, "If one presupposition is accepted, then so and so follows; if the other one is accepted, however, then such and such follows." Philosophies are too profound for such calculations; one has no immutable reference point from which to launch the if-then sentence.

Some may say that this delight in the multiplicity of alternatives must have some limits. How can one, for example, take pleasure in fascism, Nazism, Stalinism, or other extreme views of the world and man? The problem, however, is only ostensible: At the beginning of the twentieth century, attempts were indeed made to lay a philosophical foundation for fascism, but no great philosophical movement addressed such issues. No outline of a fascist philosophical system exists that is worth mentioning or that can be subjected to systematic analysis.

Scepticism, as a method of seeking, presupposes that one at least has ideas of what one is seeking. If one has the pretensions of a researcher, this implies that at the very least the ideas are sufficiently conceptualized to provide goal-standards (at least hypothetical ones) for what one seeks. A kind of standard of truth and genuineness must be retained, even if more precise formulations are held in suspense. In this sense, scepticism has at least one limit, but it is not a fixed limit. It is itself subject to wonder and search when we succeed in bringing it to awareness.

It is commonly believed that system construction must be accompanied by a blind faith in the system's truth and a strong belief in the falsity of other systems. The system creators whose ways of working are known to us, however, were constantly revising their standpoints, and one can trace their movement through many outlines and attempts. What they were sure of was a kind of intuitive, inarticulatable insight that their systems sought to express adequately. In relation to the articulated parts, these philosophers were regularly nondogmatic. Nevertheless, unfortunately, the locution *system* was and remains associated with *dogmatism*.

In what follows we shall distinguish sharply between a proposition's *degree of generality* and the *claim of certainty* with which it is asserted. One can pretend that a very specific statement (for example, about the blue anemone) is certain, and that an immensely general statement is highly uncertain (for example, about all the plants in the world). It is unreasonable to

attribute far-reaching pretensions of certainty to a philosopher simply by virtue of his expressing himself in very general terms and claiming, for example, that some of his statements are a priori. The a priori character does not relate to pretensions of certainty, but to relevant ways of verification. The great apriorist Nicolai Hartmann is particularly clear on this point.

Nevertheless, with regard to the intellectual legitimation of attempts to formulate a system, it is decisively important to consider one's standpoint on the question of whether implicit assumptions incorporating system character can be avoided at all. Perhaps the antisystematist is merely a person who does not want to, or dare to, bring his own attitudes to awareness and subject them to systematic articulation. Such an attitude cannot count on sympathy in philosophical debate.

Philosophers with deep respect or veneration for the sciences have noted how many systematizers have trudged carelessly or uncritically when considering a scientific topic (for example, Hegel in relation to Newton). These philosophers have also noted that some systematizers, out of excessive respect, exalted scientific hypotheses to all-embracing theories (for example, Spencer on Darwin). Owing to such unfortunate phenomena, there is a lamentable tendency to reject the study of systems.

The word *synthesis* is less central philosophically than *system*, but it generates more associations in the direction of this book's thrust. According to these associations, a synthesis does not have to mean that the various constituents are tightly knit and that the whole is closed. It is enough for the parts to be seen together; it is adequate that these parts or aspects of man, the universe, values and facts, or poetry and science are instructively related to each other. Inadequate synthesis would then be a matter of deficiencies if one asked the critical questions "How does this philosopher make room for . . . ?" "What is the standpoint of this philosopher to . . . ?"

One weakness of the term *synthesis* is that it deprives us of thinking of systems as originating in ways other than by bringing together things that were not united before. If one way of viewing the world and oneself is central for the system maker, the system may be said to be created by analysis of the manifestations of this way within various areas of cognition-logic, methodology, epistemology, psychology, and so on. Alternatively, the system may be created through differentiation of an unstructured whole, just as a newborn gradually learns to respond to different phenomena.

INTRODUCTION

Let us, however, return to the question of whether we can acquire an adequate overview of systems. It may be the ambitious dream of a historian of ideas to show how each philosopher's thoughts can be explained in terms of influences from other philosophers, from the milieu, from his time, and from everything else except the philosopher himself. But is a philosopher a kind of empty barrel?

Great philosophies are created by highly distinct personalities, and even the most abstract parts of their philosophical systems are expressions of living human beings and ways of seeing, feeling, and thinking. It would be a miracle if we could reexperience the world through the eyes of Plato and then Aristotle, Thomas Aquinas, Descartes, and Spinoza. As one concentrates on a particular philosopher, it simply becomes more difficult to bring out the differences between his view and others from any standpoint other than his own. Indeed, the difference seems to be that the others are wrong or do not see the whole truth. Plato did not see the world as Democritus saw it. Aristotle seemed unable to familiarize himself with the ways the pre-Socratics saw it. How could *we* possibly acquire an overview and see through the whole series? Do we have appreciably better qualifications, greater intellectual power, and more empathy than Plato and Aristotle?

We cannot expect to understand a system's sentences—even the most seemingly colorless and neutral ones—exactly as their author did. We can perhaps, to some extent, approach an authentic understanding and thereby look into worlds with essentially different structure, emotive atmosphere, and intellectual appeal from the one we habitually frequent—if, indeed, we frequent any definite world at all.

The road to an approximately authentic understanding presupposes, I think, that one turns away, *at least temporarily*, from all so-called surveys of philosophy and its history. By reading such works, one obtains a technique of acquisition and orientation that is limited to the surfaces of those systems. In learning to gloss over these, however, one remains cut off from a nuanced and deep understanding.

In Scandinavia, especially in Denmark and Norway, for more than half a century students learned a kind of survey of the history of philosophy that manifested itself, for example, in the selection of philosophers considered worth mentioning, in choosing how many “pages” were devoted to each philosopher, and in characterizing the relevant “-ism” terms. These terms are regularly taken as an indication of which characteristics are espe-

cially important among the innumerable possible ones. If it were possible to communicate in a few words and in a short time the most essential aspects of a philosophy, then even Spinoza would be blamed for having used several hundred pages to communicate what was most essential for him. In surveys of philosophy one might be able to include the most important *words* and *sentences*, but not the most important *concepts* and *views*.

In my own history of philosophy (Naess 1980), I have not wandered far from the beaten path except for a wide-reaching elimination of the vulgarizing “-isms.” The main reason for my conservatism is that I have not been able to find convincing arguments for choosing between the range of new alternatives.

In addition, it may seem difficult to oppose and renounce the grand overview because so many authors seem to master our cultural history so sovereignly. They are able to place and classify philosophers and schools of thought so that everything seems surprisingly intelligible. What is needed, however, is more abhorrence and less admiration for such things. Only when one can, without embarrassment, declare to himself and others that he has no adequate overview whatsoever, and that with few exceptions he is perplexed about what the various philosophies even involve, is there room for pleasure in the quite small approaches to deeper understanding. Grand surveys of philosophy and the history of ideas may then be tolerated simply as learned authors’ reports of whims and thoughts that they have gleaned while reading old texts and contemplating old works of art.

Indeed, lecture series or compendia of philosophy covering long periods of time are banished in some seats of learning. In others, they still have an important place. A researcher who accepts a position as a philosophy teacher at such an institution must face up to the fact that he may be required to lecture, within a limited number of hours, on a series of gigantic philosophical systems created by thinkers whose intelligence and perspicacity he is at the same time expected to bow before in awe. Furthermore, he must extract the “essentials” of the specifically philosophical contributions of the philosophies, indicate how one philosophy influences the other, and, more generally, how each fits—or does not fit—into all-encompassing, widely differing cultural epochs. For some of us who have participated in this, there is not only something unworthy but also something fascinating in such an arrangement. The manufacturing of philosophy accounts in pill form has perhaps sprung from excellent motives—the cultivation of

INTRODUCTION

our “cultural heritage,” respect and veneration for profundity and genius in generations other than our own, and even recognition that the road to truth cannot be established straightaway without inspecting different roads—but cruelty and noble motives often go together.

A survey is no hindrance if it is phrased so as to make the reader understand that he is moving on the surface and will become familiar with key words and important formulations, but not much more. Unfortunately, such representations are rare, and few readers appreciate such limitations. Most readers want a comprehensive survey of what is most essential that covers the most heterogeneous philosophies.

What, then, is so reprehensible about such a comprehensive “overview”? It is the fact that it reduces something immeasurable to something perspicuous, easy to grasp, and uniform. It favors pigeonholing, ordering, and control at the expense of imagination and empathy. What is unreasonable about the idea of an adequate overview covering all of philosophy is the implicit conception that heterogeneous, deep, and consequential thoughts can be demarcated and grasped in one and the same mind or in one and the same conceptual framework and that they can then be presented to any moderately gifted individual who makes a slight effort to grasp them. It is simply assumed that individuals can “approach” a deeper and more exact understanding of all philosophies without generating discontinuities, crises, blind leaps, or new difficulties. Kant, however, had great difficulty understanding Hume, and Berkeley found Spinoza rather unintelligible. Kant and Berkeley required, as do many of us today, a certain depth of understanding; they were not satisfied with a mere surface-level grasp. Therefore, they failed to create grand, total overviews.

Travel agencies, for example, often give advice about how to see Europe in one, two, or three weeks. One can actually see all the most famous places and works of art; nevertheless, we would say that this is a rather superficial introduction. It is hardly different in the worlds of thought. Philosophies are not suitable for sightseeing in the course of a few weeks. If one attempts to introduce someone into these worlds in this manner, one commits an injustice to the thinkers as well as to those who seek an understanding of them.

A philosophical system covers “everything,” and therefore the ego itself and the relationship between the individual and tradition. To understand two different systems, then, one must be able to perceive oneself and

INTRODUCTION

the world in two different ways. This requires significant training and much time and effort. It involves creating discontinuities in one's own person; one becomes another, and then yet another, and then returns "to oneself." It is doubtful that one returns to "oneself" as one was originally. This alone makes the possibility of obtaining an overview of *both* systems dubious. Who is the person who has the overview?

After these strong words against the pretensions of adequately surveying philosophical systems, some admissions are in order, particularly pedagogical ones. In the first encounter with the history of philosophy, it may be useful to sample widely differing philosophical terminologies in order to become stimulated to find something from which one can profit personally. Such superficial encounters can often be sufficient to give one an inkling of what kind of philosophy or which philosophers one will be able to study with great profit. Attempts to suggest main thoughts and tendencies in different philosophies in quite simple words and without any pretension of adequacy are an important pedagogical task. Understanding comes gradually, and at every stage there are specific ways of formulating one and the same topic.

The Pluralist and Possibilist Aspect of the Scientific Enterprise

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness
A Contribution to the Theory of Communication

II

Scepticism
Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?
Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise
Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict
Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence
The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument
Elements of Applied Semantics

VIII

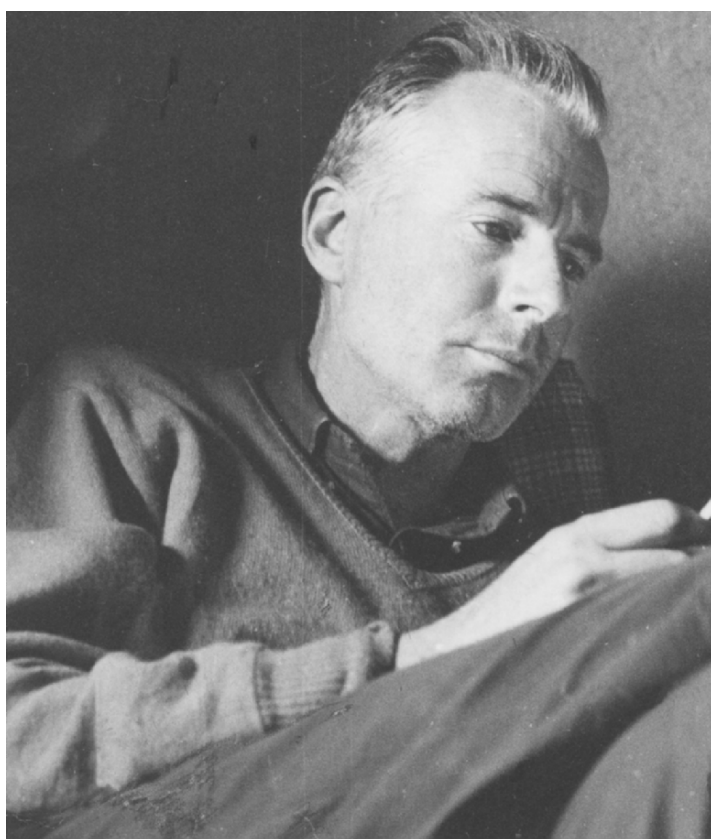
Common Sense, Knowledge, and Truth
Open Inquiry in a Pluralistic World
Selected Papers

IX

Reason, Democracy, and Science
Understanding Among Conflicting Worldviews
Selected Papers

X

Deep Ecology of Wisdom
Explorations in Unities of Nature and Cultures
Selected Papers



The Selected Works of Arne Naess

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

Revised and Edited by Harold Glasser
in Cooperation with the Author
and with Assistance from Alan Drengson

VOLUME IV

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in English by Universitetsforlaget, Oslo, and George Allen and
Unwin Ltd., London, 1972.

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>List of Figures and Tables</i>	<i>ix</i>
<i>Series Editor's Introduction</i>	<i>xi</i>
<i>Author's Introduction to the Series</i>	<i>lvii</i>
<i>Author's Preface to This Edition</i>	<i>lxiii</i>
<i>Author's Foreword to the First Edition</i>	<i>lxv</i>
I. The Impact of the New Historiography of Science	1
The Neat Image of Science	1
The New, Gaudy Image of Science	2
Impact of the New Image on Philosophy:	
Typology of Total Views	3
Claims of Refutations and the Historian:	
Echolalia or Critical Attitude?	4
Refutation Seen in Historical Perspective	9
II. Experimental Setup, Rank Dimensions, and Pluralism	13
Decisive Relevance of Experimental Setup to Testability,	
Field of Test, and Cognitive Content of a Theory	13
Narrow Contextual Testing of Hypotheses	15
A Broad Thesis on Contextuality of Testing	18
Plurality of Functions and Rank Dimensions of a Theory	26
Pragmatic-Heuristic Component of Conceptions of Refutation	38
Test of Isolated Hypotheses Practicable	41
Incomparability Due to Differences in Conceptual Framework	42
Proliferation of Concepts of Refutation: Pluralism	46
III. Theory and Theoretical Idea	51
Theories: Variety of Notions	51
Theories: Names, Expositions, Versions, and Modifications	58
Value and Function of Indefiniteness and Unsurveyability	65

CONTENTS

IV. The Unimpressiveness of Impossibilities	71
Possibility of the Impossible: “Anything Is Possible”	71
So-Called Completeness and Maturity as Signs of Abandonment	84
The Inexhaustiveness of Ideas: A Semantical Model	88
Possibilism and Permissiveness: Crazy Ideas and Connectability	89
Working with Many Theories, in Many Ways: Theory	
Proliferation and Diversity of Praxis	92
Pluralism of Methodologies: Incomparability	95
The Heuristic and Systematic Role of General Systems:	
Metaphysics, Maturity, and Stagnation	98
Intrinsic Value of Research and Science	106
V. The New Historiography Applied to Itself: General Possibilism	109
The Discontinuity of Traditions and the Resulting	
Nonaccumulative Character of Scientific Knowledge	109
The Idea of Nonaccumulative Historiography Applied to Itself	110
Historiological Pluralism	119
General Possibilism	125
<i>Appendix: Historical Note on Possibilistic Pluralism</i>	<i>135</i>
<i>Notes</i>	<i>139</i>
<i>References</i>	<i>145</i>
<i>Index</i>	<i>153</i>

List of Figures and Table

Figures

1. The many-many relation between metatheories of observation and their corresponding observed phenomena for a single theory.	23
2. The many-many relation between metatheories of observation and their corresponding observed phenomena for two competing theories.	24
3. The many-many relation between multiple metatheories of observation and their corresponding observed phenomena for two competing theories.	24
4. Levels of discrimination and preciseness.	129

Table

Types of Theories Compared	31
----------------------------	----

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

{The pre-Socratics'} attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this commitment to expand philosophy's sphere of concern to life in general

SERIES EDITOR'S INTRODUCTION

and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of what

SERIES EDITOR'S INTRODUCTION

may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bioregionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philosophical palette, not the “world” of his own consciousness as has become

the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a world-view inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our experience of the world is made up of gestalts. "[This] is the world we experience. Nothing is more real."⁴ People create abstract structures to re-

SERIES EDITOR'S INTRODUCTION

flect on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess's parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess's "ontological realism" as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of "reality is one" plays a central role in the mature Naess's approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality's concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. "As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence."⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess's perspective, such accounts by themselves are merely a sign of cultural poverty. "God" could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess's gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as "the social construction of nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particu-

lar to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibil-

SERIES EDITOR'S INTRODUCTION

ity as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his

rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative systems can be seen as very "useful fictions," which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others

SERIES EDITOR'S INTRODUCTION

as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books

or articles and find the “definitive” Arne Naess. He is a troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. “We have all read it. We *still* cheat in argumentation, but now with feelings of guilt.”¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as “truth,” “democracy,” and “private enterprise.” . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own

SERIES EDITOR'S INTRODUCTION

line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is try-

ing, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a "great idea" without Doug's generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgen-*

stein, Heidegger, and Sartre (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of environment should not, in Naess's view, play a pivotal role in shaping a budding philosopher's development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess's philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess's principal writings. As such, the *Selected Works* is the definitive repository of Naess's oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess's philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded, and should follow his questions wherever they lead.

Arne Naess, "Norway"

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemndal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or

bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and

SERIES EDITOR'S INTRODUCTION

soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small mountain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potentially influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way" — *sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

SERIES EDITOR'S INTRODUCTION

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital

SERIES EDITOR'S INTRODUCTION

concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the

content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess's 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers' intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as “*Truth as Conceived by Those Who Are Not Professional Philosophers*” (1938). A summary of this work is presented in Naess's “Common Sense and Truth” (in SWAN

VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Ustaoset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created "institutes" of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for "re-education." The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi's catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax.

Naess was greatly impressed with Gandhi's idea of trying to meet one's opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war, Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO's requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy's* richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess's “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess's empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—

SERIES EDITOR'S INTRODUCTION

much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess's frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to "pursue non-essentials":²⁴

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO's plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess's research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into

thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a

SERIES EDITOR'S INTRODUCTION

plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects

of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation and Preciseness*, to argue that it is an illusion to assert that combined scientific and philosophical or "purely" philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of "fundamental theories" is immediately called into question. As the undemon-

SERIES EDITOR'S INTRODUCTION

strated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V), was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), "Seek complete self-realization" and "Seek truth," and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of "Self-realization!" as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to

make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is ". . . to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the

SERIES EDITOR'S INTRODUCTION

better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six “Gandhian” rules of effective discussion, which emphasize avoiding six forms of “irrelevance in discussion.”

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions taken earlier. Volume VIII includes sections on “Empirical Semantics and ‘Truth,’” “Zeteticism,” “Empiricism, Possibilism, and Pluralism,” and “Metaphysics, Morals, and Gestalt Ontology.” Volume IX includes sections on “Democracy, Ideology, and Rationality,” “Philosophy of Science,” “The Philosophy of Peace, Gandhian Ethics, and Communication,” “Spinoza,” and “Philosophical Development, Environment, and Education” (which includes an autobiographical article describing key influences in Naess’s philosophical evolution, “How My Philosophy Seemed to Develop” and an interview, “Deep Ecology and Education”). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess’s philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his “deep ecology” writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, “Nature ebbing out” (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess’s work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess’s lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical se-

mantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion, and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points

SERIES EDITOR'S INTRODUCTION

are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work entering into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a

broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach's proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans' special capacities for reason and moral consciousness come special responsibilities, particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an indi-

SERIES EDITOR'S INTRODUCTION

vidual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of

being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy) make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in

which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this approach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996).

SERIES EDITOR'S INTRODUCTION

After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manuscripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile.

SERIES EDITOR'S INTRODUCTION

Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of over-

SERIES EDITOR'S INTRODUCTION

seeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

SERIES EDITOR'S INTRODUCTION

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible "work fairies" that were constantly pulling me back to my office don't actually exist. I can't wait.

Most of all, thanks to Arne Naess for placing his trust in me—it's been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora's box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne's writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder's "Axe Handles." The last few lines read:

SERIES EDITOR'S INTRODUCTION

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess

SERIES EDITOR'S INTRODUCTION

and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess

SERIES EDITOR'S INTRODUCTION

and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.

3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.
6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter*

SERIES EDITOR'S INTRODUCTION

- 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.
17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).

SERIES EDITOR'S INTRODUCTION

20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.
24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhi's Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).

SERIES EDITOR'S INTRODUCTION

29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecology approach to ecophilosophy," the "deep ecology movement," and Naess's "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).
31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

AUTHOR'S INTRODUCTION TO THE SERIES

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was "A philosopher." In fact, I had already conceived of myself as one. I viewed the writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that "What do I mean?" is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these "ordinary" people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In

AUTHOR'S INTRODUCTION TO THE SERIES

spite of consistent proclamations that science neither would nor could take over all the problems discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard.

AUTHOR'S INTRODUCTION TO THE SERIES

Speaking with students who were writing their doctoral theses in philosophy, I understood that my knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclination very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

AUTHOR'S INTRODUCTION TO THE SERIES

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism*

AUTHOR'S INTRODUCTION TO THE SERIES

(SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity, attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

As soon as you start a scientific research project, a philosopher of science might interrupt you by saying, "Very interesting that you have implicitly made certain assumptions. . . ." You admit this, but defend yourself by saying that most of the assumptions can be tested, if deemed necessary. Naturally, the validity of the tests rests on further assumptions. The conclusion of an investigation may have the form "If the assumptions a_1 , a_2 , . . . a_n are all correct, *then* such and such." When you negate or change one or more *basic* assumptions, you will get different total views. The scientific enterprise, including the Western and the classic Chinese and Indian, is a part of a culture. So is the above sentence and so is this one. There are always "presuppositions" in such undertakings, as R. G. Collingwood noted.

Both the pluralism and possibilism advocated in this book (SWAN IV) are motivated by feelings of claustrophobia that arise in me when I read about what science is "supposed" to be. There is too little room for the function of the wild imagination. I agree with the statement "In the wild is the salvation of humanity." The wild has in many ways reemerged with the demise of the view that a rigid form of determinism was assumed and shown by science. What has become apparent is that anything can happen (possibilism), and that the world we know through experience is incredibly rich and can be described in inexhaustible ways. Our spontaneous experience is rich and diverse, as is attested by the many languages and cultures in the world. This is one reason I am a pluralist with respect to the scientific enterprise. Science as wondering and inquiring is open-ended in many ways, but science as an enterprise is a social institution with many restrictions. Studies of science and culture have led us to see that openness and creativity are basic features of natural systems and human life.

AUTHOR'S PREFACE TO THIS EDITION

The latest conceptual cage some of us have run into is that offered by Thomas S. Kuhn. It arises from the historiography of science in general. Sentences like “The history of science shows that . . .” can only express knowledge in the form of “If we assume such and such, we may validly say that the history of science *shows* such and such.” However, science as a complex enterprise is not a showcase. Moreover, as soon as you start to change any of the undemonstrated assumptions, new possibilities are seen, and then history looks different. You do not escape assumptions, but rather you live through a variation of them in a discontinuous way. You need not agree with me here. If you have time and energy, you can instruct me about some interesting assumptions I make in saying this. I might then afterward reveal some of your assumptions when you were talking about mine.

Arne Naess

2004

Author's Foreword to the First Edition

The motive for publishing the present study springs from numerous encounters through many years with people who feel coerced by “scientific results” to change their personal philosophy. They look on science as a vast machinery that produces correct views and opinions in a sort of vacuum—completely independent of its setting in a society or of the interests, motives, or purposes of those who attend to the machine, oil it, serve it, improve it, spoil it, or neglect it. There is, in fact, no such machine. More specifically, the scientific enterprise is *not* independent of the philosophic or general system-building enterprise. Only insofar as a person is autonomous and articulate enough to have value-priorities, action-priorities, ontological priorities, or views, do scientific results have a *rational* power of influencing—even drastically changing—attitudes, however basic. Only under such circumstances do the neat sentences expressing results of scientific research become sufficiently “juicy” in meaning to touch, in a rational manner, on personal situations. Otherwise, the influence is irrational—a kind of coercion, due to passivity, indifference, or simply crude misconceptions about the nature of scientific knowledge.

There is, in my view, no “scientific” worldview, no established scientific “knowledge” in senses current among those people I am talking about. Consequently, their efforts at personally creative world orientation should not be hampered by science. On the contrary, they should be able to make use of, and participate in, science—provided they “know who they are” to the extent of having at least provisionally articulated their basic priorities of valuation and action.

Because at a given time in a definite society only one or a small number of views on a certain topic are considered “respectable” scientifically, the coercion acts in the direction of conformity, spurious agreement, and

AUTHOR'S FOREWORD TO THE FIRST EDITION

other-directedness; in short, its effect is strongly impersonalizing and dehumanizing.

The sterility of the scientific enterprise in providing a worldview does not make it less interesting. On the contrary, many who turn their back on scientific activity do so through a misunderstanding and lose an invaluable opportunity for participating in a central human undertaking—indeed, one that in the long run may prove to be *the* collective enterprise of this remarkable species.

I have no great confidence in my ability to convince others of the tenability of the views put forth in this work. I feel I should stress, however, that only very special aspects of the total scientific enterprise are to be considered, namely its capacity for surprise, for unlimited novelty, and unlimited diversity of interpretation. Science has many other aspects, some of which may give the impression of inescapable, lawful development, necessity, and inevitability. It is the aim of history of science, according to one of the many legitimate conceptions of historical research, to make us “understand” that science *had* to develop exactly as it did, given the social and other forces operating at each moment. But it so happens that this monistic and totalitarian aspect is *not* the one I deal with in what follows.

With regard to the preparation of this book, I have many thanks to extend to the people who assisted me in the undertaking of this project. I am especially grateful to the Norwegian Research Council for Science and the Humanities for supporting my enterprise in its various phases since 1958, to Magisters Øyvind Baune and Nils Roll-Hansen for persistent discussion on how to make the central ideas clear, and to Dr. Alastair Hannay for invaluable assistance in making the manuscript readable to an English-speaking public.

Gandhi and Group Conflict

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

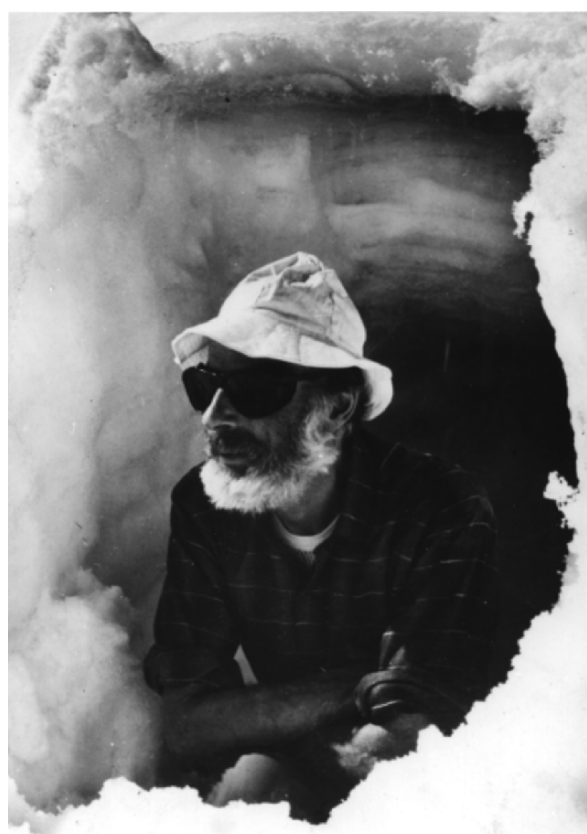
Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

Revised and Edited by Harold Glasser
in Cooperation with the Author
and with Assistance from Alan Drengson

VOLUME V

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)
ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in English by Universitetsforlaget, Oslo, 1974.

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved
© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>List of Figures</i>	<i>xi</i>
<i>Series Editor's Introduction</i>	<i>xiii</i>
<i>Author's Introduction to the Series</i>	<i>lix</i>
<i>Author's Preface to This Edition</i>	<i>lxv</i>
<i>Author's Foreword to the First Edition</i>	<i>lxvii</i>
I. Gandhi's Experiments	I
Gandhi: Merely a Man	I
It Works	5
Empirical Basis of Nonviolent Extremism	9
Moralism and Pragmatism	11
II. The Metaphysics of <i>Satyāgraha</i>	15
Truth	15
Absence of Theology: Pragmatic and Agnostic Leanings	15
Multiple Use of Language: To Inform, Convince, Preach, Agitate	17
Truth and God	18
Five Components of Gandhi's Use of the Term <i>Truth</i>	19
Fallibility, Pluralism, and Scepticism (Zeteticism)	21
Truth, God, and Self-Realization	27
The Trinity of Realizations	27
The Devotion of a <i>Karmayogin</i>	28
The Self of Egotism and the Universal Self	30
Humility, Egotism, and Self-Realization	30
The Universal Self	33
The Supreme Conceptual Bridge: From "Truth," "self," "Self," and "Egotism" over "Essential Unity of Humanity" to "Nonviolence"	35
Synopsis	37

CONTENTS

Nonviolence	38
<i>Himsā</i> and <i>Ahimsā</i> : Broad and Narrow Concepts	38
Gandhi on Nonviolence	43
Gandhi on Truth	44
A Conceptual Reconstruction	46
Graphic Presentation of Principles and Norms:	
Systematizations *E and *F	48
 III. Norms and Hypotheses of Gandhian Ethics and Strategy of Group Struggle	 53
Introductory Remarks	53
Aim of the Systematization	53
The Particular Norms and Hypotheses	57
First and Second Levels	57
Third-Level Hypotheses	66
Third-Level Norms	72
Fourth-Level Hypotheses	79
Fourth-Level Norms	80
Elaboration and Exemplification	85
Constructive Programs	85
Nonexploitation of Weakness	87
Coercion	89
Strict and Less Strict <i>Satyāgraha</i>	92
 IV. Nonviolence and the “New Violence”	 97
The Contemporary Reaction Against Nonviolence	97
Comparing the Recent Norms of Violence with Those of <i>Satyāgraha</i>	98
What to Learn from the Reaction Against Nonviolence	106
The Basic Requirement of Self-Respect: Fearlessness	108
Violence Preferable to Cowardice	110
Violence as a Means to Increase Self-Respect	114
<i>Satyāgraha</i> Is Not a Set of Techniques	116
The Use of Violence as a Sign of Impotency	119
Gandhi’s Notion of Nonviolence: Axiology or Deontology?	121
Constructive, Goal-Revealing Campaigns	123
Constructivity and Destructivity in Gandhi’s Salt <i>Satyāgraha</i>	124
Conclusion	128

CONTENTS

V. Comparison with Certain Other Philosophies of Conflict	131
Luther and Gandhi	131
Nietzsche and Gandhi	138
Tolstoy and Gandhi	141
Jaspers and Gandhi	144
 <i>Appendix I. Life of Gandbi: Chronology of Satyāgraha</i>	 153
<i>Appendix II. Norms and Hypotheses: A Survey</i>	157
<i>Appendix III. Key Expressions in Norms and Hypotheses</i>	163
<i>Notes</i>	165
<i>References</i>	171
<i>Index</i>	177

List of Figures

Figures

- | | |
|---|----|
| 1. Graphic presentation of the norms and hypotheses of Systematization * <i>E</i> . | 49 |
| 2. Graphic presentation of Gandhi's norms as depicted in Systematization * <i>F</i> . | 50 |

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of

what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philosophical palette, not the “world” of his own consciousness as has become

the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our experience of the world is made up of gestalts. "[This] is the world we experience. Nothing is more real."⁴ People create abstract structures to reflect

SERIES EDITOR'S INTRODUCTION

on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess's parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess's "ontological realism" as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of "reality is one" plays a central role in the mature Naess's approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality's concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. "As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence."⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess's perspective, such accounts by themselves are merely a sign of cultural poverty. "God" could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess's gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as "the social construction of nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular

to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility

SERIES EDITOR'S INTRODUCTION

as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his

rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative systems can be seen as very "useful fictions," which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others

SERIES EDITOR'S INTRODUCTION

as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a

troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. "We have all read it. We *still* cheat in argumentation, but now with feelings of guilt."¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as "truth," "democracy," and "private enterprise." . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy

SERIES EDITOR'S INTRODUCTION

and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of

print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a "great idea" without Doug's generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of envi-

SERIES EDITOR'S INTRODUCTION

ronment should not, in Naess's view, play a pivotal role in shaping a budding philosopher's development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess's philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess's principal writings. As such, the *Selected Works* is the definitive repository of Naess's oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess's philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded, and should follow his questions wherever they lead.

Arne Naess, "Norway"

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep

SERIES EDITOR'S INTRODUCTION

rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small moun-

SERIES EDITOR'S INTRODUCTION

tain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potently influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way"—*sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek

broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The

turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that

change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess’s 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers’ intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related these notions to philosophers’ theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess’s results were published as “*Truth as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess’s “Common Sense and Truth” (in SWAN VIII). Naess’s continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Us-

SERIES EDITOR'S INTRODUCTION

tao set. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created “institutes” of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein’s main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo’s Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi’s catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi’s idea of trying to meet one’s opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war,

Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO's requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy's* richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess's “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess's empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess's frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

SERIES EDITOR'S INTRODUCTION

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO's plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess's research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on

scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is

SERIES EDITOR'S INTRODUCTION

Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation*

and Preciseness, to argue that it is an illusion to assert that combined scientific and philosophical or “purely” philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V),

SERIES EDITOR'S INTRODUCTION

was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), "Seek complete self-realization" and "Seek truth," and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of "Self-realization!" as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokely Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by

Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions

SERIES EDITOR'S INTRODUCTION

taken earlier. Volume VIII includes sections on "Empirical Semantics and 'Truth,'" "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion,

and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work enter-

SERIES EDITOR'S INTRODUCTION

ing into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach’s proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans’ special capacities for reason and moral consciousness come special responsibilities,

particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and

SERIES EDITOR'S INTRODUCTION

interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three

key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy)

SERIES EDITOR'S INTRODUCTION

make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this ap-

proach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manu-

SERIES EDITOR'S INTRODUCTION

scripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and

SERIES EDITOR'S INTRODUCTION

Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also

SERIES EDITOR'S INTRODUCTION

performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-

SERIES EDITOR'S INTRODUCTION

Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible “work fairies” that were constantly pulling me back to my office don’t actually exist. I can’t wait.

Most of all, thanks to Arne Naess for placing his trust in me—it’s been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora’s box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne’s writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder’s “Axe Handles.” The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The

SERIES EDITOR'S INTRODUCTION

first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.

SERIES EDITOR'S INTRODUCTION

6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary

SERIES EDITOR'S INTRODUCTION

philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as

SERIES EDITOR'S INTRODUCTION

- being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.
24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
 25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
 26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Meneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
 27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhis Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
 28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
 29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
 30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecol-

SERIES EDITOR'S INTRODUCTION

ogy approach to ecophilosophy," the "deep ecology movement," and Naess's "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was "A philosopher." In fact, I had already conceived of myself as one. I viewed the

AUTHOR'S INTRODUCTION TO THE SERIES

writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that “What do I mean?” is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these “ordinary” people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally

AUTHOR'S INTRODUCTION TO THE SERIES

necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclina-

AUTHOR'S INTRODUCTION TO THE SERIES

tion very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it

AUTHOR'S INTRODUCTION TO THE SERIES

natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity,

AUTHOR'S INTRODUCTION TO THE SERIES

attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

SWAN V is my third book on Gandhi, and, as stated in the subtitle, it explores *satyāgraha* and its “theoretical background.” A volume on the practice of *satyāgraha*, the way of militant nonviolence, was to follow. It was to be written by my old collaborator on nonviolent action, Johan Galtung. However, my friend Johan had other, more pressing themes to write about, such as the Cultural Revolution in China. There was no such volume on nonviolence.

A central theme in Gandhi's philosophy is central to this book. It is perhaps most simply stated in these passages from Gandhi, where he expresses his feelings for the oneness and divine nature of all beings.

I know that you had naturally the art of looking upon trees and animals as friends. I wanted you to extend the idea so as not to feel the want of friends from outside. [There] should be a definite realization that personal friends and relations are no greater friends than strangers of the human family and bird, beast and plant. They are all one, and they are all an expression of God if we would but realize the fact. . . .

(*The Collected Works of Mahatma Gandhi*, vol. 51, p. 57)

There is nothing inanimate for Him. We are of the earth and earthy. . . . I feel nearer God by feeling Him through the earth. . . . [I] rejoice in establishing kinship with not only the lowliest of human beings, but also with the lowest forms of creation whose fate—reduction to dust—I have to share. . . .

(*Ibid.*, vol. 45, p. 80)

Thus, we are most intimately connected with every living creature in the world and with everything that exists; everything depends for its existence on everything else. . . . [Every] obstacle which we place between ourselves and the sky harms us physically, mentally and spiritually.

(*Ibid.*, vol. 49, p. 295; the above three passages are quoted in Power 1991: 100–102)

AUTHOR'S PREFACE TO THIS EDITION

There is another central theme in Gandhi's philosophy that needs mentioning: "Fearlessness is indispensable for the growth of the other noble qualities. How can one seek Truth, or cherish Love, without fearlessness?" (Power 1991: 109). "I believe that, where there is only a choice between cowardice and violence, I would advise violence" (ibid., p. 110). I try in a special chapter to interpret in this way the violence expressed in the 1970s by militant blacks against whites. As Gandhi might have said, Yes, there has been timidity among blacks facing arrogant and violent whites. In such cases, violence against whites may sometimes be the only way to overcome fear. Gandhi recognized that sometimes we have to act with determination and force to overcome fear and past anger so that we can move on to a nonviolent way of relating and acting.

The term *self-realization* as used at my Level 1 verbalization of a deep ecology total view is closely related to the term as used by Gandhi. In his doctoral thesis, *Gandhi and Deep Ecology: Experiencing the Non-human Environment*, done at the University of Salford, Shahed Ahmed Power documents in detail the remarkable relations between Gandhian and deep ecology thinking.¹ Only in the last years of his long life did Gandhi seem to admit with regret that sometimes human beings may be forced to kill or even exterminate "dangerous" animals.

Arne Naess

2004

Note

1. So far (2004) this thesis is unpublished, and if published it might be shortened and the relation to deep ecology neglected. The original dissertation can be obtained by writing to Dr. Shahed Ahmed Power at Environmental Resources Unit, University of Salford, Salford, England M5 4WT.

Author's Foreword to the First Edition

Since the 1950s and 1960s, Gandhi's teaching has acquired a new and unexpected significance. Technical and industrial development has put most decisions that touch the individual and his local environment into the hands of specialists. In addition, the division, or rather fragmentation, of labor has proceeded unhampered and has contributed to the unsurveyable character of these developments. Partly as a consequence, the traditional parliamentary procedures in Western democracies have degenerated to the extent that they neither furnish decisions that express "the will of the majority" (no such thing exists in the area of specialist knowledge) nor take sufficient care of vital minority interests. Reconsideration of philosophies of direct action has forced itself on the impatient and underprivileged.

Racial and cultural minorities have made use of violent means or, rather, have lowered restraints against the outbreak of violence. This anti-Gandhian development has, however, underlined the importance of Gandhi's teaching of self-respect — and the feeling of "being something" — as a necessary condition of nonviolence. Outbreaks of violence in ghettos and universities have been followed by despair: "the establishment" has at its command a superior capability to perpetrate violence. Chaos helps the more sinister forces on both sides to increase their power.

In the West, majorities still indulge in the righteous repression of minorities, forgetting that the traditional democratic procedures that were designed to protect minorities can work only imperfectly in technocracies. Gandhi himself reacted against majority rule and the utilitarian precept, "the greatest happiness for the greatest *number*." In his fight for minorities, his motto was "the greatest good for *everyone*," and the kind of fight he led based on direct, nonviolent action, is widely applicable to the problems of the underprivileged.

AUTHOR'S FOREWORD TO THE FIRST EDITION

The evils of great cities and suburban unlife have made Gandhi's fanatical antimetropolis attitude and his ideals of decentralization (the *panchayat* system) discussible. His tendency to support agriculture and decentralized industry in villages and small towns in order to stop the disastrous flight of peasants to the great cities is quite modern. Gandhi's utopia is one of the few that shows ecological balance, and today his rejection of the Western world's material abundance and waste is accepted by progressives of the ecology movement. A decade ago, Gandhi tended to be denounced as a reactionary dreamer by both Marxist and anti-Marxist economists. Now they are forced to take his conclusions seriously.

Gandhi did not want followers, and we cannot today submit to his leadership. However, we can, and I think must, consider his life and teaching when groping for solutions to our problems.

This book tries to concentrate on central topics of Gandhi's teaching. The religious and philosophical background has been given more space than usual. Our questions are: What has a completely secularized technocracy to offer? How can we replace the vast religious or philosophical sources of energy that have been available in all great societies? In searching for answers, it is important to find out to what extent the religious thought of Gandhi was independent of dogma and myths that today have no chance of being accepted as truths. In this respect, it is not only a question of where Gandhi stands in matters of dogma and myths, but of where the whole world of modern Buddhist and Hindu thinking stands. As will be made clear in what follows, the Gandhian approach is surprisingly free from dogma, and it is even able to accommodate the militant atheist among "believers in God." (He or she must be *militant*, however!)

The studies resulting in the conclusions of this book have been generously supported by the Norwegian Research Council for Science and the Humanities, and have also benefited greatly from a trip to Varanasi, which allowed me to become familiar with contemporary Gandhian groups in the motherland. The small but resourceful group of mostly young people who have tried to apply Gandhi's principles have been a constant source of joy and consolation to me when struggling with the vast theoretical questions of nonviolence. To them I owe a special debt of gratitude.

This book, which was originally planned to be the first volume of a more comprehensive work, will have a sequel by Professor Johan Galtung

AUTHOR'S FOREWORD TO THE FIRST EDITION

dealing with the practical implementation of Gandhian norms in contemporary societies. Professor Galtung also cooperated with me in the writing of this book. I hope that his now independent work will soon be available because a theoretical background is worth little without a practical foreground.

I would like to thank Alastair Hannay for his generous efforts to improve my English. I am also grateful to the publishers of my book *Gandhi and the Nuclear Age* (1965) for permission to use material from that work. Chapter 1 is taken, with slight alterations and additions, from pages 3–15 and 21–23 of that work; chapter 5 contains material from pages 81–92 and 98–106.

Freedom, Emotion, and Self-Subsistence

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

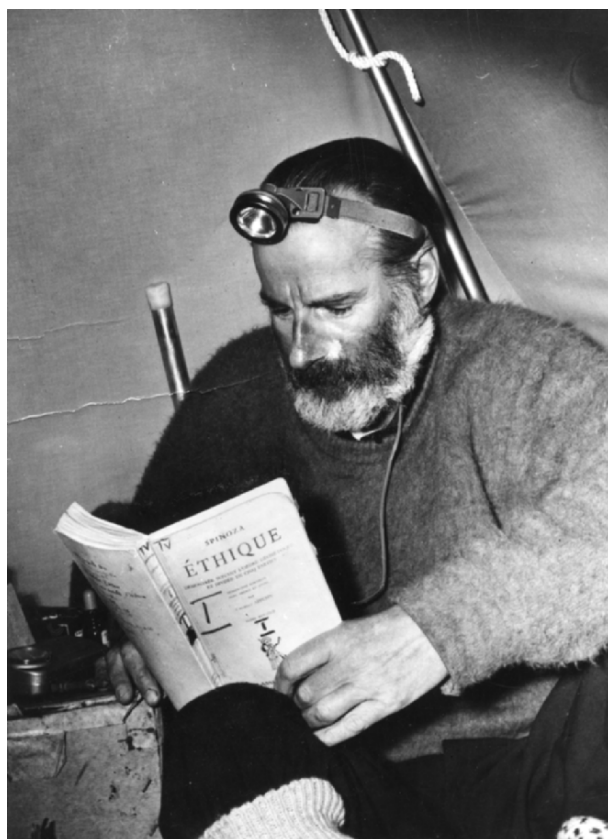
Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

Revised and Edited by Harold Glasser
in Cooperation with the Author
and with Assistance from Alan Drengson

VOLUME VI

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in English by Universitetsforlaget, Oslo, 1975.

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>Series Editor's Introduction</i>	<i>ix</i>
<i>Author's Introduction to the Series</i>	<i>lv</i>
<i>Author's Preface to This Edition</i>	<i>lxi</i>
<i>Author's Preface to the First Edition</i>	<i>lxv</i>
<i>Abbreviations</i>	<i>lxvii</i>
Introduction	i
I. The Fundamental Dual Distinction: “In Itself” and “In Something Else”	9
Survey A	9
Survey A Using Symbols	14
II. Existence and Freedom	23
Survey B	24
Survey B Using Symbols	28
III. Causation, Cognition, and Action	31
The Hypothesis of Cognitive-Causal Parallelism	31
Survey of Theorems	33
Causation, Understanding, and Existence	33
Activeness	37
Human Beings as Part of Something Else	39
Survey C Using Symbols	41
IV. Grading Basic Distinctions	53
Survey D	53
Freedom: A Matter of Degree	53

CONTENTS

Grading “Being in Itself”	57
Power	62
Survey D Using Symbols	65
Grading “Conceived Through Itself”	71
Grading Requirements for “Being” and “Being Conceived”	74
Grading Other Previously Introduced Predicates	76
Power Relations	77
V. The Road to Freedom Through Active Emotion	83
Introduction	83
Survey E Using Symbols	87
States of Emotion	87
Basic Human Striving	91
General Striving	92
VI. Joy	95
Survey F Using Symbols	95
Joy	95
Perfection	97
Self-Preservation	101
Cheerfulness (<i>Hilaritas</i>)	104
Pleasurable Excitement (<i>Titillatio</i>)	106
Sorrow, Melancholy, and Pain	107
VII. Good and Bad and Usefulness	113
VIII. Virtue and Reason	119
Virtue	119
Reason	121
IX. Self-Satisfaction	125
<i>Appendix I: Approximate Signification of Single-Letter Symbols</i>	<i>131</i>
<i>Appendix II: Approximate Meaning of Multiple-Letter Symbols</i>	<i>133</i>
<i>Appendix III: Basic Equivalences</i>	<i>137</i>
<i>Notes</i>	<i>139</i>
<i>References</i>	<i>143</i>
<i>Index</i>	<i>145</i>

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of

what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philosophical palette, not the “world” of his own consciousness as has become

the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our experience of the world is made up of gestalts. "[This] is the world we experience. Nothing is more real."⁴ People create abstract structures to reflect

SERIES EDITOR'S INTRODUCTION

on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess's parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess's "ontological realism" as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of "reality is one" plays a central role in the mature Naess's approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality's concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. "As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence."⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess's perspective, such accounts by themselves are merely a sign of cultural poverty. "God" could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess's gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as "the social construction of nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular

to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility

SERIES EDITOR'S INTRODUCTION

as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his

rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative systems can be seen as very "useful fictions," which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others

SERIES EDITOR'S INTRODUCTION

as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a

troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. "We have all read it. We *still* cheat in argumentation, but now with feelings of guilt."¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as "truth," "democracy," and "private enterprise." . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy

SERIES EDITOR'S INTRODUCTION

and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of

print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a "great idea" without Doug's generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of envi-

SERIES EDITOR'S INTRODUCTION

ronment should not, in Naess's view, play a pivotal role in shaping a budding philosopher's development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess's philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess's principal writings. As such, the *Selected Works* is the definitive repository of Naess's oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess's philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded, and should follow his questions wherever they lead.

Arne Naess, "Norway"

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep

rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small moun-

SERIES EDITOR'S INTRODUCTION

tain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potently influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way"—*sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek

broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The

turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that

change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess’s 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers’ intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers’ “commonsense” views on the notion of truth. He then related these notions to philosophers’ theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess’s results were published as “*Truth as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess’s “Common Sense and Truth” (in SWAN VIII). Naess’s continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Us-

SERIES EDITOR'S INTRODUCTION

taoset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created “institutes” of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi's catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi's idea of trying to meet one's opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war,

Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO's requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy's* richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess's “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess's empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess's frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

SERIES EDITOR'S INTRODUCTION

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO's plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess's research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on

scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is

SERIES EDITOR'S INTRODUCTION

Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation*

and Preciseness, to argue that it is an illusion to assert that combined scientific and philosophical or “purely” philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V),

SERIES EDITOR'S INTRODUCTION

was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), "Seek complete self-realization" and "Seek truth," and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of "Self-realization!" as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokely Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by

Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions

SERIES EDITOR'S INTRODUCTION

taken earlier. Volume VIII includes sections on "Empirical Semantics and 'Truth,'" "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion,

and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work enter-

SERIES EDITOR'S INTRODUCTION

ing into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach’s proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans’ special capacities for reason and moral consciousness come special responsibilities,

particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and

SERIES EDITOR'S INTRODUCTION

interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three

key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy)

SERIES EDITOR'S INTRODUCTION

make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this ap-

proach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manu-

SERIES EDITOR'S INTRODUCTION

scripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and

SERIES EDITOR'S INTRODUCTION

Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also

SERIES EDITOR'S INTRODUCTION

performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-

SERIES EDITOR'S INTRODUCTION

Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible “work fairies” that were constantly pulling me back to my office don’t actually exist. I can’t wait.

Most of all, thanks to Arne Naess for placing his trust in me—it’s been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora’s box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne’s writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder’s “Axe Handles.” The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The

SERIES EDITOR'S INTRODUCTION

first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.

SERIES EDITOR'S INTRODUCTION

6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary

SERIES EDITOR'S INTRODUCTION

philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as

SERIES EDITOR'S INTRODUCTION

- being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.
24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
 25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
 26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Meneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
 27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhis Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
 28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
 29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
 30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecol-

SERIES EDITOR'S INTRODUCTION

ogy approach to ecophilosophy," the "deep ecology movement," and Naess's "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was "A philosopher." In fact, I had already conceived of myself as one. I viewed the

AUTHOR'S INTRODUCTION TO THE SERIES

writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that “What do I mean?” is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these “ordinary” people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally

AUTHOR'S INTRODUCTION TO THE SERIES

necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclina-

AUTHOR'S INTRODUCTION TO THE SERIES

tion very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it

AUTHOR'S INTRODUCTION TO THE SERIES

natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity,

AUTHOR'S INTRODUCTION TO THE SERIES

attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

This work has the long title, *Freedom, Emotion and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics*. *Self-subsistence* is meant in the philosophical sense of “persistence of the Self,” not mere survival. *Emotion* refers to Spinoza's important view that strong positive emotion is necessary to make rapid progress to high levels of human freedom. The application of this view underlies my belief in the indispensable function of Spinoza to supporters of the deep ecology movement. Their positive relation to life on earth is highly emotional. They are led to a positive appreciation for the vast interconnection of life-forms in a wide ecosystem through an emotional care for life-forms of all kinds. A neutral, factual description of this interconnectedness is not enough to move us to act. A cold assessment of the usefulness of certain life-forms does not mobilize a persistent fight against the destruction of species that is going on everywhere.

A book on Spinoza's philosophy generally appeals to people with a background in the humanities, not in analysis and symbolic logic. To the former this book on Spinoza looks formidable: it seems to be filled with formulas. Why use such formulas?

One reason is obvious. Spinoza's *Ethics* is a complex text. There are, for example, more than 270 sentences of the kind “By . . . I mean,” “. . . is the same as . . .,” and so on, where “. . .” may be entities of some kind, including words, more complex text units, or concepts. Those with a prodigious memory might keep the hundreds of important connections between these 270 entities ready in their minds. Most of us cannot do this, and understanding what we are entitled to call a Spinozan total view escapes us. Extremely simple formal logic notation can help us decisively to keep these interconnections clearly in mind.

Are they extremely simple? I thought so when writing this book: “Only a couple of hours study and you will appreciate the help of the sym-

AUTHOR'S PREFACE TO THIS EDITION

bols." It seems, however, that the feeling of simplicity owed to my very early experience. When I was seventeen, I found a reference to the three-volume *Principia Mathematica* by Bertrand Russell and Alfred North Whitehead. They were said to have derived mathematics from pure logic—pure thought, I imagined. It sounded romantic, but the three big blue volumes were formidable. What did I pretend? The first series of derivations was peculiarly easy. They did not skip any premises, whereas the proofs in my school mathematics text jumped along like a boy who had hurt his knee. I enjoyed the logical calculi, and as I was young it was easy to learn. Not so easy perhaps for mature humanists, most of whom dislike such formulas. Strong motivation is essential to master such symbols.

The logical structure of Spinoza's *Ethics* leaves many openings for a variety of interpretations of the content. Historical evidence rules out a lot of them as expressions of the strictly personal view of Spinoza, who lived in a period very different from ours in most ways. Within a framework made up of the essential parts of the *Ethics*, there are many possible interpretations. Moreover, Spinoza changed his views in many ways over his lifetime. I am interested in what he would have retained in later editions of the *Ethics*, if he had lived considerably longer.

The difference between the history of ideas and the philosophy of total views is particularly clear in the case of great systematizers such as Aristotle, Hobbes, and Spinoza. Spinoza scholars like John Yolton who focus on the ideas of young Spinoza interacting with others in a particular spiritual environment find my approach somewhat strange and ahistorical. I think Yolton's findings are of limited relevance to my efforts at reconstruction and the search for salvation. As an example of what a systematic approach might imply, let us look for a moment at the word *Deus* ("God") in Spinoza's text. It is carefully defined. This fact makes it possible to leave it out in a reconstructed text! The definiens is simply substituted for the definiendum. From the point of view of a historian, and especially a historian of ideas, such an omission borders on blasphemy. For the systematician, the history of ideas is an indispensable auxiliary discipline, but only one among other important disciplines, for example, Medieval Latin—as in the use of the term *causa*. These are only auxiliaries, however! My central question has been, How can the texts of Spinoza, together with my more or less intuitively based appreciation of his person and mission, help me in my search for truth? Perhaps some others could be helped in the same way, perhaps not.

AUTHOR'S PREFACE TO THIS EDITION

There is such a splendid variety of Spinoza interpretations. However, it is difficult to understand why no one has focused on his insight into how we can increase our freedom through strengthening and intensifying our positive emotions. Spinoza says increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow. So many interpretations tend to focus on his so-called determinism, the illusion of free will, our slavery under negative passions, and on human beings as tiny creatures in a vast universe without understandable goals, and yet it is claimed rational to believe in God.

Few interpretations try to use Spinoza's own way of exposition with propositions, proofs, and fundamental axioms and definitions. Because of the great number of closely intertwined concepts, some sort of "Euclidian" method of exposition might or might not be the most convenient and yet be the only way to get a proper survey of his system as expressed in the *Ethics*. In any case, this is what I have tried to do in an exposition of some basic features of his system. For those who have experience using simple logical symbols, this text will be easy reading, but for those who have no such experience, what is said using formulas is also expressed in English.

I am convinced that Spinoza's firmly integrated view of human life, and the way to live it, will in the future inspire more people than ever before. We need Spinoza as a source of inspiration, but of course we also need our personal interpretations. Mine is only one of many.

Arne Naess

2004

Author's Preface to the First Edition

Of the many friends of Spinoza among professional philosophers, very few specialize in his philosophy as a system. This seems to me to be a deplorable situation, since few philosophers, if any, have so much to offer us today.

Spinoza's system belongs to the seventeenth century. Its concepts and structure are very foreign to us. Interpretations that try to be as faithful as possible to all details are necessarily of immense complexity—practically unsurveyable. What follows is a reconstruction of some aspects of the system that to me are of central importance for the understanding of human nature.

I am grateful for the help received from colleagues and students.

Abbreviations

The following abbreviations are used in reference to text units of Spinoza's *Ethics*:

D	<i>Definitio</i>	definition
A	<i>Axioma</i>	axiom
P	<i>Propositio</i>	proposition
Dem	<i>Demonstratio</i>	proof
Cor	<i>Corollarium</i>	corollary
Sch	<i>Scholium</i>	note
E	<i>Explicatio</i>	explanation
Aff	<i>Affectus</i>	emotion, affect
App	<i>Appendix</i>	appendix

The references are standardized:

ID7	Definition 7 of part I
IIIP9Sch	Note to proposition 9 in part III
IIIAffD3	Definition 3 of the affects at the end of part III
VP42Dem	Proof of proposition 42 in part V

Introduction

Spinoza's terminology is very rich. Several hundred different words and expressions in his axioms, definitions, theorems, and proofs express together the basic framework of his all-embracing system. Some of these terms are fairly unproblematic in their use, but most are not. One may safely assume that many pairs or groups of terms have the same extension, but this would not prevent them from having widely different meanings in the sense of connotation or intention. Thus, "to be substance," "to be (completely) in itself," and "to be (completely) free" may have the same extension but have different connotations.

Most of the key terms in the *Ethics* have different shades of meaning in different contexts. The differences are obviously relevant to Spinoza's total field of conceptual discriminations, which is so vast that a set of relevant relations between terms runs into the thousands. A survey of such relations was compiled as a preliminary to this work.¹

From a narrow didactic undertaking—the survey of essential terminological relations—I was led to take up the task of partially reconstructing Spinoza's system using a terminology that in some connections may sound strange or far-fetched to some of his students. This is unavoidable, however, if Spinoza's thinking is to be used in our lives.

The reconstruction starts with a set of eighteen theorems concerning that which is in itself or in something else; that which is conceived through itself or by something else; that which does or does not require something else in order to exist; and that which does or does not require other conceptions in order to be conceived.

This beginning is rather abstract and may, I am afraid, bore some readers, but the distinction between "in (through) itself" (*in se*) and "in (through) something else" (*in alio*) occupies a fundamental position in Spinoza's system. The distinction can be called *ontological* insofar as it has to do with ways

INTRODUCTION

of existing or being and *epistemological* insofar as it has to do with ways of conceiving. To avoid misunderstanding, however, I have sometimes elected to use the more dynamic term *lambanological*, which comes from the Greek verb λαμβάνω (to grasp), as opposed to the static and platonic *epistemological*. To be active or to act and to understand cannot be systematically distinguished in the *Ethics*.

The translation of *conceptus* to *conception* rather than to *concept* is preferred to keep the modern discussion of concept, conceptualism, nominalism, and realism at a distance, and also to catch some of the dynamism implicit in the Spinozistic *conceptus*. I take *conceptus* and *conception* to be just a substantivation of *concipere* and *conceive*. No concepts *result* from the acts of conception.

In Spinoza's system, cognition has more to do with "causing," "consuming," "freeing," and "grasping" knowledge than with "possessing" it. The neologism *lambanological* will be given the general sense of "having to do with grasping." Conceiving, understanding, acting, and (human) causing will accordingly be classed as parts or aspects of a unitary process, grasping.

In what follows, we shall often class a statement by Spinoza as either ontological or lambanological. Some comments on the practical criterion may therefore be appropriate. The distinction between ontological and lambanological as applied to the text of Spinoza refers to certain differences well exemplified in the eight definitions of part I of the *Ethics*.

The first definition (ID1) includes two *definiens* phrases: "that, the essence of which involves existence" and "that, the nature of which cannot be conceived except as existent." The latter makes the definitorial delimitation of a cause of itself directly and explicitly dependent on the act of conceiving. The phrase and its meaning in the introduced terminology are lambanological. The former does not express any such dependency explicitly and directly. It nevertheless refers to something, an entity, an *on* (*ov*). Consequently, I call it ontological. Thus, the first definition has a combined ontological *and* lambanological *definiens*. In short, it is ontological-lambanological. When the same test is used, ID2 and ID3 are also classifiable as combined ontological-lambanological. According to ID4, perceptions of the intellect (substance-perceptions) contribute to the delimitation of "attribute." Actually, nothing else is referred to. The *definiens* is surely lambanological. Since, however, an attribute is said to be that which the intellect perceives, the attribute itself is not a perception or any other feature of cognition. So we might add the adjective *ontological*. ID5 also exhibits both

lambanological and ontological meanings. ID6 and ID7, on the other hand, do not refer directly and explicitly to any conception or perception. They are purely ontological. The last definition delimits eternity in terms of conceiving and falls into the lambanological-ontological class. Thus introduced, the distinction does not automatically furnish any general criterion for what belongs to ontology and what does not. It definitely does not parallel the Kantian distinction.

Regarding the classical question of ontological or epistemological primacy, it is characteristic of Spinoza that both ontology and epistemology enter at the very bottom or start of his system—if there can be a “start” of a system. His fundamental vision is somehow beyond that distinction, it seems. He permits himself to mix ontological and epistemological statements in his proofs. I shall try to do justice to the fundamental vision of unity by elaborating *equivalences* in a sense to be clarified later. In part I of the *Ethics*, the unity of vision is attested by a series of parallel ontological and lambanological propositions. For evidence of this, see especially ID1, ID3, ID5, ID8, IA4, IA7, IP2Dem, IP3, and IP3Dem.

Many distinctions, for example those between God and man, and substance and mode, are less fundamental in the sense that they already presuppose the dual distinction: in itself or in something else, conceived through itself or conceived through something else. The dual distinction, on the other hand, does not presuppose the distinctions traditionally taken to be fundamental in Spinoza’s system. The notion “conceived through itself,” for instance, does not presuppose the notion of substance, nor does the notion of “in itself” presuppose the notion of God.

It has been argued that the distinction between substance and mode cannot be less fundamental than the one between “in itself” and “in something else,” since the person who makes the distinction is already a mode when forming the latter distinction. The priority is rather the other way around, it is said. Against this, I would answer, first, that the same argument, if valid, also holds against taking the distinction between substance and mode as the more fundamental, since the person making the distinction is already something in something else. Second, the fundamentality of the distinction between “in itself” and “in something else” has to do with Spinoza’s ontological status as a mode—*all* his life.

Why does Spinoza not introduce “in itself” in terms of substance? Why doesn’t he write “By being in and being conceived through itself I under-

INTRODUCTION

stand being substance”? From this and a series of other definitions one might try to reverse his text. My answer is that this would involve not only a change of mode of exposition, but also an unwarranted change of priority in Spinoza’s thinking: he understands and contemplates substance, mode, God, attribute in part as that which is in itself or that which is in something else, and that which is conceived through itself or that which is conceived through something else—not the other way around. The terms *substance*, *attribute*, *God*, *mode*, and *Nature* are expendable in his system, but of course they were necessary on the seventeenth-century scene. Much is gained today in understanding Spinoza by breaking down the traditional domination of those terms in expositions of the structure of his thought.

By means of the third definition of part I (ID₃), we eliminate from the text the term *substance* whenever doing so facilitates understanding. The definition is worth quoting here because of the peculiar shift from ontological to lambanological terminology—a shift I shall make use of in the following pages: “By substance I understand that which is in itself and is conceived through itself: that is, that the conception of which does not require the conception of another thing, from which it must be formed.” The property of “being conceived” is completely on a par with “being.” Substance cannot be unconceived, by definition.

The fundamental dual distinction is expressly and directly made use of in the *definiens* formulations or the proofs in the many text units: ID₃, ID₅, IA₁, IA₂, IP₂Dem, and so on. Indirectly, the dual distinction enters all through the *Ethics*. It enters, for instance, into all propositions in part I using ID₃ and into the proofs referring to ID₃, that is, IP₁Dem, IP₂Dem, IP₄Dem, IP₅Dem, IP₆Dem₂, IP₁₀Dem, IP₁₅Dem, IP₁₈Dem, and IP₂₈Dem.

To the ontological axiom 1, “that which is, is either in itself or in something else,” corresponds “that which is, is conceived either through itself or through something else.” This latter lambanological proposition cannot be denied a place in the system in spite of its not being explicitly formulated in the *Ethics*. It occurs as number six in my initial set of eighteen propositions (I call it A6). It is my contention that hundreds of more or less important, so-far-unstated theorems cannot be denied their place in the system. They follow either directly or indirectly from definitions, axioms, propositions, or other central statements in the very core of the *Ethics*.

In reconstructions, the lambanological parallel to axiom 1 can be introduced as a separate axiom, or derived from axiom 1 and a proposition, defi-

dition, or axiom. There are a number of possibilities open. We shall not, however, take up problems concerning the status of the various propositions as parts of various reconstructions. Instead, we shall leave the subject, repeating that our sets of theorems do claim validity, but not any definite hierarchical place in the expositions or reconstructions of the system, axiomatic or otherwise.

Even the very small set *A* of theorems contains as many as fifteen different predicates of high systematic relevance. To facilitate the survey of the theorems and to remind us of their internal relations, the lower predicate calculus is used to symbolize them in the survey beginning on page 14. To do this requires only seven capital letters. The eighteen propositions are symbolized by means of abbreviated predicate expressions.

In chapter 1, the use of symbols is purely heuristic and has little bearing on our choice of theorems or their derivation. Those who are not familiar with the functional calculus, or dislike symbols in philosophical contexts, may ignore formulations using symbols. In any case, translations of symbolic expressions are always included in the text.

Some logicians have discussed the possibility of formalizing Spinoza's system. Such an undertaking, however, is doomed to be unsuccessful given the complexity of his texts. What I have done in the following chapters has little, if anything, to do with formalization of a doctrine. Only a small (but central) sector of relationships in the *Ethics* is expressed in symbols, and the sector is itself isolated from the rest by more or less arbitrary, but heuristically justifiable, delimitations. The sector expressed by means of symbols in what follows makes up scarcely more than 1 percent of the *Ethics*, even if we limit ourselves to its major conceptual structures. Chapter 2 introduces the notion "conceivability of the nonexistence of something." It is an important ingredient of the notions "essence involving existence" and "freedom." These notions are all linked to the fundamental dual distinction: that which cannot be conceived as nonexistent is nothing else than that which is in itself (and so on). In a set of twenty-one theorems (referred to as B1–B21), various internal relations and relations to the theorems of chapter 1 are clarified.

The basic relation in all this is extensional equivalence—symbolized by "ekv." The relata of extensional equivalence are whole sentences. In the following chapters we make extensive use of a less intimate relation, namely, that of mutual implication: "If *x* has the property *A*, then *x* has

INTRODUCTION

property *B*, and if *x* has property *B*, then *x* has property *A*.” “Ekv” implies mutual implication, but mutual implication does not imply “ekv.”

In terms of conditions, the presence of property *A* is a sufficient condition of the presence of property *B*, if *A* implies *B*. If something is in itself, this is, according to Spinoza, a sufficient condition of its being conceivable through itself; but if something is conceivable through itself, it is also in itself. Thus, *B* also implies *A*. The mutual implication makes *A* a necessary and sufficient condition of *B*, and vice versa.

Several hundred sentences in the *Ethics* are formed as some sort of equivalences: “Desire (*cupiditas*) is nothing else than the *conatus* itself to act” (IVP59Dem); “Desire considered absolutely is man’s essence itself . . .” (IVP61Dem); “. . . considered to possess the same sort of eternity or necessity . . .”; “The cognition of bad (*malum*) is the sorrow (*tristitia*) itself insofar as we are conscious of it” (IVP64Dem); “. . . God or Nature . . .” (IVP41Dem); “From the necessity, or (which is the same thing), from the laws only of the divine nature . . .” (IP17Dem).

Chapter 3 makes the transition into parts III and IV of the *Ethics*, introducing the predicates “understanding,” “freedom,” and “action” and linking them to the fundamental dual distinction.

It is seen, I hope, in chapters 4 and 5 how Spinoza’s positive attitude toward emotions and his belief in unlimited progress of freedom are linked to his basic metaphysical distinctions and propositions. I also hope to explain how he can speak of a genuine road toward freedom in spite of the seemingly prohibitive absoluteness of the fundamental dual distinction introduced in part I. There, man is unfree, fragmentary, impotent—he falls on the wrong side of a seemingly knife-sharp partition between in itself and in something else. In parts III, IV, and V, however, the partition is softened. Accordingly, I substitute for hard dichotomies a parallel set of graded predicates. This is done in chapter 4, which introduces the great turning point in my reconstruction. As will be seen, Spinoza himself suggested grading in the latter part of the *Ethics*. The softening is thus not arbitrary; it represents an implementation of some suggestions made by Spinoza himself.

In chapters 6 through 9, central notions such as “joy,” “good and bad,” “useful,” “virtue and reason,” and “self-satisfaction” are discussed using terms introduced in the preceding chapters. Whereas *substance*, *attribute*, and *mode* are eliminated, some basic scholastic terms, such as *in itself*, are retained in the reconstruction. This inevitably raises a question regarding the

extent to which the present reconstruction will be accessible to people with no special training in scholastic philosophy.

It is hoped that in what follows light will be shed on the term *in itself* through the suggestion of extensional equivalences. If some of these prove satisfactory, to be “in itself” can, in a preliminary way, be understood by concentrating on “that which can be conceived by itself” and its relatively easily understood counterpart, “that which can only be conceived adequately by also conceiving something else.” Or one may choose one of the other equivalences.

One may obtain access to the function of a group of extensionally equivalent terms by starting with those that are most readily understood. Say, for example, that term *A* is fairly well understood in its uses in contexts *a*, *b*, and *c*, whereas *B*, well understood in *d*, *e*, and *f*, is less understood in *a*, *b*, and *c*. By transferring *B* to contexts *a*, *b*, and *c*, one can obtain a better understanding of *B*. In this way the equivalences asserted in what follows can assist in an understanding not only of the conceptual links between the fundamental terms of part I and the conceptual framework of parts III and IV, but also—to a modest degree—of the terms themselves.

What I am trying to do, as indicated by the subtitle of the work before you, is to clarify the structure of a central part of Spinoza’s *Ethics*. If his system is presented as a vast circle, the central parts may be likened to the area of a smaller circle within the larger one. The different central parts of the *Ethics* are then parts within the smaller circle. How they should be conceived in their intimate relation to one another I do not pretend to know. The present study draws inspiration from the clearness and broadness of certain interconnections within the system. It does not pretend, however, to cover all central parts nor, of course, the system as a whole. Nevertheless, the system can be conceived adequately only as *a whole*. I shall assume that the reader has some very general conception of this whole, as I cannot furnish more detail within the confines of this study.

Communication and Argument

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

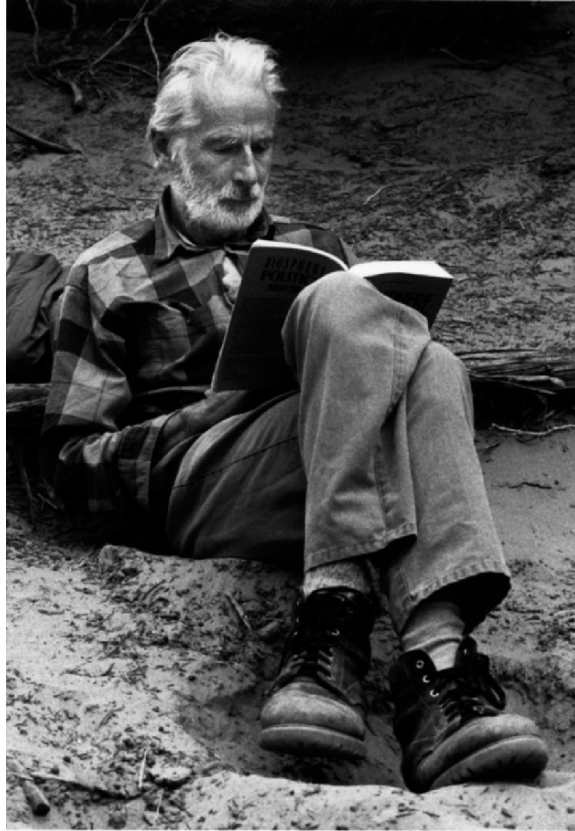
Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Communication and Argument

Elements of Applied Semantics

Translated from the Norwegian by Alastair Hannay

Revised and Edited by Harold Glasser
in Cooperation with the Author
and with Assistance from Alan Drengson

VOLUME VII

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in English by Universitetsforlaget, Oslo, 1966 and 1981
(revised edition). Translated by Alastair Hannay. Published simultaneously by George Allen and
Unwin Ltd., London, and by The Bedminster Press, Totowa, New Jersey.

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>List of Figures</i>	<i>ix</i>
<i>Series Editor's Introduction</i>	<i>xi</i>
<i>Author's Introduction to the Series</i>	<i>lvii</i>
<i>Author's Preface to This Edition</i>	<i>lxiii</i>
<i>Author's Foreword to the First Edition</i>	<i>lxvii</i>
I. Interpretation	I
Grasping What Others Mean	1
Equivalence Between Expressions	9
When Are Expressions Equivalent?	12
Interpreting an Expression	16
Setting Forth Possible Interpretations	18
Reasonable Interpretations	19
Interpretation of Expressions Used as Terms	20
Depth of Intended Meaning	22
II. Precization and Definition	25
Language as an Instrument for Precization	25
Precization Defined	26
Prescriptive Definitions	31
Why Precize or Define?	37
How to Precize and Define	40
The Task and Pitfalls of Definition	41
Sources of Error in Precization	46
New Meanings for Old Terms	48
Fruitful Concepts and Appropriate Terms	50
Precizing Catchphrases and Metaphors	51
Deprecizing and Popularizing	53

CONTENTS

III. Analytic and Synthetic Sentences	55
The Distinction	55
Examples and Illustrations	58
Drawing Analytic Conclusions	61
IV. Agreement and Disagreement	63
A Theory of Two Common Misunderstandings	63
Applications of the Theory	69
Pseudo-Agreement in Argument	73
V. Surveys of Arguments for and Against a Standpoint	75
Psychological and Philosophical Background	75
<i>Pro et Contra</i> and <i>Pro aut Contra</i>	79
Issue Expressions	81
Argument Expressions	82
Tenability and Relevance of Arguments	84
VI. Effective Discussion	97
Introduction	97
Principle One: Avoid Tendentious References to Side Issues	98
Principle Two: Avoid Tendentious Renderings of Other People's Views	99
Principle Three: Avoid Tendentious Ambiguity	100
Principle Four: Avoid Tendentious Argument from Alleged Implication	102
Principle Five: Avoid Tendentious Firsthand Reports	105
Principle Six: Avoid Tendentious Use of Contexts	106
Review of Principles	106
Distinction Between Relevant Argument and Forms of Persuasion	108
 <i>References</i>	 111
<i>Index</i>	113

List of Figures

1. Relationships among expressions (“A”), statements (‘C’), and states of affairs (B).	4
2. Logical relationship of the six forms of equivalence for expressions T and U .	10
3. Relationships between two expressions, T and U .	30
4. Forms of analytic and synthetic sentences.	57
5. Schematic of the structure of an argument.	84

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of

what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philosophical palette, not the “world” of his own consciousness as has become

the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our experience of the world is made up of gestalts. "[This] is the world we experience. Nothing is more real."⁴ People create abstract structures to reflect

SERIES EDITOR'S INTRODUCTION

on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess's parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess's "ontological realism" as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of "reality is one" plays a central role in the mature Naess's approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality's concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. "As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence."⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess's perspective, such accounts by themselves are merely a sign of cultural poverty. "God" could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess's gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as "the social construction of nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular

SERIES EDITOR'S INTRODUCTION

to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility

SERIES EDITOR'S INTRODUCTION

as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his

rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative systems can be seen as very "useful fictions," which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others

SERIES EDITOR'S INTRODUCTION

as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a

troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. "We have all read it. We *still* cheat in argumentation, but now with feelings of guilt."¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as "truth," "democracy," and "private enterprise." . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy

SERIES EDITOR'S INTRODUCTION

and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of

SERIES EDITOR'S INTRODUCTION

print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a "great idea" without Doug's generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of envi-

SERIES EDITOR'S INTRODUCTION

ronment should not, in Naess's view, play a pivotal role in shaping a budding philosopher's development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess's philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess's principal writings. As such, the *Selected Works* is the definitive repository of Naess's oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess's philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded, and should follow his questions wherever they lead.

Arne Naess, "Norway"

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep

rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small moun-

SERIES EDITOR'S INTRODUCTION

tain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potently influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way"—*sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek

broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The

turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that

change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess’s 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers’ intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers’ “commonsense” views on the notion of truth. He then related these notions to philosophers’ theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess’s results were published as “*Truth as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess’s “Common Sense and Truth” (in SWAN VIII). Naess’s continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Us-

SERIES EDITOR'S INTRODUCTION

taoset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created “institutes” of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi's catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi's idea of trying to meet one's opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war,

Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO's requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy's* richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess's “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess's empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess's frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

SERIES EDITOR'S INTRODUCTION

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO's plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess's research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on

scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is

SERIES EDITOR'S INTRODUCTION

Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation*

and Preciseness, to argue that it is an illusion to assert that combined scientific and philosophical or “purely” philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V),

SERIES EDITOR'S INTRODUCTION

was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), "Seek complete self-realization" and "Seek truth," and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of "Self-realization!" as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokely Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by

Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions

SERIES EDITOR'S INTRODUCTION

taken earlier. Volume VIII includes sections on "Empirical Semantics and 'Truth,'" "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion,

and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work enter-

SERIES EDITOR'S INTRODUCTION

ing into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach’s proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans’ special capacities for reason and moral consciousness come special responsibilities,

particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and

SERIES EDITOR'S INTRODUCTION

interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three

key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy)

SERIES EDITOR'S INTRODUCTION

make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this ap-

proach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manu-

SERIES EDITOR'S INTRODUCTION

scripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and

SERIES EDITOR'S INTRODUCTION

Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also

SERIES EDITOR'S INTRODUCTION

performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-

SERIES EDITOR'S INTRODUCTION

Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible “work fairies” that were constantly pulling me back to my office don’t actually exist. I can’t wait.

Most of all, thanks to Arne Naess for placing his trust in me—it’s been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora’s box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne’s writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder’s “Axe Handles.” The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser

2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The

SERIES EDITOR'S INTRODUCTION

first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.

SERIES EDITOR'S INTRODUCTION

6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary

SERIES EDITOR'S INTRODUCTION

philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as

SERIES EDITOR'S INTRODUCTION

- being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.
24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
 25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
 26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Meneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
 27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhis Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
 28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
 29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
 30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecol-

SERIES EDITOR'S INTRODUCTION

ogy approach to ecophilosophy," the "deep ecology movement," and Naess's "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was "A philosopher." In fact, I had already conceived of myself as one. I viewed the

AUTHOR'S INTRODUCTION TO THE SERIES

writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that “What do I mean?” is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these “ordinary” people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally

AUTHOR'S INTRODUCTION TO THE SERIES

necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclina-

AUTHOR'S INTRODUCTION TO THE SERIES

tion very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it

AUTHOR'S INTRODUCTION TO THE SERIES

natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity,

AUTHOR'S INTRODUCTION TO THE SERIES

attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

There are different philosophical traditions within higher education. When I became the full professor of philosophy at the University of Oslo in 1939, university regulations required teaching logic to all entering students. In my course I tried out propositional calculus with ample application to everyday problems. The students found the course amusing. I soon developed a course using a textbook that in translation is entitled *Communication and Argument*. About a hundred thousand students went through this course from 1941 to 1970, in small groups, ideally of fifteen students. Sometimes the groups degenerated into masses of more than twenty.

The aim of this highly practical course was to change nearly every university student's attitude toward communication and argument. The students came to feel that, strictly speaking, they never meant anything *very* definite when they were arguing, or when thinking in general. In everyday life it is unnecessary and even harmful to search for maximum preciseness. At the university level every student should know what it takes to be fairly precise. Sometimes a high level of *definiteness of intention* is required for some purposes.

Some colleagues and parents were highly critical of this course. One year, when a new university president was being elected, a professor announced that the election was a vote for or against my logic course.

When I read the text today, it is easy to understand the course's hidden dynamite: the teachers and students were supposed to use examples from the political, social, or ethical debates raging in the newspapers, or among faculty and students. The more emotional the subject was, the better. Each student was supposed to be confronted with his or her own confusions. This can be threatening to established thinking.

When asked whether he thought he meant something completely un-

AUTHOR'S PREFACE TO THIS EDITION

ambiguous and precise when he wrote or said that he had *proved* something, the world-famous mathematical logician Thoralf Skolem, after some hesitation, and to my disappointment, answered yes. As I understand it, there is uncertainty about what *exactly* means in the abysmal debate on the fundamentals of proof theory.

The English translation of *Communication and Argument* is somewhat watered down. The original Norwegian book—complete with exercises—is the only textbook that I regret was not used more extensively, say, by a thousand times as many students, that is, a hundred million.

The last chapter is an application of the ethics of nonviolence in discussions and controversies. The title “Effective Discussion” is somewhat misleading. It was only under pressure that I did not call the rules Gandhian. At every moment we have to treat an opponent in a debate as an inviolable, sovereign person. Whatever his or her behavior, misquotations, insinuations, attitude of contempt, one should remain unruffled and not deviate from the theme of the discussion. Against this it was objected that debates must be amusing or dramatic because, otherwise, very few are willing, or even able, to concentrate for more than a few moments. Actually, at public meetings the students following these rules did not win debates. They tended to be serene and dull, but that is *not* required. One can make jokes and do amusing things, but not in a way that might mislead and thereby influence the argumentation. This is very difficult! Training is, of course, necessary. They did not get that in my course. On at least one occasion the result was deplorable: A famous poet and actor attacked science in a most witty and brilliant way. The thousand listeners, all students who had taken the course, enjoyed the performance, but they felt and were helpless in the ensuing debate. Therefore, the actor “won.”

In the West there is talk about “the intelligentsia” as a special layer of a modern society. Through hundreds of years, the French were seen as leaders of intelligent spiritual communication. When I had the opportunity to *influence* all newly enrolled Norwegian university students through the required logic course, I decided to give a course in the *practice* of communication. It was given at a sufficiently high level to match the ideals of a minority, and so I focused on communication in social and spiritual *conflicts*. The text was meant to assist the students in discovering good examples of communication in situations of conflict. In conflicts it is normal to depict opponents as stupid and satanic, using all kinds of tricks. However, there

AUTHOR'S PREFACE TO THIS EDITION

are also misunderstandings due to vagueness, ambiguity, use of slogans as if they were arguments, and so on. This book (SWAN VII) outlines practical standards of goals for Gandhian communication. A new chapter outlines some topics of the hermeneutic movement.

The empirical semantics in this book is used in everything I write, and especially in articles on the deep ecology movement. This explains my good relations with theorists of social ecology and Third World authors, who feel that the West pressures them on ecological policies. North/South debates need the ethics of communication and argument described herein.

The *Times Literary Supplement* said of *Communication and Argument*: "Its main purpose is well defined: to teach people in a democratic society to think clearly, and above all, responsibly. Its six chapters are concerned with interpretation, precision and definition, analytic and synthetic sentences, agreement and disagreement, *pro-et-contra* and *pro-aut-contra* arguments and the factors contributing to effective discussion. Probably no philosopher or sociologist now living could peruse this simple manual without learning something from it."

Arne Naess

2004

Author's Foreword to the First Edition

Language is used in many different ways and for many different purposes. It may even be “used” without any purpose at all, as when we exclaim unintentionally or become delirious. Generally, people use language to communicate, but by no means always: they also sing for their enjoyment, utter incantations for rain, indulge in polite chatter, and stall for time. Even when language serves purposes of communication, it can, at the same time, have an expressive and evocative function. Nevertheless, the most common uses of language are those in which it serves a straightforward, practical function of communication: we ask for or give information, explain, advise, warn, argue, agree, promise, persuade, preach, or pray. In all such uses, its main feature is something that can be found in any function of language to some degree: a so-called cognitive content. In this book, the primary concern is with those uses of language in which the cognitive content of an expression takes the form of an assertion, that is, when something or another is stated to be the case. The kind of communication in which these uses are central is sometimes called cognitive discourse.

The most obvious case of cognitive discourse is a straightforward assertion about something we can or could perceive to be the case. Less obvious, but clearly also belonging to cognitive discourse, are instances when people engage in abstract and theoretical speculations and their views are aired for public discussion and argument. In fact, whenever we say something and are ready to say something else in support of it, we speak in the “cognitive vein.” Thus, when John Stuart Mill claims that happiness is desirable because—and for him it is a *reason*—men desire only happiness, his statement belongs to cognitive discourse.

The concern here is not with knowledge, truth, and validity as such—it is not with how we should analyze statements that someone knows (e.g., that gooseberries grow on bushes, that two and two are four, or that happi-

AUTHOR'S FOREWORD TO THE FIRST EDITION

ness is desirable), nor with what is meant by saying that such things are true or false. The concern is rather with the more immediate problem of identifying what people—including ourselves—mean when they say things that are in principle open to argument. The problem is a practical one of interpretation, dealing with difficulties arising from the fact that one word sequence can have more than one meaning and that a number of different word sequences can have the same meaning.

It may be helpful to note in passing that the question of interpretation does not arise only in regard to the cognitive content of expressions, as I have roughly defined it above; whenever words are uttered, another question of how to interpret what we hear may arise. When someone swears, is this a genuine reaction or is it only an affectation, or perhaps a rehearsal of some kind? In any use of language, there can arise the question of how (or even whether) a given utterance is meant; but this question of “how” differs from the question of “what.” When we ask ourselves, “What does he mean?,” we are not wondering how we are to treat what he says but rather what precisely it is that he is saying, regardless of whether he says it sincerely, insincerely, or even unconsciously.

Common Sense, Knowledge, and Truth

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

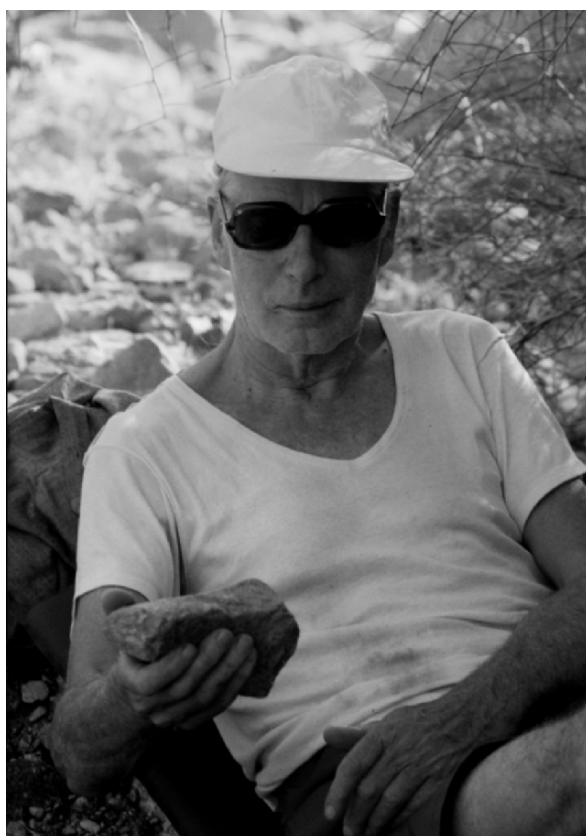
Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World
Selected Papers

Edited by Harold Glasser and Alan Drengson
in Cooperation with the Author

VOLUME VIII

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>List of Figures and Tables</i>	<i>ix</i>
<i>Series Editor's Introduction</i>	<i>xi</i>
<i>Author's Introduction to the Series</i>	<i>lvii</i>
<i>Preface by Alan Drengson</i>	<i>lxiii</i>
<i>Author's Preface</i>	<i>lxxi</i>
I. Empirical Semantics and 'Truth'	1
1. Common Sense and Truth	3
2. Logical Equivalence, Intentional Isomorphism, and Synonymity as Studied by Questionnaires	23
3. A Study of <i>Or</i>	33
4. Typology of Questionnaires Adapted to the Study of Expressions with Closely Related Meanings	45
5. The Empirical Semantics of Key Terms, Phrases, and Sentences: Empirical Semantics Applied to Nonprofessional Language	59
6. A Necessary Component of Logic: Empirical Argumentation Analysis	79
7. "You Assert This?": An Empirical Study of Weight Expressions	89
II. Zeteticism	103
8. Husserl on the Apodictic Evidence of Ideal Laws	105
9. Can Knowledge Be Reached?	115
10. Pyrrhonism Revisited	125
11. Trust and Confidence in the Absence of Strict Knowledge and Truth: An Answer to Nicholas Rescher's Critical Reappraisal of Scepticism	139

CONTENTS

III. Empiricism, Possibilism, and Pluralism	161
12. How Can the Empirical Movement Be Promoted Today? A Discussion of the Empiricism of Otto Neurath and Rudolf Carnap	163
13. The Glass Is on the Table	217
14. Logical Empiricism and the Uniqueness of the Schlick Seminar: A Personal Experience with Consequences	261
15. The Spirit of the Vienna Circle Devoted to Questions of <i>Lebens-</i> and <i>Weltauffassung</i>	279
IV. Metaphysics, Morals, and Gestalt Ontology	291
16. Do We Know That Basic Norms Cannot Be True or False?	293
17. We Still Do Not Know That Norms Cannot Be True or False: A Reply to Dag Österberg	313
18. The Principle of Intensity	319
19. Creativity and Gestalt Thinking	327
20. Gestalt Thinking and Buddhism	333
21. Kierkegaard and the Values of Education	343
<i>Notes</i>	349
<i>References</i>	361
<i>Index</i>	369

List of Figures and Tables

Figures

1.	Strings of equivalence: an example	77
2.	Untitled	84
3.	Untitled	85
4.	Untitled	87

Tables

1.	Summary of Results of Or-Questionnaires Qs ₃₇	40
2.	Most Frequently Used Weight Expressions	97

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he

has witnessed the most significant loss of cultural diversity and the onset of what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bioregionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cul-

SERIES EDITOR'S INTRODUCTION

tural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of “fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess's philosophical palette, not the "world" of his own consciousness as has become the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our

SERIES EDITOR'S INTRODUCTION

experience of the world is made up of gestalts. “[This] is the world we experience. Nothing is more real.”⁴ People create abstract structures to reflect on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess’s parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess’s “ontological realism” as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of “reality is one” plays a central role in the mature Naess’s approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality’s concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. “As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence.”⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess’s perspective, such accounts by themselves are merely a sign of cultural poverty. “God” could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess’s gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as “the social construction of

nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any "natural" tendencies toward anthropocentrism. As with Leopold's Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we "see" reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess's hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples' (or other life-forms') opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess's own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, "For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape."⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced

SERIES EDITOR'S INTRODUCTION

by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to

bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative sys-

SERIES EDITOR'S INTRODUCTION

tems can be seen as very “useful fictions,” which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess's hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess's view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems' requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing

to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the "definitive" Arne Naess. He is a troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. "We have all read it. We *still* cheat in argumentation, but now with feelings of guilt."¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as "truth," "democracy," and "private enterprise." . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

SERIES EDITOR'S INTRODUCTION

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly pro-

SERIES EDITOR'S INTRODUCTION

lific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of

SERIES EDITOR'S INTRODUCTION

land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a “great idea” without Doug’s generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of environment should not, in Naess’s view, play a pivotal role in shaping a budding philosopher’s development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess’s philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess’s principal writings. As such, the *Selected Works* is the definitive repository of Naess’s oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess’s philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded, and should follow his questions wherever they lead.

Arne Naess, “Norway”

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the

SERIES EDITOR'S INTRODUCTION

unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He

SERIES EDITOR'S INTRODUCTION

loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for “collecting” and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family’s little “wilderness” before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother’s small mountain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours’ walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza’s *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess’s desire for a broad and open perspective, for seeing things in totalities (god’s-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth’s biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potentially influence his approach to philosophy.

Arne’s youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School’s first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others.

SERIES EDITOR'S INTRODUCTION

During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way" — *sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical gram-

SERIES EDITOR'S INTRODUCTION

mar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of

knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather “witness” science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality (“maze epistemology”), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess’s interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess’s 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers’ intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related

SERIES EDITOR'S INTRODUCTION

these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as *"Truth" as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's "Common Sense and Truth" (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Ustaoset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created "institutes" of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into re-

SERIES EDITOR'S INTRODUCTION

search and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi’s catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi’s idea of trying to meet one’s opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war, Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO’s requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy*’s richness, diversity, and multiplicity of

SERIES EDITOR'S INTRODUCTION

meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess’s “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess’s empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess’s frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO’s plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess’s research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his

philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or im-

SERIES EDITOR'S INTRODUCTION

plied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last

group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation and Preciseness*, to argue that it is an illusion to assert that combined scientific and philosophical or "purely" philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN

SERIES EDITOR'S INTRODUCTION

IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V), was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), “Seek complete self-realization” and “Seek truth,” and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of “Self-realization!” as

the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical struc-

SERIES EDITOR'S INTRODUCTION

ture, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions taken earlier. Volume VIII includes sections on "Empirical Semantics and Truth," "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has

more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion, and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or

SERIES EDITOR'S INTRODUCTION

limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as “inventing” deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas’s 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson’s *Silent Spring*. Naess’s work on “deep ecology” can be subdivided into three main thematic areas.³⁰

What I refer to as Naess’s deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess’s general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work entering into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back

SERIES EDITOR'S INTRODUCTION

to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of "philosophical stupor," in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The "shallow," currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The "deep" approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach's proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans' special capacities for reason and moral consciousness come special responsibilities, particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the

SERIES EDITOR'S INTRODUCTION

Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-

evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only

SERIES EDITOR'S INTRODUCTION

who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy) make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally

than usual, rendering *praeclara* as “very clear” rather than the typical “excellent.”³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess’s distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this approach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people’s conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

SERIES EDITOR'S INTRODUCTION

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manuscripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and re-

SERIES EDITOR'S INTRODUCTION

ceive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface.

SERIES EDITOR'S INTRODUCTION

George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mul-

SERIES EDITOR'S INTRODUCTION

vaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible "work fairies" that were constantly pulling me back to my office don't actually exist. I can't wait.

Most of all, thanks to Arne Naess for placing his trust in me—it's been

SERIES EDITOR'S INTRODUCTION

a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora's box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne's writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder's "Axe Handles." The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five

SERIES EDITOR'S INTRODUCTION

hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

SERIES EDITOR'S INTRODUCTION

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.
6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.

SERIES EDITOR'S INTRODUCTION

8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher

SERIES EDITOR'S INTRODUCTION

Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.

SERIES EDITOR'S INTRODUCTION

24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhi's Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecology approach to ecophilosophy," the "deep ecology movement," and Naess's

SERIES EDITOR'S INTRODUCTION

- "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).
31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
 32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
 33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
 34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was

AUTHOR'S INTRODUCTION TO THE SERIES

"A philosopher." In fact, I had already conceived of myself as one. I viewed the writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that "What do I mean?" is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these "ordinary" people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems

AUTHOR'S INTRODUCTION TO THE SERIES

discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my

AUTHOR'S INTRODUCTION TO THE SERIES

knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclination very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

AUTHOR'S INTRODUCTION TO THE SERIES

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II),

AUTHOR'S INTRODUCTION TO THE SERIES

The Pluralist and Possibilist Aspect of the Scientific Enterprise (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity, attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Preface

by Alan Drengson

The twenty-one papers gathered together in this volume have been organized under four broad section titles: (1) Empirical Semantics and ‘Truth,’ (2) Zeteticism, (3) Empiricism, Possibilism, and Pluralism, and (4) Metaphysics, Morals, and Gestalt Ontology. The narrative threads and themes running through these essays are woven together by Arne Naess’s active practice of open inquiry, an inquiry that can be both detailed and comprehensive and is motivated by his strong sense of wonder and his passion to know the world *in as many ways as possible*. It is not by chance that Naess describes in sympathetic terms the way of the zetetic, or lifelong seeker of knowledge, truth, and wisdom (see section 2). As such a seeker himself, he strives to know the world by actively engaging in many ways of observing, analyzing, experimenting, and searching. He regards his writings in much the same way, as works in progress.

Since life is a creative process, not a finished affair, there is wisdom in seeking through open-ended inquiry. From his in-depth study of scepticism, Naess came to appreciate especially the wisdom of a form of Pyrrhonian scepticism called *zeteticism* (chapter 10, “Pyrrhonism Revisited”). The zetetic seeks above all to know truth. Although the zetetic trusts that it is possible to attain truth and knowledge, he or she remains open and does not claim the truth (chapter 11, “Trust and Confidence in the Absence of Strict Knowledge and Truth”). The ancient zetetics, like their modern counterparts, realized that the world of experience is ever changing, that every event has many descriptions, that the world is full of surprises and incomprehensible mystery.

Early in life Naess was impressed by the unity and aliveness that he perceived in the natural world. His sense of wonder was kindled by the

many beings he encountered while playing as a child in the Oslo fjords and in the alpine meadows near Mount Halingskarvet (see SWAN X, chapter 33). In these natural settings he realized that his spontaneous experience had a unity and a sense of personal meaning connected with the natural world. The quality and complex nature of this unity were illuminated for Naess when at age seventeen he began his lifelong reading and rereading of Spinoza's *Ethics* in the original Latin. These childhood experiences and his passionate interests led him on to a lifetime of learning, research, and writing. He became a philosopher in the grand Spinozan way and also a lifelong alpine mountaineer (not just a specialist rock or ice climber). Spinoza is one of many philosophical summits he has climbed (see SWAN VI). Both of these quests—in nature and in philosophy—unite expansive perspectives with appreciation for details and how systems work within systems. In these quests Naess discovered that systems of thought, cultural systems, and ecological systems run in parallel paths but also form intersecting patterns. There are worlds within worlds, as noted in Buddhist philosophy (chapter 20, “Gestalt Thinking and Buddhism”).

Naess approaches research, learning, and philosophy much as a field naturalist studies the life-forms of the natural world. He seeks to understand concepts and words in their natural settings of language, tradition, and culture, just as he tries to see the creatures of the natural world in processes interrelated to smaller and larger ecosystems. The natural world can appear in our personal and cultural narrative traditions in many ways. For Naess, mountains are central to his way of life and personal mythology.

Influenced by Gandhi, Naess also seeks to know and communicate nonviolently. He believes research should be neither destructive nor elitist. The most comprehensive inquiry is open, philosophical, and global; and the questioner uses as many methods and conceptual forms of organization and order as are appropriate to a subject or problem. In texts, for example, words form sentences and sentences are ordered into paragraphs, which in turn make up chapters. Chapters are part of the whole text or novel; the book is part of a literary tradition. The patterns of order seen in wholes as *gestalts* are reflected at every level, from tiny to large. This is true also for the patterns of research that appreciate details in larger systems of meaning in texts and spoken conversations, from single words to sentences, to paragraphs, to a whole story, to a series of related stories, and so on to a mythol-

ogy. Each text or conversation forms a whole made up of many gestalts; and this corresponds as well to the way our experience is formed (chapter 19, “Creativity and Gestalt Thinking”). There are endless ways to organize each of these patterns and subjects.

Open inquiry entails investigating any subject or problem on every level and using many methods (chapter 14, “Logical Empiricism and the Uniqueness of the Schlick Seminar”). Open inquiry brings together our cognitive, emotional, sensual, spiritual, intuitive, and other capacities into a total view reflecting our sense of the whole of life. Naess’s philosophical and research endeavors can be traced to a life purpose that is practically oriented to helping himself and others to realize themselves. He wants each of us to become all that we can be. Because Naess lives by nonviolence, philosophy for him is an active *loving* search for wisdom amid comprehensive values within a great diversity of worldviews. He thinks we each act *as if* we had a total view of the world and our lives, *as if* we knew our ultimate values, and *as if* we knew the relations between our own life condition and the rest of the world. He believes that each of us knows more and is far more capable than we usually realize. Open inquiry is a way to pursue articulation of our total view and life philosophy since it intertwines our own views with other worldviews. Our attempts to articulate these views at a global level—using values that are comprehensive—lead us to ask questions such as, Why do I live the way I do? What are my priorities? What is the meaning of life? What do I most care about?

Each of us has a unique way of experiencing the world, of trying to characterize our experiences, and of expressing our total view through spoken or written language, music, dance, art, and myriad other means. Our most basic freedom is to choose how we will live and relate to others and the natural world. We must have values and we must also know something about the world. Science, even when a solitary undertaking, is one way to pursue knowledge by way of specialized, organized activities that involve others. There are many sciences and many other ways of knowing the world, but all these ways of knowing by means of specialized subjects and disciplines address only discrete aspects of our total spontaneous experience, which itself is inexhaustibly deep and rich. Through open inquiry, as a recursive process of reflective self-awareness, we eventually discover a great pluralism, even within a personal life in a specific cultural context.

PREFACE BY ALAN DRENGSON

When we try to identify ourselves and who we are, we find that our self-knowledge depends on our place and its local traditions; our family; and our personal experiences, culture, and language. In other words, each of us is uniquely embedded in a narrative community. (For broad narrative contexts, see SWAN I, *Interpretation and Preciseness*; for more specific issues, see chapters 1 and 5 in this volume, “Common Sense and Truth” and “The Empirical Semantics of Key Terms, Phrases, and Sentences.”) To know ourselves more fully, then, we must know ourselves in different settings, contexts, and experiences. Even then, none of these can fully define the whole reality of our spontaneous experience.

When we move to global perspectives, we encounter a great diversity of languages and cultures. Naess looks at these as if he were a cultural anthropologist from another solar system. He believes that individuals who are ordinary citizens, not experts or specialists (chapter 5), are a rich source for finding out about the nature of important concepts central to worldviews and values (see chapters 13 and 15, “The Glass Is on the Table” and “The Spirit of the Vienna Circle Devoted to Questions of *Lebens-* and *Weltauffassung*”). What are these semantic connections to the world? Our experience, we find from careful, self-aware examination, is organized by *gestalts*, patterns of meaning and intention inseparable from values and feelings, bound up with thoughts and language. Common sense, as a whole way of responding, seeks *truth* in practical, everyday terms: to know what is the case (chapter 1). The same is true for descriptions of what is *real*.

Reality is complex, deep, and multidimensional. It is possible for each of us to have a unique personal life philosophy and worldview within a great diversity of ecological systems and cultures. Even if worldviews conflict, there can still be understanding. Knowledge and truth, in Naess’s approach, are neither relative nor absolute. There is no single aspect of reality that is the only true or important one. Rather, there are many experienced realities, and all are part of larger and more inclusive *gestalts*. Reality is ever changing and inexhaustible, as our spontaneous experience shows.

Open inquiry into science and similar human enterprises leads us to an inescapable conclusion: there is no evidence-based proof that the future is determined or that probabilities are necessities (see SWAN IV). Scientific theory is just one of many ways of describing diverse aspects of the whole rich world. Naess affirms that possibilism (anything can happen) is liberat-

ing and in tune with open inquiry as a way of life. The future depends on our own actions. We can choose to live in harmony with others and with nature. The quality of our lives and experiences depends on our value choices. The more comprehensive our values and perspectives, the less fragmentary our total view. To be comprehensive and inclusive we must be nonviolent, however. When violent, we are exclusive and separate ourselves from others. Nonviolence is welcoming and inclusive. There are no value-free forms of experience, inquiry, or action (chapter 16, “Do We Know That Basic Norms Cannot Be True or False?”). Naess agrees with Spinoza that active emotions such as love and kindness increase our feelings of connection with the world and give us joy. Positive emotions allow an expansive sense of relationships and self; they enable us to be more effective and to have a higher quality of life.

Open inquiry does not end with specialized knowledge or specific truths about factual matters. It seeks to bring together or unite all ways of knowing and feeling. Thus, it gives us a life of reason that is integrated and whole, one that includes values and feelings as important components of a worldview (chapter 21, “Kierkegaard and the Values of Education”). Naess uses many forms of investigation and analysis—ranging from questionnaires and interviews (chapter 4) to observations, experiments, and textual analysis—to pursue questions such as, What is truth? What and how can we know? What are values? Can basic norms be said to be true? (chapter 16), What is the role of intensity of feeling in relation to moral life and suffering? (chapter 18), and What is the best education for a high quality of life?

One form of investigation he uses is based on empirical semantics, since our comprehension of the world is dependent on language. Empirical semantics takes a descriptive approach and uses a variety of methods to study how everyday language in a specific place is connected with the lives, experiences, and practices of the people of that place. In his studies Naess found that *truth* as explained by experts was more limited and less creative than as explained by ordinary people, who said everything the experts said and more (chapters 2 and 5, “Logical Equivalence, Intentional Isomorphism, and Synonymity” and “The Empirical Semantics of Key Terms, Phrases, and Sentences”). Naess sees no limit to our use of empirical methods, even when they are not equated with the specific epistemology of a

specialized branch of knowledge such as semantics, sociology, or psychology (chapter 12, “How Can the Empirical Movement Be Promoted Today?”). All researchers, even philosophers, should be willing to use empirical methods whenever those methods are appropriate.

Everyday language is the widest and deepest base for illuminating people’s whole life experience through narratives. How can we better communicate, and how does language function in different inquiries? Science and math are specialized, theoretical undertakings that use highly abstract language and concepts. These abstractions are not the concrete contents of the world and should not supplant the wholeness of our spontaneous experiences and ordinary ways of talking. All aspects of our lives and the world are open-ended, inviting creative and original responses from us. The ultimate aim of education is to help us become lifelong, self-actualizing learners and creative persons (chapter 21). As mature, self-realizing persons we are able to articulate our life philosophy. We come to realize, as Naess has, that we can lead a life of deepening quality and appreciation by enjoying the complexities and diversities in the world, including life-forms, cultures, and personal lifestyles unlike our own. Diversity and differences should not be seen as threatening. They should be welcomed. From wider perspectives we can see them with equanimity, as Spinoza observed.

Even the most narrowly framed technical questions, such as an investigation of how the word *or* functions, can be brought into a larger inquiry significant for daily life (chapter 3, “A Study of *Or*”). Just as we can place tiny organisms in their larger ecological settings, so it is with words in a language: we locate them through studying actual contexts of use connected with local and larger narrative traditions of meaning. At the highest level of global narrative ordering, we find mythopoetic themes with ultimate value and state-of-the-world premises that underpin religions, worldviews, and philosophies of life. The spirit of cooperative research and inquiry that characterized the Vienna Circle was the most important thing Naess learned from participating in those discussions (chapter 15). This for him is friendly, community-spirited inquiry that can investigate any subject, including worldviews. It opens to a way of life enriched by wonder as we find ever more perspectives, deeper feelings, greater clarity, and more unifying insights.

This volume focuses the spirit of open inquiry on values, knowledge,

PREFACE BY ALAN DRENGSON

and truth. In it Naess helps us better appreciate the complex structures that compose our whole unified spontaneous experience. We each can find ways to live a meaningful life within this highly pluralistic world, all the while expressing our uniqueness. At the same time, we can cooperate with others to preserve cultural and ecological diversity.

Author's Preface

Reflections on My Papers and the Selections in SWAN VIII–X

During my active life as a researcher and author, I have published far too much to be a polished writer. I have a long practice of working a set number of hours each day, and at ninety-two I have lived a long life. I hold to this even when I live in my mountain hut, Tvergastein. Over the years I have carried in many precious big reference books to put in its “library.” Writing philosophy in the hut, while looking over a vast mountain and alpine landscape, gave me a different feeling and perspective than when working in my office at the university or in my study at home. Each setting is very different and seems to bring out different aspects of the same subject and of myself. There are also the differences in dialect and local customs that fed my search for an ever more complete total view. To me this diversity is good to appreciate for its own sake. Writing, like teaching, is a way to find out things rather than just a dull report on the past. Writing philosophy for me is an ongoing project, a kind of meditation; in a sense, it is something that I must continue daily, because I continue to have more and more gestalts integrated into my total view with feelings of wholeness.

I never regarded the papers or even the books I wrote to be final drafts, but always works in progress, since my life, philosophy, and worldview are all in an ongoing process of change. Altogether, I have probably written thirty or so books published in various languages, and some in several languages. I have had many coauthoring adventures. There are manuscripts of books started but still in progress. I probably have some finished but unpublished book manuscripts. In the area of smaller-scale publications and writings, there are many kinds of pieces from very short to very long—for example, short reviews, long reviews, discussions, definitional pieces, long

AUTHOR'S PREFACE

single-subject essays, historically oriented papers, formal logic pieces, empirical studies, studies of conceptual systems—pieces on so many different subjects that I am somewhat embarrassed by my lack of attention to other things. I almost always write with passion but am not so keen to keep detailed records of my scholarly research, and at Tvergastein these resources are limited.

I have hundreds of manuscripts of articles, reviews, and other nonfiction pieces in my collection. The SWAN project has been a wonderful undertaking because it helped me to get my works organized to be more accessible to a larger audience. My dear wife, Kit-Fai, has been so good to my work that I can only describe her acts as beautiful. She, along with Harold Glasser, Alan Drengson, and others, plied me with endless questions about my works and individual pieces, for references, for greater clarity, for a better organization in time, and so on. The result is an assemblage of more than seven hundred published and unpublished papers.

We were choosing books to publish and papers for the anthologies of my selected works in English. We settled on seven books to be republished as the first seven volumes in the SWAN series. After some discussion with others, we decided to have three volumes of my papers for a total of ten volumes. We pondered what to include in the anthologies of papers and how to organize them. The result is a collection of writings that is a very deep and broad representation of the large number of papers of my work. The first two volumes are devoted to all the subjects I have worked on, from earliest to latest. These collections (SWAN VIII and IX) are organized in thematic sections somewhat chronologically. We decided to devote the third collection to my writings on deep ecology, because they are the most complete example of a total view that I have been able to offer.

Deep Ecology of Wisdom (SWAN X) is in many respects the most complete volume in the series in that it shows the total sweep of my work. It shows how my comparative and ecological inquiries brought together all my interests and studies. It was also a natural place for me to apply empirical semantics guided by a personal mythology, an undertaking that in the 1990s was offered in my book *Hallingskarvet: How to Have a Long Life with an Old Father*. The Tvergastein article in SWAN X (chapter 33) is an example of the philosophical, empirical, and semantic studies that were saturated with this place through time. SWAN X also includes a comprehensive bib-

AUTHOR'S PREFACE

liography of my works in English, which gives readers the most direct access to this whole body of work. Everything in my work is represented, from Spinoza's philosophy on emotions and Gandhian nonviolent communication, to essays on ontology and mountaineering. All of my work comes together in SWAN X. Readers will see the role of my desire to further nonviolent communication and my scepticism about there being only one worldview that is "true." These reflect my love of diversity.

I have mountain perspectives on worldviews. So many of them are beautiful and so suitable to their places! It is a wonder for me to behold this creative diversity. I found the same on the ground around my hut in the extreme mountain arctic conditions there. Even there, worlds within worlds! In that setting, life energies and mysteries are ever present. I came to approach all research from philosophy to ecology as if I were a field naturalist. This is reflected in my writings. Writing for me is a process of creation, discovery, and systematization; an art that helps me to assimilate and be whole with the more I see, as time goes on, from so many different perspectives. A synoptic view, almost holographic, emerged in my writings in many places. Traveling a lot added to learning these things.

Questions of meaning, preciseness, and interpretation are central to all that I do. We greatly underestimate ourselves in relation to our capacities, but we also greatly overestimate (violently at times) the seeming importance of disagreements over words that are frankly not very precise. The very effort to become more precise is itself an enlightening process that, once started, continues with a natural flow on its own. It is a settled practice that flows through my writing. Gandhian nonviolent communication also runs through my daily writings and practices; it is a second nature. My writings are active engagements, and for this reason I do not find them boring or painful. It is a joy to write about these many subjects that have engaged my passionate interest, especially in relation to the natural world.

Readers of these three volumes of selected papers who want to see my work in a more or less organic way that is roughly historical should read these papers in order, SWAN VIII through X. Those who want an overall look at my whole program of research, writing, and lifestyle should first read volume X. They could also read the last two chapters in SWAN IX, "How My Philosophy Seemed to Develop" and "Deep Ecology and Education: A Conversation with Arne Naess."

AUTHOR'S PREFACE

I have been reflecting on my writings and the way I approach and feel about this work. Let me say something about the different research hares I have chased and the lesser peaks and major mountains I have climbed in the process. I will do this by focusing on a recent ten-year period, from 1987 to 1997.

What has made me eager over the decades to continue writing articles in such great numbers? My spontaneous answer is that these are important questions not only for me but also for everything that it is worthwhile to sustain or develop further. By chance, this very sentence exemplifies a question of this kind: what is meant by “not only for me but . . .” and who is the “me” here? Among such questions there are some to which, as an optimist, I feel I can still contribute. These questions fall into two categories: those related to the ecological crisis and those philosophical questions far away from the ecological crisis. Writing for me is a series of adventures that are part of a larger mythopoetic nature narrative.

I thought that in recent decades the environmental crisis articles would make up the majority of my papers during this time, but to my astonishment that is not the case. For example, in the five years from 1991 to 1995, 61 percent of the articles published [by 1997] deal with general philosophical issues, and 68 percent of the unpublished ones are of that kind. Some of the articles are short, only five pages, which in part explains the large number of articles—78 published and 130 unpublished—during this time. I do very little to get my articles published.

One of the philosophical articles has the title “We need philosophies as life- and worldviews.” Many articles, some used in lectures in various parts of the world, deal with what I hope will characterize university philosophy in the twenty-first century: addressing central questions of what constitutes a meaningful life, diversity of cultures, and the nature of reality. Who are we, where are we, and what do we want most? The last question concerns value priorities. University philosophy, *not* the philosophy of “the man in the street” or of writers in general, has been centered on our talk itself, not on what we talk about. It is often talk about talk. The latest fad has been to stop talking about the variety of conceptions of the world in favor of talking about what are called social constructions, just to mention a focus different from life philosophy and worldviews. (Is nature a big *social* construction?) Clearly, as soon as we start *talking* about anything, for example,

about what is “talk,” what is “social,” and what is a “construction,” we are using a *social* creation, *intersubjective* talking. This does not undermine our excellent, direct relations to the matters we talk about and, I am glad to say, have different views about, some of which are quite personal and individual.

I will not bother to explain all the approaches I have taken within the philosophical sphere. I shall only offer some hints. In ethics I have taught, lectured, and written on the conception of being a “traitor,” a word applied to tens of thousands of Norwegians who in different ways were “on the wrong side” during the Nazi occupation of Norway by Germany. Many who did not deserve it were put in prison. Many believed that Hitler would win the war and that the continued independence and freedom of Norway depended on maintaining good relations with the occupying power.

Norway twice has said “No thank you!” to joining the Common Market, now called the European Union. I have written against joining on the basis of a philosophy that favors cultural differences. The EU is a big step in the direction of economic globalization, a formidable obstacle to cultural integrity and diversity. Some call this effort of mine “applied philosophy,” and I agree.

I have called a class of life- and worldviews *Spinozistic*, and my own view belongs to this class, but that does not *imply* accepting as true or valid any of Spinoza’s axioms and theorems. A long series of my articles deal with Spinoza, especially the central position of strong active emotions as a requirement for increasing our freedom and power, a rather un-Western view! I have explored and written about many Eastern philosophies, including Indian and Chinese. Some of my articles compare Spinoza’s views with Buddhist philosophies.

Gandhian studies continue with what I call the “principles of Gandhian communication,” a form of strict nonviolence. The role of the mass media in tough conflicts makes fairness of central importance. Treatment of an opponent as a fellow human being must be without blemish, even when his views seem to be, or are, horrible, despicable, and idiotic—and even if he is a mass murderer. This treatment is *compatible* with the expression of a strong and honest rejection of the views and actions of an opponent.

Felt suffering has been an important theme in my papers for many years. There is a strange, socially and politically important underestimation of acutely felt suffering and an overestimation of a quantified but not necessar-

AUTHOR'S PREFACE

ily *felt* suffering. If by chance a hundred people living distant from one another simultaneously suffer from a slight headache, this multiplicity of persons does not make the felt suffering stronger. I am deeply interested in the quality, the *feelings* of strong suffering, not some “abstract sum” of suffering.

Suppose we have a chance either to rescue a person from continued, systematic torture or to diminish the slight pain of a million people. As I see it, the choice is ethically unproblematic: rescue the tortured person! Politically, the implication is clear: much greater effort is needed to help people in certain extreme conditions. This, of course, cannot be done without angering dictators. What I call the *intensity principle* in dealing with suffering is generally not considered valid, and the possibility of saving people from continued torture is judged to be very small. As I see it, the problem is that usually only conventional means are considered. We need people with imagination, people like those who rescued thousands of tortured persons during the Second World War and the occupation.

As a philosopher influenced by analytic philosophy and an admirer of mathematical physics, cosmology, and pure mathematics, I regarded the one-hundredth jubilee (1991) of the birth of Rudolf Carnap and Hans Reichenbach as an opportunity to rethink my opposition to their philosophical standpoints and to logical positivism in general. I deeply respect their work, and especially their clearness in the matter of premise-conclusion relations. I have worked hard with a normative system that has only one ultimate normative premise, “Self-realization!” It is a result of the influence of my studies in logic and formal systems. In their work, the logical positivists encouraged each other, discussed with fairness, and used each other’s insights. They were not afraid of real disagreements. This is very unusual in intense philosophical discussions! I try to be fair and cooperate in discussions with my critics in social ecology and ecofeminism.

Going back to the five years from 1986 to 1990, I see that my papers are colored by contributions to the deep ecology movement. There is, however, a notable exception in my writings: what I call *gestalt ontology*. Ontology is an old branch of philosophy that tries to characterize what is real compared to what only appears to be real. Might a birch be bright green and joyful, or is it *really* colorless? Is joyfulness perhaps only a “projection” of joy being felt by an observer? Very roughly, my answer is that *spontaneous experiences* are direct experiences of something real. Joyfulness is

AUTHOR'S PREFACE

on a par with tallness and specific weight, when we only talk about pure realness. The experiences have a gestalt character. They are complex wholes, not merely atomistic.

The focus on spontaneous experience may be of positive value for deepening and intensifying positive experiences in nature. This focus also accepts the status of negative experiences. If, for example, a city dweller exclaims "Horrible, threatening" when suddenly facing a large waterfall, it is inappropriate to counter with the assertion "You are mistaken. It is really beautiful!" As to the character of being threatening, one might say that it would be a mistake to predict that the water will engulf us. This is just what gestalt ontology says. We can even have a slightly different version; it leads into rather professional philosophical terminologies. Its main thrust radically undermines the claim that only the exact physical sciences show us what is real. On the contrary, they increasingly focus on extremely *abstract structures* of what is real and do not, as sciences, describe any *concrete contents*.

As an outline of my work (from 1987 to 1997), the above gives a rough picture that is a fair description for earlier periods. I should perhaps add a word about my only published book in the 1990s: *Hallingskarvet: How to Have a Long Life with an Old Father* (1995). The main title is the name of a great Norwegian mountain; the subtitle refers to my personal relationship with the mountain. Already at age ten, I looked upon this mountain as being like a wise, benevolent father, but also as a supreme place to live. (My own father died when I was about a year old.) I found in this place an outline of my *mythopoetic life vision*. Many others, I suspect, are today creating such valuable myths of their own. I hope my writings encourage them. If so, these works will serve a useful purpose. So, finally, I am at the end of this written narrative. I invite readers to find their personal paths through this varied and multidimensional terrain of my writings. Follow your own wild passionate feelings.

Arne Naess

2004

Reason, Democracy, and Science

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

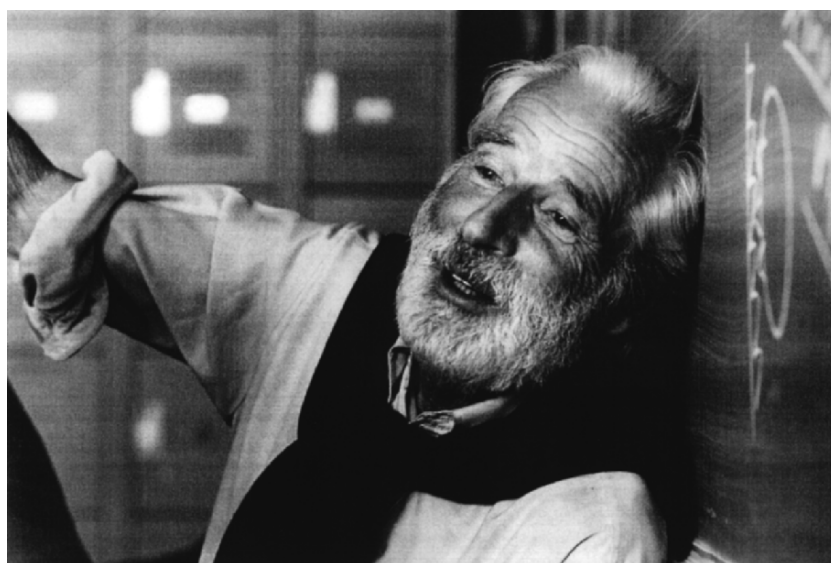
Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews
Selected Papers

Edited by Harold Glasser and Alan Drengson
in Cooperation with the Author

VOLUME IX

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>Series Editor's Introduction</i>	<i>ix</i>
<i>Author's Introduction to the Series</i>	<i>lv</i>
<i>Preface by Alan Drengson</i>	<i>lxi</i>
<i>Author's Preface</i>	<i>lxix</i>
I. Democracy, Ideology, and Rationality	1
1. The Function of Ideological Convictions	3
2. Analytical Survey of Agreements and Disagreements	29
3. Ideology and Rationality	91
II. Philosophy of Science	101
4. Science as Behavior: Prospects and Limitations of a Behavioral Metascience	103
5. A Plea for Pluralism in Philosophy and Physics	123
6. The Case Against Science	145
7. On the Structure and Function of Paradigms in Science	165
8. Why Not Science for Anarchists Too?	175
III. The Philosophy of Peace and Gandhian Ethics and Communication	187
9. Nonmilitary Defense	189
10. Can Violence Lead to Nonviolence? Gandhi's Point of View	203
11. Consequences of an Absolute <i>No</i> to Nuclear War	217
IV. Spinoza	233
12. Is Freedom Consistent with Spinoza's Determinism?	235
13. Through Spinoza to Mahāyāna Buddhism or Through Mahāyāna Buddhism to Spinoza?	255

CONTENTS

14. An Application of Empirical Argumentation Analysis to Spinoza's <i>Ethics</i>	277
15. Spinoza's Finite God	285
16. Einstein, Spinoza, and God	291
 V. Philosophical Development, Environment, and Education	 299
17. How My Philosophy Seemed to Develop	301
18. Deep Ecology and Education: A Conversation with Arne Naess	317
 <i>Notes</i>	 333
<i>References</i>	353
<i>Index</i>	361

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he

has witnessed the most significant loss of cultural diversity and the onset of what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bioregionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cul-

SERIES EDITOR'S INTRODUCTION

tural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of “fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess's philosophical palette, not the "world" of his own consciousness as has become the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our

SERIES EDITOR'S INTRODUCTION

experience of the world is made up of gestalts. “[This] is the world we experience. Nothing is more real.”⁴ People create abstract structures to reflect on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess’s parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess’s “ontological realism” as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of “reality is one” plays a central role in the mature Naess’s approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality’s concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. “As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence.”⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess’s perspective, such accounts by themselves are merely a sign of cultural poverty. “God” could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess’s gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as “the social construction of

nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any "natural" tendencies toward anthropocentrism. As with Leopold's Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we "see" reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess's hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples' (or other life-forms') opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess's own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, "For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape."⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced

SERIES EDITOR'S INTRODUCTION

by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

SERIES EDITOR'S INTRODUCTION

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept

SERIES EDITOR'S INTRODUCTION

the premise “For every decision we, explicitly or implicitly, take all things into consideration,” then the notion of total views or total normative systems can be seen as very “useful fictions,” which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definite-

ness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. “We have all read it. We *still* cheat in argumentation, but now with feelings of guilt.”¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as “truth,” “democracy,” and “private enterprise.” . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

SERIES EDITOR'S INTRODUCTION

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly pro-

SERIES EDITOR'S INTRODUCTION

lific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of

SERIES EDITOR'S INTRODUCTION

land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a “great idea” without Doug’s generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of environment should not, in Naess’s view, play a pivotal role in shaping a budding philosopher’s development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess’s philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess’s principal writings. As such, the *Selected Works* is the definitive repository of Naess’s oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess’s philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded,
and should follow his questions wherever they lead.

Arne Naess, “Norway”

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the

SERIES EDITOR'S INTRODUCTION

unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He

SERIES EDITOR'S INTRODUCTION

loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for “collecting” and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family’s little “wilderness” before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother’s small mountain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours’ walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza’s *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess’s desire for a broad and open perspective, for seeing things in totalities (god’s-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth’s biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potentially influence his approach to philosophy.

Arne’s youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School’s first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others.

SERIES EDITOR'S INTRODUCTION

During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way" —*sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical gram-

SERIES EDITOR'S INTRODUCTION

mar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of

knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather “witness” science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality (“maze epistemology”), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess’s interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess’s 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers’ intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related

SERIES EDITOR'S INTRODUCTION

these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as *"Truth" as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's "Common Sense and Truth" (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Ustaoset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created "institutes" of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into re-

SERIES EDITOR'S INTRODUCTION

search and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi’s catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi’s idea of trying to meet one’s opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war, Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO’s requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy*’s richness, diversity, and multiplicity of

SERIES EDITOR'S INTRODUCTION

meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess’s “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess’s empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess’s frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO’s plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess’s research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his

philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or im-

SERIES EDITOR'S INTRODUCTION

plied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last

group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation and Preciseness*, to argue that it is an illusion to assert that combined scientific and philosophical or "purely" philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN

SERIES EDITOR'S INTRODUCTION

IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V), was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), “Seek complete self-realization” and “Seek truth,” and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of “Self-realization!” as

the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical struc-

SERIES EDITOR'S INTRODUCTION

ture, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions taken earlier. Volume VIII includes sections on "Empirical Semantics and Truth," "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has

SERIES EDITOR'S INTRODUCTION

more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion, and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or

SERIES EDITOR'S INTRODUCTION

limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as “inventing” deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas’s 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson’s *Silent Spring*. Naess’s work on “deep ecology” can be subdivided into three main thematic areas.³⁰

What I refer to as Naess’s deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess’s general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work entering into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back

to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of "philosophical stupor," in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The "shallow," currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The "deep" approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach's proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans' special capacities for reason and moral consciousness come special responsibilities, particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the

SERIES EDITOR'S INTRODUCTION

Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-

evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only

SERIES EDITOR'S INTRODUCTION

who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy) make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally

than usual, rendering *praeclara* as “very clear” rather than the typical “excellent.”³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess’s distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this approach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people’s conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

SERIES EDITOR'S INTRODUCTION

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manuscripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and re-

SERIES EDITOR'S INTRODUCTION

ceive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface.

SERIES EDITOR'S INTRODUCTION

George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mul-

SERIES EDITOR'S INTRODUCTION

vaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible "work fairies" that were constantly pulling me back to my office don't actually exist. I can't wait.

Most of all, thanks to Arne Naess for placing his trust in me—it's been

SERIES EDITOR'S INTRODUCTION

a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora's box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne's writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder's "Axe Handles." The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five

SERIES EDITOR'S INTRODUCTION

hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

SERIES EDITOR'S INTRODUCTION

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.
6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.

SERIES EDITOR'S INTRODUCTION

8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher

SERIES EDITOR'S INTRODUCTION

Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.

SERIES EDITOR'S INTRODUCTION

24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhi's Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecology approach to ecophilosophy," the "deep ecology movement," and Naess's

SERIES EDITOR'S INTRODUCTION

"Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was

AUTHOR'S INTRODUCTION TO THE SERIES

"A philosopher." In fact, I had already conceived of myself as one. I viewed the writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that "What do I mean?" is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these "ordinary" people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems

AUTHOR'S INTRODUCTION TO THE SERIES

discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my

AUTHOR'S INTRODUCTION TO THE SERIES

knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclination very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

AUTHOR'S INTRODUCTION TO THE SERIES

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II),

AUTHOR'S INTRODUCTION TO THE SERIES

The Pluralist and Possibilist Aspect of the Scientific Enterprise (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity, attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Preface

by Alan Drengson

The breadth of subject matter in these eighteen essays by Arne Naess is apparent from the first four section titles: (1) Democracy, Ideology, and Rationality, (2) Philosophy of Science, (3) The Philosophy of Peace and Gandhian Ethics and Communication, and (4) Spinoza. Then, in the final two essays in this volume, Naess explicitly relates the scholarly pursuits of his professional life to larger practical issues about which he cares deeply. The first piece in section 5 (originally published in 1983) gives us an overview of Naess's philosophical development throughout his career as a scholar, educator, and social activist, beginning with his first reading of Spinoza while still in high school. In the second piece ("Deep Ecology and Education," first published in 2000), he describes how he became a leading spokesman for the international deep ecology movement.

The close connection between Naess's scholarly work and his wide-ranging social and environmental concerns can be discerned throughout this volume. In section III, for example, Naess discusses the relevance of his work on Gandhi and nonviolent resistance to the peace, social justice, and ecology movements. (SWAN V, *Gandhi and Group Conflict*, is devoted entirely to Gandhi's philosophy of nonviolent activism.) Over his long life as an active scholar, philosopher, and mountaineer, Naess has applied his scholarly knowledge and research skills to furthering the main principles of the grassroots movements that aim for social justice, an end to war, and the nonviolent resolution of disputes. A nonviolent stance in our relations with the natural world is supported by the movement for deep ecological responsibility. For all these movements, nonviolence in language use is of uppermost importance for positive communication. Naess has always been strongly motivated to work for positive understanding and better commu-

nication. He is not a pure theoretician but rather tries to solve practical problems in relationships through Gandhian communication and improved clarity. Both in his methods of teaching and in his philosophy of education his aim has been to empower people confidently to develop and articulate a personal philosophy of life based on their ultimate values and view of the world (see chapter 18). This, he believes, is part of being a well-integrated person with a sense for the world as a whole. In logic and argumentation courses, he aimed to empower students to reason well, to state their views clearly, and to help others clarify their own views. These methods and aims make congenial learning and research possible.

Much of Naess's energy has gone into promoting greater clarity and better understanding through improved communication and education. Issues of communication and interpretation came together in his first major work (SWAN I). Helping him to advance this work were the lessons Naess learned in the 1930s from participating in the discussions of the Vienna Circle (chapter 17). Circle members showed him that philosophical and research undertakings are not necessarily adversarial but can be based on mutual respect and cooperation. In much the way that researchers work cooperatively to unearth fossils (Naess worked on a dig in North America), philosophers can work together to understand better the exact nature of human disputes and conflicts resulting from failures in understanding that, in turn, result from failures in communication. Interpretation is always involved when we use language, written or spoken, and the various interpretations necessarily exhibit personal features, colored as they are by cultural differences and unique personal experiences.

From his earliest days as a professional researcher, Naess has held in high regard the abilities of ordinary people (chapters 17 and 18). In his studies of *truth* as defined by experts and by ordinary people, he found that the nonexperts managed to come up with all the views articulated by the experts—and some others as well. In talks with Noam Chomsky and other theoreticians of language and philosophy of language, Naess found that their interests were primarily focused on syntactics, generative grammar, and theories about language that were not directly applicable to reducing conflicts and avoiding misunderstanding. They were working out details of abstract theoretical knowledge. In contrast, he favors looking in depth at what people actually say and do with respect to important central concepts

such as *freedom* and *democracy*. In that way, we can improve understanding in a wider context.

Naess has sometimes described himself as a wandering seeker (zetetic) of truth, knowledge, and wisdom (see, for example, SWAN II and VIII). His approach to philosophy is Spinozan in that he looks for the applied, daily-life implications of his philosophy of life and his global vision. Reading Spinoza for the first time when he was seventeen, Naess was inspired to try to articulate his own worldview and philosophy of life. He appreciated the way Spinoza articulates his grand vision by means of geometric exposition aimed at leading the reader to the same unitive insights and intuitions that Spinoza himself had about the integrity of our whole experience (see, especially, chapters 12, 15, and 16, “Is Freedom Consistent with Spinoza’s Determinism?,” “Spinoza’s Finite God,” and “Einstein, Spinoza, and God”).

Spinoza’s discussions of emotions and freedom are central in Naess’s interpretation of the *Ethics*. Unlike most Spinoza scholars, Naess thinks these qualities not only lie at the core of Spinoza’s philosophy of life but are of great practical importance in the modern age. Spinoza teaches a way of life that is joyful. His teachings on feelings are close in spirit to some of the great philosophies of life from the East, such as the form of Buddhism that Naess discusses in this volume (chapter 13, “Through Spinoza to Mahāyāna Buddhism, or Through Mahāyāna Buddhism to Spinoza?”). Spinoza’s emphasis on active, positive emotions as a way to freedom also sheds light on the life-denying features of negative, passive feelings. For Naess, Spinoza is a philosopher who sees life whole and, moreover, is able to sketch his total view through carefully defined terms and axioms expressed in Medieval Latin (chapter 14, “An Application of Empirical Argumentation Analysis to Spinoza’s *Ethics*”). Naess’s appreciation for the complexities and depth of Spinoza’s texts leads him to the recognition that there cannot be a single definitive interpretation of those texts. Like so many philosophical (and other) texts, they are rich and deep in possibilities that even the author himself did not fully recognize. As Naess points out, texts do not usually have a guide that explains how they are to be read and interpreted—and even if they had such a guide, the guide would have to be interpreted.

A reading of all the papers in this volume allows one to pick up the main themes that run through Naess’s ways of writing, researching, and thinking. He regards our spontaneous, uninterpreted experiences of the

world as far richer than we can ever express in any language (chapters 17 and 18). When we learn our native languages, and then specialized ways of symbolizing our thoughts and feelings, we are able to produce texts that become artifacts with a narrative life of their own. They become part of a body of literature with criticism and commentaries. This is true on many levels and for many types of documents used in a variety of settings, from constitutions and treaties to manifestos and political propaganda. Even when people come from the same culture and speak the same language, there can be widespread disagreement about how to read such documents, just as there are with religious and philosophical writings. Within a single tradition differences exist, for example, between spoken language, literary or poetic writings, and scientific textbooks. Often, too, there are contexts and specialties devoted to interpretation of key documents: court decisions, legislation, and the like. When cultures having different languages and histories, plus different religions and worldviews, encounter each other, these interpretive differences can increase exponentially. Under such circumstances, difficulties in understanding can easily develop. People sometimes feel threatened by worldviews they see as competing with their own values, and they cannot make sense of what their perceived opponents are saying. The result can be open conflict, escalating violence, or even widespread war (see, for example, chapters 1–3, “The Function of Ideological Convictions,” “Analytical Survey of Agreements and Disagreements,” and “Ideology and Rationality.”).

During the Cold War enormous tension developed between the Eastern Soviet Bloc and the West. Politicians in the West asserted that the Soviet system was not a democracy as there was no freedom of press, expression, or religion within its sphere of control. Some key Soviet documents, however, seemed to favor freedom and democracy. Naess compared how certain key terms were used by Russian writers (see his discussion of Zaslavski’s texts in SWAN I) and how the same terms were used by authors in the West. Later, he took part in an ambitious study funded by UNESCO to find out exactly what different people—experts, policymakers, and others—thought about key concepts such as *freedom* and *democracy* (chapter 2). Eastern and Western experts and policymakers were polled by means of questionnaires and documents on which they were asked to comment.

Naess’s UNESCO research showed that no clear consensus about these

matters existed in either camp. Neither side, it turned out, exhibited very much internal agreement. This research was undertaken using a methodology that Naess had helped pioneer in earlier studies of scientists doing science and of what experts and nonexperts think about *truth* (SWAN VIII) and intrinsic values in Nature (SWAN X, chapter 18). The methods developed and used were part of his engagement in empirical semantics (see also SWAN I, VII, and VIII), a descriptive discipline that attempts to understand how language functions in everyday life, in various academic and other specialties, and cross-culturally. While other philosophers were assuming they knew what ordinary people meant by various words, Naess decided that we should observe and ask questions. When others speculated on how science is actually done, in their attempts to clarify what science is, Naess conducted empirical research by observing experimental psychologists working with rats. (Naess himself had also done experimental research with rats; see chapter 17.)

In using Naess's approach, one soon learns that the actual practice of science is considerably more diverse than would appear from reading textbooks about science. In texts about science, we are given to understand that there is consensus, that all scientists more or less think and do the same things. Naess shows that the idea of a specific scientific worldview, complete with all the *it*'s crossed and *is*'s dotted, does not follow either from historical studies or from observations of the current state of science in the West. Moreover, the historical studies of science in the differing traditions of East and West lead us to identify an even greater diversity of views regarding how the world is to be understood and related to, and how human beings should value and work with it.

Science as open inquiry is based on the integrity of individual researchers (chapter 5, "A Plea for Pluralism in Philosophy and Physics"). One could say that in this sense it is a democratic undertaking, since people and communities should be free to make their own observations of how things happen in their own places. In modern industrialized societies, however, science has become a professionalized enterprise, a place or cult for the expert and specialist (chapter 6, "The Case Against Science"). In addition, special interest groups and government policies strongly direct scientific undertakings in the industrialized world, funding or not funding research according to their own priorities. As we know from much experience, sci-

ence as an enterprise has not always worked to further freedom, nonviolence, and democracy (for more on this, see SWAN IV).

The modern approach to science, pursued after 1550 in the West, is unique in the emphasis it places on prediction and control and in its development of highly specialized disciplines that fragment our knowledge of the world. The world, Naess has always felt, is one. Reality is one, but it is multifaceted and there are endless ways to describe it. One of the important lessons learned from the study of global ecosystems is that human cultures are interacting parts of these systems and, as such, should not be thought of as outside them (chapters 17 and 18).

Beginning early in his life, Naess's approach to open inquiry has combined all his interests with a desire to articulate his total view using all forms of knowing and experiencing, all types of methods and experiments, always guided by a philosophy of nonviolence and respect for individuals. He has distilled the values at the core of his personal philosophy into a single fundamental norm, "Self-realization!" which he then expanded to "Self-realization for all beings!" (chapter 17). He became aware early in life that we have a sense for the wholeness and unity of the world that comes from our undivided spontaneous experience of it as we are fully in it, such as while wading in the sea or walking in a mountain meadow. For all of his adult life Naess has been an alpine mountaineer, a follower of Gandhi, and a wandering seeker who decided early on that it was his life's calling to be a philosopher in Spinoza's way.

Throughout the essays in this book, we see evidence of Naess's wide-ranging interests as well as his commitment to open inquiry and nonviolence. He strives to be inclusive and generous. In all his undertakings he tries to bring about better communication and understanding by using a variety of methods. He feels that it is a sign of maturity when we appreciate diversity on *every* level, from personal to cultural. As Spinoza said, the more we know about the world, the greater our appreciation for the way things are, and then we realize that our smallness is a way of being in tune with God, or the ultimate. Our freedom is found through deeper understanding and through emphasizing positive active feelings (chapter 12, "Is Freedom Consistent with Spinoza's Determinism?"). Deep understanding depends on nonviolence, even in attitude. When we sit quietly in a meadow or a tidal pool, the lives around us return to normal.

Another realization that came to Naess early in life was that he did not want to become a specialist. He wanted to understand how the world hangs together and what the most important values are for having a meaningful and joyful life. He found his joy in mountain climbing and in the search for interdisciplinary knowledge, communication, and understanding. These have distinguished his career. Through his empirical and logical studies he came to appreciate that there are no value-free inquiries. All knowledge pursuits are value-laden; even pure logic assumes certain values, such as consistency. Comprehensive knowledge leads to understanding, and each of us acts *as if* we had a total view, even if we cannot articulate it very well. The better we understand and can articulate our own total view, the more confidence we have and the better we can communicate with others about our thoughts, feelings, and values.

Naess has devoted considerable effort to clarifying and exploring normative systems and qualitative evaluations of experience and the world. In his youth he loved math, logic, and other quantitative subjects. As he grew older he realized that the Earth's material resources are limited and that we must put a cap on material consumption. In the domain of quality of life and deep experience, however, there are great possibilities for endless expansion. For example, there are countless ways to appreciate beauty in the world. Even if we only improved the quality of our immediate relationships at home, our life quality could rise enormously. There are so many ways to find joy in the smallest things in the world around us that science can be a wonderful undertaking at any age. Science and philosophy should not, in Naess's view, be the special province of adult experts; they should be open to everyone. We can develop and use all sorts of ways to learn more about the world and life, about values and quality of experience, provided we exercise our creative imaginations, are willing to apply ourselves, and are willing to act freely with an open mind. As a wandering seeker Naess searches for knowledge and truth. He states his ultimate values and assumptions about the world, but he never claims to have the one defining right view. He encourages others to state theirs and he finds joy in this diversity.

Even when the great pluralism of worldviews, cultures, and ways of doing science seem inconsistent with one another, conflict can be avoided. (These issues are raised in chapters 5, 7, and 8, "A Plea for Pluralism in Phi-

losophy and Physics,” “On the Structure and Function of Paradigms in Science,” and “Why Not Science for Anarchists Too?”) Just as we learn to live with inconsistencies in our personal lives, so we can come to appreciate the cultural, religious, and philosophical diversity on Earth as akin to the biological, ecological, and individual diversity found throughout the natural world. Naess shows by his example that appreciating this diversity can lead to a sense of unity on a global scale, since with maturity and wisdom we realize that diversity is life’s way of creating energy. Acting in generous and beautiful ways by giving more to the Earth than we take (chapter 18), more to our community than we take, and more to future generations, we can help to build a world without war, with ecological sustainability and social justice, and yet with diverse cultures. (On the end to violent conflicts, see chapters 9 and 11, “Nonmilitary Defense” and “Consequences of an Absolute *No* to Nuclear War.”)

One key to peace is a better understanding of the nature of languages as they are actually used. How do they shape the lives, feelings, and thoughts of people in different cultures around the world? This study, as exemplified by Naess, leads us away from dogmatism, from thinking our way is the only way. We realize that there are many wonderful possibilities for creating ever greater diversity with sustainable cultures of place. Unfortunately, there are forces working against this deep movement under the guise of a globalization that aims to control other nations as a first step toward turning them into modern Western consumer societies. Naess has worked to realize other possibilities, among them the combination of localization with international cooperation for global concerns (chapters 17 and 18). He welcomes thriving vernacular cultures that preserve the integrity of the natural world in their home places. He also stresses the importance of international cooperation with commitment to principles cutting across cultural boundaries, such as the platform principles of the deep ecology movement. He has shown a way for reason, democracy, and science to flourish in freedom and diversity.

Author's Preface

Reflections on My Papers and the Selections in SWAN VIII–X

During my active life as a researcher and author, I have published far too much to be a polished writer. I have a long practice of working a set number of hours each day, and at ninety-two I have lived a long life. I hold to this even when I live in my mountain hut, Tvergastein. Over the years I have carried in many precious big reference books to put in its “library.” Writing philosophy in the hut, while looking over a vast mountain and alpine landscape, gave me a different feeling and perspective than when working in my office at the university or in my study at home. Each setting is very different and seems to bring out different aspects of the same subject and of myself. There are also the differences in dialect and local customs that fed my search for an ever more complete total view. To me this diversity is good to appreciate for its own sake. Writing, like teaching, is a way to find out things rather than just a dull report on the past. Writing philosophy for me is an ongoing project, a kind of meditation; in a sense, it is something that I must continue daily, because I continue to have more and more gestalts integrated into my total view with feelings of wholeness.

I never regarded the papers or even the books I wrote to be final drafts, but always works in progress, since my life, philosophy, and worldview are all in an ongoing process of change. Altogether, I have probably written thirty or so books published in various languages, and some in several languages. I have had many coauthoring adventures. There are manuscripts of books started but still in progress. I probably have some finished but unpublished book manuscripts. In the area of smaller-scale publications and writings, there are many kinds of pieces from very short to very long—for example, short reviews, long reviews, discussions, definitional pieces, long

AUTHOR'S PREFACE

single-subject essays, historically oriented papers, formal logic pieces, empirical studies, studies of conceptual systems—pieces on so many different subjects that I am somewhat embarrassed by my lack of attention to other things. I almost always write with passion but am not so keen to keep detailed records of my scholarly research, and at Tvergastein these resources are limited.

I have hundreds of manuscripts of articles, reviews, and other nonfiction pieces in my collection. The SWAN project has been a wonderful undertaking because it helped me to get my works organized to be more accessible to a larger audience. My dear wife, Kit-Fai, has been so good to my work that I can only describe her acts as beautiful. She, along with Harold Glasser, Alan Drengson, and others, plied me with endless questions about my works and individual pieces, for references, for greater clarity, for a better organization in time, and so on. The result is an assemblage of more than seven hundred published and unpublished papers.

We were choosing books to publish and papers for the anthologies of my selected works in English. We settled on seven books to be republished as the first seven volumes in the SWAN series. After some discussion with others, we decided to have three volumes of my papers for a total of ten volumes. We pondered what to include in the anthologies of papers and how to organize them. The result is a collection of writings that is a very deep and broad representation of the large number of papers of my work. The first two volumes are devoted to all the subjects I have worked on, from earliest to latest. These collections (SWAN VIII and IX) are organized in thematic sections somewhat chronologically. We decided to devote the third collection to my writings on deep ecology, because they are the most complete example of a total view that I have been able to offer.

Deep Ecology of Wisdom (SWAN X) is in many respects the most complete volume in the series in that it shows the total sweep of my work. It shows how my comparative and ecological inquiries brought together all my interests and studies. It was also a natural place for me to apply empirical semantics guided by a personal mythology, an undertaking that in the 1990s was offered in my book *Hallingskarvet: How to Have a Long Life with an Old Father*. The Tvergastein article in SWAN X (chapter 33) is an example of the philosophical, empirical, and semantic studies that were saturated with this place through time. SWAN X also includes a comprehensive bib-

AUTHOR'S PREFACE

liography of my works in English, which gives readers the most direct access to this whole body of work. Everything in my work is represented, from Spinoza's philosophy on emotions and Gandhian nonviolent communication, to essays on ontology and mountaineering. All of my work comes together in SWAN X. Readers will see the role of my desire to further nonviolent communication and my scepticism about there being only one worldview that is "true." These reflect my love of diversity.

I have mountain perspectives on worldviews. So many of them are beautiful and so suitable to their places! It is a wonder for me to behold this creative diversity. I found the same on the ground around my hut in the extreme mountain arctic conditions there. Even there, worlds within worlds! In that setting, life energies and mysteries are ever present. I came to approach all research from philosophy to ecology as if I were a field naturalist. This is reflected in my writings. Writing for me is a process of creation, discovery, and systematization; an art that helps me to assimilate and be whole with the more I see, as time goes on, from so many different perspectives. A synoptic view, almost holographic, emerged in my writings in many places. Traveling a lot added to learning these things.

Questions of meaning, preciseness, and interpretation are central to all that I do. We greatly underestimate ourselves in relation to our capacities, but we also greatly overestimate (violently at times) the seeming importance of disagreements over words that are frankly not very precise. The very effort to become more precise is itself an enlightening process that, once started, continues with a natural flow on its own. It is a settled practice that flows through my writing. Gandhian nonviolent communication also runs through my daily writings and practices; it is a second nature. My writings are active engagements, and for this reason I do not find them boring or painful. It is a joy to write about these many subjects that have engaged my passionate interest, especially in relation to the natural world.

Readers of these three volumes of selected papers who want to see my work in a more or less organic way that is roughly historical should read these papers in order, SWAN VIII through X. Those who want an overall look at my whole program of research, writing, and lifestyle should first read volume X. They could also read the last two chapters in SWAN IX, "How My Philosophy Seemed to Develop" and "Deep Ecology and Education: A Conversation with Arne Naess."

AUTHOR'S PREFACE

I have been reflecting on my writings and the way I approach and feel about this work. Let me say something about the different research hares I have chased and the lesser peaks and major mountains I have climbed in the process. I will do this by focusing on a recent ten-year period, from 1987 to 1997.

What has made me eager over the decades to continue writing articles in such great numbers? My spontaneous answer is that these are important questions not only for me but also for everything that it is worthwhile to sustain or develop further. By chance, this very sentence exemplifies a question of this kind: what is meant by “not only for me but . . .” and who is the “me” here? Among such questions there are some to which, as an optimist, I feel I can still contribute. These questions fall into two categories: those related to the ecological crisis and those philosophical questions far away from the ecological crisis. Writing for me is a series of adventures that are part of a larger mythopoetic nature narrative.

I thought that in recent decades the environmental crisis articles would make up the majority of my papers during this time, but to my astonishment that is not the case. For example, in the five years from 1991 to 1995, 61 percent of the articles published [by 1997] deal with general philosophical issues, and 68 percent of the unpublished ones are of that kind. Some of the articles are short, only five pages, which in part explains the large number of articles—78 published and 130 unpublished—during this time. I do very little to get my articles published.

One of the philosophical articles has the title “We need philosophies as life- and worldviews.” Many articles, some used in lectures in various parts of the world, deal with what I hope will characterize university philosophy in the twenty-first century: addressing central questions of what constitutes a meaningful life, diversity of cultures, and the nature of reality. Who are we, where are we, and what do we want most? The last question concerns value priorities. University philosophy, *not* the philosophy of “the man in the street” or of writers in general, has been centered on our talk itself, not on what we talk about. It is often talk about talk. The latest fad has been to stop talking about the variety of conceptions of the world in favor of talking about what are called social constructions, just to mention a focus different from life philosophy and worldviews. (Is nature a big *social* construction?) Clearly, as soon as we start *talking* about anything, for example,

about what is “talk,” what is “social,” and what is a “construction,” we are using a *social* creation, *intersubjective* talking. This does not undermine our excellent, direct relations to the matters we talk about and, I am glad to say, have different views about, some of which are quite personal and individual.

I will not bother to explain all the approaches I have taken within the philosophical sphere. I shall only offer some hints. In ethics I have taught, lectured, and written on the conception of being a “traitor,” a word applied to tens of thousands of Norwegians who in different ways were “on the wrong side” during the Nazi occupation of Norway by Germany. Many who did not deserve it were put in prison. Many believed that Hitler would win the war and that the continued independence and freedom of Norway depended on maintaining good relations with the occupying power.

Norway twice has said “No thank you!” to joining the Common Market, now called the European Union. I have written against joining on the basis of a philosophy that favors cultural differences. The EU is a big step in the direction of economic globalization, a formidable obstacle to cultural integrity and diversity. Some call this effort of mine “applied philosophy,” and I agree.

I have called a class of life- and worldviews *Spinozistic*, and my own view belongs to this class, but that does not *imply* accepting as true or valid any of Spinoza’s axioms and theorems. A long series of my articles deal with Spinoza, especially the central position of strong active emotions as a requirement for increasing our freedom and power, a rather un-Western view! I have explored and written about many Eastern philosophies, including Indian and Chinese. Some of my articles compare Spinoza’s views with Buddhist philosophies.

Gandhian studies continue with what I call the “principles of Gandhian communication,” a form of strict nonviolence. The role of the mass media in tough conflicts makes fairness of central importance. Treatment of an opponent as a fellow human being must be without blemish, even when his views seem to be, or are, horrible, despicable, and idiotic—and even if he is a mass murderer. This treatment is *compatible* with the expression of a strong and honest rejection of the views and actions of an opponent.

Felt suffering has been an important theme in my papers for many years. There is a strange, socially and politically important underestimation of acutely felt suffering and an overestimation of a quantified but not necessar-

AUTHOR'S PREFACE

ily *felt* suffering. If by chance a hundred people living distant from one another simultaneously suffer from a slight headache, this multiplicity of persons does not make the felt suffering stronger. I am deeply interested in the quality, the *feelings* of strong suffering, not some “abstract sum” of suffering.

Suppose we have a chance either to rescue a person from continued, systematic torture or to diminish the slight pain of a million people. As I see it, the choice is ethically unproblematic: rescue the tortured person! Politically, the implication is clear: much greater effort is needed to help people in certain extreme conditions. This, of course, cannot be done without angering dictators. What I call the *intensity principle* in dealing with suffering is generally not considered valid, and the possibility of saving people from continued torture is judged to be very small. As I see it, the problem is that usually only conventional means are considered. We need people with imagination, people like those who rescued thousands of tortured persons during the Second World War and the occupation.

As a philosopher influenced by analytic philosophy and an admirer of mathematical physics, cosmology, and pure mathematics, I regarded the one-hundredth jubilee (1991) of the birth of Rudolf Carnap and Hans Reichenbach as an opportunity to rethink my opposition to their philosophical standpoints and to logical positivism in general. I deeply respect their work, and especially their clearness in the matter of premise-conclusion relations. I have worked hard with a normative system that has only one ultimate normative premise, “Self-realization!” It is a result of the influence of my studies in logic and formal systems. In their work, the logical positivists encouraged each other, discussed with fairness, and used each other’s insights. They were not afraid of real disagreements. This is very unusual in intense philosophical discussions! I try to be fair and cooperate in discussions with my critics in social ecology and ecofeminism.

Going back to the five years from 1986 to 1990, I see that my papers are colored by contributions to the deep ecology movement. There is, however, a notable exception in my writings: what I call *gestalt ontology*. Ontology is an old branch of philosophy that tries to characterize what is real compared to what only appears to be real. Might a birch be bright green and joyful, or is it *really* colorless? Is joyfulness perhaps only a “projection” of joy being felt by an observer? Very roughly, my answer is that *spontaneous experiences* are direct experiences of something real. Joyfulness is

on a par with tallness and specific weight, when we only talk about pure realness. The experiences have a gestalt character. They are complex wholes, not merely atomistic.

The focus on spontaneous experience may be of positive value for deepening and intensifying positive experiences in nature. This focus also accepts the status of negative experiences. If, for example, a city dweller exclaims "Horrible, threatening" when suddenly facing a large waterfall, it is inappropriate to counter with the assertion "You are mistaken. It is really beautiful!" As to the character of being threatening, one might say that it would be a mistake to predict that the water will engulf us. This is just what gestalt ontology says. We can even have a slightly different version; it leads into rather professional philosophical terminologies. Its main thrust radically undermines the claim that only the exact physical sciences show us what is real. On the contrary, they increasingly focus on extremely *abstract structures* of what is real and do not, as sciences, describe any *concrete contents*.

As an outline of my work (from 1987 to 1997), the above gives a rough picture that is a fair description for earlier periods. I should perhaps add a word about my only published book in the 1990s: *Hallingskarvet: How to Have a Long Life with an Old Father* (1995). The main title is the name of a great Norwegian mountain; the subtitle refers to my personal relationship with the mountain. Already at age ten, I looked upon this mountain as being like a wise, benevolent father, but also as a supreme place to live. (My own father died when I was about a year old.) I found in this place an outline of my *mythopoetic life vision*. Many others, I suspect, are today creating such valuable myths of their own. I hope my writings encourage them. If so, these works will serve a useful purpose. So, finally, I am at the end of this written narrative. I invite readers to find their personal paths through this varied and multidimensional terrain of my writings. Follow your own wild passionate feelings.

Arne Naess

2004

Deep Ecology of Wisdom

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

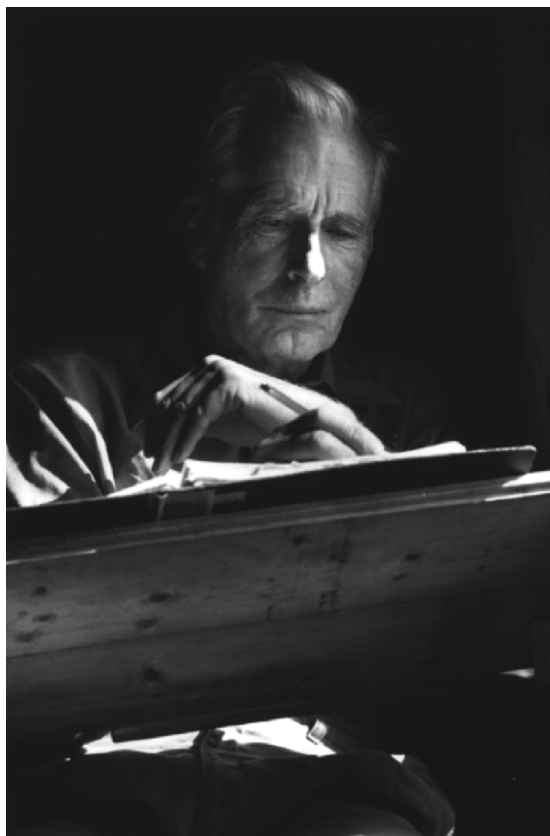
Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures
Selected Papers

Edited by Harold Glasser and Alan Drengson
in Cooperation with the Author
and with Assistance from
Bill Devall and George Sessions

VOLUME X

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)
ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved
© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>List of Figures and Tables</i>	<i>xi</i>
<i>Series Editor's Introduction</i>	<i>xiii</i>
<i>Author's Introduction to the Series</i>	<i>lix</i>
<i>Preface by Bill Devall and Alan Drengson</i>	<i>lxv</i>
<i>Author's Preface</i>	<i>lxxiii</i>
I. The Long-Range Deep Ecology Movement	1
1. Nature Ebbing Out	3
2. The Shallow and the Deep, Long-Range Ecology Movement: A Summary	7
3. The Basics of Deep Ecology	13
4. Deepness of Questions and the Deep Ecology Movement	21
5. The Deep Ecology Movement: Some Philosophical Aspects	33
6. The Deep Ecology "Eight Points" Revisited	57
7. Equality, Sameness, and Rights	67
8. The Breadth and the Limits of the Deep Ecology Movement	71
9. The Apron Diagram	75
10. What Do We as Supporters of the Deep Ecology Movement Stand for and Believe In?	83
11. A Note on the Prehistory and History of the Deep Ecology Movement	89
12. Antifascist Character of the Eight Points of the Deep Ecology Movement	93
II. Values, Lifestyle, and Sustainability	103
13. Deep Ecology and Lifestyle	105
14. The Place of Joy in a World of Fact	109
15. Beautiful Action: Its Function in the Ecological Crisis	121

CONTENTS

16. Should We Try to Relieve Clear Cases of Suffering in Nature?	129
17. Sustainability! The Integral Approach	139
18. Expert Views on the Inherent Value of Nature	149
19. The Arrogance of Antihumanism	185
III. Deep Ecology and Politics	189
20. Politics and the Ecological Crisis: An Introductory Note	191
21. The Politics of the Deep Ecology Movement	201
22. The Three Great Movements	219
IV. Deep Ecology Practices:	
Integrating Cultural and Biological Diversity	227
23. The Encouraging Richness and Diversity of Ultimate Premises in Environmental Philosophy	229
24. The Third World, Wilderness, and Deep Ecology	251
25. Cultural Diversity and the Deep Ecology Movement	263
26. Population Reduction: An Ecosophical View	275
27. Migration and Ecological Unsustainability	283
28. Self-Realization in Mixed Communities of Human Beings, Bears, Sheep, and Wolves	291
29. Philosophy of Wolf Policies I: General Principles and Preliminary Exploration of Selected Norms (coauthored with Ivar Mysterud)	301
30. Deep Ecology and Conservation Biology	325
31. The Tragedy of Norwegian Whaling	329
32. Letter Sent October 1971 to the King of Nepal	335
V. The Significance of Place: At Home in the Mountains	337
33. An Example of a Place: Tvergastein	339
34. Some Ethical Considerations with a View to Mountaineering in Norway	361
35. Modesty and the Conquest of Mountains	365
36. The South Wall of Tirich Mir East	369
VI. Spinoza and Gandhi as Inspiration for Deep Ecology	379
37. Spinoza and Attitudes Toward Nature	381
38. Spinoza and the Deep Ecology Movement	395
39. A Systematization of Gandhian Ethics of Conflict Resolution	421

CONTENTS

VII. Understanding Naess's Unique Approach to Deep Ecology	447
40. The World of Concrete Contents	449
41. Gestalt Ontology and Gestalt Thinking	461
42. Reflections About Total Views	467
43. Notes on the Methodology of Normative Systems	483
44. Paul Feyerabend—A Green Hero?	499
VIII. Theoretical Dimensions of Deep Ecology and Ecosophy T	513
45. Self-Realization: An Ecological Approach to Being in the World	515
46. The Connection of "Self-Realization!" with Diversity, Complexity, and Symbiosis	531
47. Integration of the "Eight Points" into Ecosophy T	535
48. A Note on Definition, Criteria, and Characterizations	537
49. <i>Docta Ignorantia</i> and the Application of General Guidelines	541
50. Ranking, Yes, but the Inherent Value Is the Same: An Answer to William C. French	547
51. The Heart of the Forest	551
52. Metaphysics of the Treeline	555
53. Avalanches as Social Constructions	559
IX. Deep Ecology and the Future	561
54. Sustainable Development and Deep Ecology	563
55. Industrial Society, Postmodernity, and Ecological Sustainability	577
56. An Outline of the Problems Ahead	593
57. Deep Ecology for the Twenty-second Century	611
<i>Notes</i>	617
<i>References</i>	639
<i>Comprehensive Bibliography of Arne Naess's Works in English</i>	651
<i>Index</i>	671

List of Figures and Tables

Figures

1. Ecosophy T	53
2. The Apron Diagram	76
3. The Political Triangle	203
4. The Political Circles	204
5. Cartesian Coordinate System	205
6. The Political Axis	205
7. Normative System Diagram Showing Logical Priorities	309
8. Ecosophy T (repeated)	485
9. Integration of the “Eight Points” into Ecoosphy T	535

Table

1. Summary of Survey Responses	177
--------------------------------	-----

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he

SERIES EDITOR'S INTRODUCTION

has witnessed the most significant loss of cultural diversity and the onset of what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cul-

SERIES EDITOR'S INTRODUCTION

tural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of “fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess's philosophical palette, not the "world" of his own consciousness as has become the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our

SERIES EDITOR'S INTRODUCTION

experience of the world is made up of gestalts. “[This] is the world we experience. Nothing is more real.”⁴ People create abstract structures to reflect on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess’s parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess’s “ontological realism” as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of “reality is one” plays a central role in the mature Naess’s approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality’s concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. “As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence.”⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess’s perspective, such accounts by themselves are merely a sign of cultural poverty. “God” could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess’s gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as “the social construction of

nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any "natural" tendencies toward anthropocentrism. As with Leopold's Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we "see" reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess's hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples' (or other life-forms') opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess's own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, "For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape."⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced

SERIES EDITOR'S INTRODUCTION

by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

SERIES EDITOR'S INTRODUCTION

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept

SERIES EDITOR'S INTRODUCTION

the premise “For every decision we, explicitly or implicitly, take all things into consideration,” then the notion of total views or total normative systems can be seen as very “useful fictions,” which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definite-

ness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. “We have all read it. We *still* cheat in argumentation, but now with feelings of guilt.”¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as “truth,” “democracy,” and “private enterprise.” . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

SERIES EDITOR'S INTRODUCTION

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly pro-

SERIES EDITOR'S INTRODUCTION

lific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of

SERIES EDITOR'S INTRODUCTION

land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a “great idea” without Doug’s generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of environment should not, in Naess’s view, play a pivotal role in shaping a budding philosopher’s development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess’s philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess’s principal writings. As such, the *Selected Works* is the definitive repository of Naess’s oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess’s philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded,
and should follow his questions wherever they lead.

Arne Naess, “Norway”

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the

SERIES EDITOR'S INTRODUCTION

unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He

SERIES EDITOR'S INTRODUCTION

loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for “collecting” and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family’s little “wilderness” before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother’s small mountain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours’ walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza’s *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess’s desire for a broad and open perspective, for seeing things in totalities (god’s-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth’s biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potentially influence his approach to philosophy.

Arne’s youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School’s first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others.

SERIES EDITOR'S INTRODUCTION

During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way" — *sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical gram-

SERIES EDITOR'S INTRODUCTION

mar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of

knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather “witness” science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality (“maze epistemology”), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess’s interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess’s 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers’ intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related

SERIES EDITOR'S INTRODUCTION

these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as *"Truth" as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's "Common Sense and Truth" (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Ustaoset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created "institutes" of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into re-

SERIES EDITOR'S INTRODUCTION

search and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi’s catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi’s idea of trying to meet one’s opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war, Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO’s requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy*’s richness, diversity, and multiplicity of

SERIES EDITOR'S INTRODUCTION

meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess’s “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess’s empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess’s frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO’s plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess’s research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his

philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or im-

SERIES EDITOR'S INTRODUCTION

plied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last

group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation and Preciseness*, to argue that it is an illusion to assert that combined scientific and philosophical or "purely" philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN

SERIES EDITOR'S INTRODUCTION

IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V), was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), “Seek complete self-realization” and “Seek truth,” and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of “Self-realization!” as

the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical struc-

SERIES EDITOR'S INTRODUCTION

ture, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions taken earlier. Volume VIII includes sections on "Empirical Semantics and Truth," "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has

more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion, and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or

SERIES EDITOR'S INTRODUCTION

limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as “inventing” deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas’s 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson’s *Silent Spring*. Naess’s work on “deep ecology” can be subdivided into three main thematic areas.³⁰

What I refer to as Naess’s deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess’s general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work entering into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back

to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of "philosophical stupor," in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The "shallow," currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The "deep" approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach's proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans' special capacities for reason and moral consciousness come special responsibilities, particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the

SERIES EDITOR'S INTRODUCTION

Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-

evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only

SERIES EDITOR'S INTRODUCTION

who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy) make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally

than usual, rendering *praeclara* as “very clear” rather than the typical “excellent.”³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess’s distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this approach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people’s conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

SERIES EDITOR'S INTRODUCTION

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manuscripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and re-

SERIES EDITOR'S INTRODUCTION

ceive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface.

SERIES EDITOR'S INTRODUCTION

George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mul-

SERIES EDITOR'S INTRODUCTION

vaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible "work fairies" that were constantly pulling me back to my office don't actually exist. I can't wait.

Most of all, thanks to Arne Naess for placing his trust in me—it's been

SERIES EDITOR'S INTRODUCTION

a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora's box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne's writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder's "Axe Handles." The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five

SERIES EDITOR'S INTRODUCTION

hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

SERIES EDITOR'S INTRODUCTION

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.
6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.

SERIES EDITOR'S INTRODUCTION

8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher

SERIES EDITOR'S INTRODUCTION

Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.

SERIES EDITOR'S INTRODUCTION

24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhi's Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecology approach to ecophilosophy," the "deep ecology movement," and Naess's

SERIES EDITOR'S INTRODUCTION

- "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).
31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
 32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
 33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
 34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was

AUTHOR'S INTRODUCTION TO THE SERIES

"A philosopher." In fact, I had already conceived of myself as one. I viewed the writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that "What do I mean?" is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these "ordinary" people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems

AUTHOR'S INTRODUCTION TO THE SERIES

discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my

AUTHOR'S INTRODUCTION TO THE SERIES

knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclination very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

AUTHOR'S INTRODUCTION TO THE SERIES

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions

AUTHOR'S INTRODUCTION TO THE SERIES

for improving the readability of the first editions of *Scepticism* (SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity, attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Preface

by Bill Devall and Alan Drengson

Arne Naess is a mountaineer, activist, teacher, scholar, philosopher, and national hero in his native Norway. When he attended the famous Vienna Circle discussions during the 1930s, he was impressed by the compassion and assistance that members of the circle gave to one another. During that time he also began studying Gandhi's nonviolent direct action campaigns in India. He later wrote a book (SWAN V) articulating Gandhi's norms of nonviolent direct action.

Born and raised in Norway, where outdoor life, or *friluftsliv*, is part of the national culture, Naess began climbing as a child. As a young man he built a hut high in the mountains, a place he calls Tvergastein. At Tvergastein and at the University of Oslo, he explored the history of Western and Eastern philosophy and also the history, biology, and geology of Mount Hallingskarvet, where his hut is located. At seventeen he started reading Spinoza's *Ethics*. He found in Spinoza's work an inspiring account of emotions that he has explored in his writings and personal experience. His own life's philosophy is called Ecosophy T, as it was born in the mountains at Tvergastein. Naess coined the word *ecosophy* from the ancient Greek words *ecos* for household place and *sophia* for wisdom. An ecosophy is a personal philosophy of life aiming for ecological wisdom and harmony.

The articles in this anthology were written during the decades from the 1960s through 2000. They represent Naess's evolving reflections on the deep ecology movement, diverse ecosophies, and ecophilosophy. He was the first to use the words *deep ecology movement* to refer to the international grassroots ecology movement that is united by a number of platform principles he calls the Eight Points. The first two principles emphasize the intrinsic value of all beings and of richness and diversity in life-forms and

cultures. Some of his main works in semantics, logic, philosophy of science, comparative philosophy, Gandhi, and Spinoza are found in other volumes of the SWAN series.

The theoretical and philosophical underpinnings of Naess's approach to deep ecology are found in this volume in section 7, "Understanding Naess's Unique Approach to Deep Ecology," and section 8, "Theoretical Dimensions of Deep Ecology and Ecosophy T." Readers who are particularly interested in the technical philosophical aspects of his ecophilosophy approach can read those sections before reading his work relevant to public policy issues and lifestyles, which are earlier in the volume, sections 2 and 3. Readers who want to understand his approach to the deep, long-range ecology movement could begin by looking at the "apron diagram" and his explanation of it in section 1, "The Long-Range Deep Ecology Movement."

The broad and representative selection of Naess's articles in this anthology should dispel some of the misconceptions about ecophilosophy and the deep, long-range ecology movement. We hope that new generations of readers, scholars, and ordinary people will appreciate the range and depth of his work. Throughout his career he has advocated what he calls "radical pluralism" and argued that philosophy is not restricted to academically trained philosophers. People in all walks of life, holding vastly different "ultimate norms," that is, different religious and philosophical positions, should develop their own ecosophy and total view. They can apply principles of the deep ecology platform to their lifestyle, politics, social policies, and community. They can better articulate their "sense of wonder" for nature and what they can do to lessen their own impacts on their place and the world.

Naess turned his attention to environmental issues and ecophilosophy during the 1960s. He read books by Rachel Carson, and her sense of wonder for nature inspired him to work on shifting to quality of life values and a nature-oriented sensibility that finds joy in the world of diverse beings. Carson's sense for the interconnected nature of the world and her scientific evaluation of the negative effects of massive herbicide and pesticide use are described in her book *Silent Spring* (1962). This turned him to thinking about the accelerating negative impacts on nature by contemporary industrial civilization and larger issues of ultimate aims and norms.

His first foray into ecophilosophy was in 1965 when he wrote a short

essay, "Nature ebbing out," published here for the first time. In the United States, the first Earth Day in 1970 was a historical landmark of the widespread concern over the accelerating destruction of nature by the forces of industrial society, rapid human population growth, and the rampant destruction of habitat for native species.

He presented his well-known seminal paper "The shallow and the deep, long-range ecology movement: A summary" in 1972 at an Eastern European conference on the future of research. In this paper, he describes the "shallow ecology movement" as an instrumental valuing of nature. It involves the "Fight against pollution and resource depletion. Central objective: the health and affluence of people in the developed nations." He said that this mainstream view is not a deep questioning approach. It assumes that we can go on with business as usual without deeply examining and changing our values and ultimate purposes. He describes the "deep ecology movement" as involving the recognition that we have to examine our basic relationships, values, and priorities with respect for each other and the natural world. Living beings are good for their own sake and have intrinsic value. This deep questioning approach leads us to see how our values, whether explicit or assumed, engender lifestyles that fail to honor our ecological responsibilities and the need for fundamental changes in industrial society. Ecologically based approaches involve "Rejection of the man-in-environment image in favor of the relational, total-field image." We are part of the larger ecological context and cannot stand outside it. We participate in it and affect it no matter what we do. It supports and affects us.

Some critics felt that the "shallow" and "deep" terminology was inappropriate. Naess replied that he was pointing to our usual "shallow" way of thinking and comparing it to a deeper questioning that could yield surprising insights and different, more creative ways of thinking, acting, and being in the world.

Section 1 of this anthology includes articles reflecting his emerging and changing articulation of what he calls the "basic intuitions of the deep ecology movement." These articles in this book span four decades from the 1960s through the 1990s. They expand on themes that Naess considers central to the deep, long-range ecology movement. He consistently uses the term *movement* when he discusses deep ecology. As an activist for peace, social justice, and ecological responsibility, he was deeply influenced by

Gandhi's work on nonviolent, direct grassroots action. He continues to say that the vast majority of supporters of the deep ecology movement, whether they use the phrase "deep ecology" or not, share an "intuition" that everything hangs together, and they feel a broader identification with nature. They seek to develop their own ecosophy or lifestyle to realize ecological wisdom. Naess is a long-term advocate for the peace and social justice movements. He points out that both of these movements should cooperate with the ecology movement. For the health of the planet and the health of human beings, an overriding norm should be "Ecological sustainability!"

Naess says that the deep ecology movement is one of the three great international grassroots movements of the twentieth century; the other two are the peace and social justice movements. He says that while these movements should cooperate with each other, the ecology movement has a special responsibility for conversations with and conservation of nature. The relationship between what he calls "ultimate premises," "the platform of the deep ecology movement," and specific coalitions for social change can be encouraged between greens, social justice advocates, and the peace movement, as briefly described in the article on the "apron diagram." In that explanation, he makes clear that his study of the international ecology movement is connected to a larger appreciation for grassroots movements. He distinguishes between four levels of discourse when discussing these issues.

The level of everyday life assumes certain values in our ordinary practices. When we begin to seek deeper clarification of our ultimate values, we are involved in deep questioning that leads us to state our ultimate norms and views about the nature of the world. The three great international grassroots movements each have a number of principles of a general nature that serve as a uniting ground, even though these movements are supported by people from different nations, cultures, and religions who hold different ultimate philosophies. The platform principles of the deep ecology movement proposed by Naess are stated in section 1 of this book. The four levels of discourse he describes are: ultimate philosophies, platform principles, policy formulations, and practical actions. There is great diversity at the level of ultimate philosophies but some unity at the level of platform principles. In the three great movements referred to above, there are platform principles that serve to unite people at the global level, although they have different personal philosophies and cultures. Policy and practical

action are also more diverse since they are adapted to specific cultures, places, and individuals. Naess says that the ecology movement is enriched by this wonderful cultural diversity and that it is unwise to try to have only one ultimate philosophy or religion in the world. Instead, his vision is of a great diversity of cultures and ecosophies. Followers of the deep ecology movement are inspired to work together locally and globally to move our societies and personal lives toward sustainability. Naess is a celebrant of individual and cultural diversity, believing that this is nature's way and that these are all interdependent with ecological diversity.

Naess continually encourages people to consider their own way of living in the world, both in politics and in daily life (sections 2 and 3). As a scholar of Spinoza, he urges us to consider the relevance to our personal lives of Spinoza's philosophy of feelings. By focusing on positive emotions, we increase our freedom and sense of belonging to a larger world. While many other writers evoke despair and hopelessness in our contemporary situation, Naess emphasizes various forms of joy. We can find joy in watching small birds, walking among wildflowers, enjoying companionship with friends, family, and nature. In the face of continuing, daily assaults on wild places, he advises us to have "a sense of joy in a world of fact" to keep our balance and inspiration. One of his favorite slogans is "The front is very long." There is a place in the deep, long-range ecology movement for all people who share the desire to dwell responsibly in this world. People can contribute to the well-being of other human beings and of nature in a wide variety of ways, including doing beautiful actions. His article "Beautiful Action: Its Function in the Ecological Crisis" (chapter 16) reflects his appreciation for the intrinsic value of certain types of action.

Naess has many sources of joy based on the Norwegian tradition of "free-air-life" (*friluftsliv*), which developed more than a century ago in Scandinavia as a social movement to spend more time outdoors through skiing, mountaineering, orienteering, and other forms of intimate contact with the natural world. His ecophilosophy is grounded in outdoor living and activities, empirical studies, and philosophical reflections.

As a mountaineer, Naess has been inspired by the mountains to write some of his most insightful and deep articles in ecophilosophy. He leads us to see how we can feel that mountains are sentient beings, and in stories they are also metaphors and mythic places, where he learned deep lessons

encouraging articulation of his own Ecosophy T. As already mentioned, the *T* is shorthand for Tvergastein, the mountain hut at which he wrote many of his books and articles. His use of mountains to illustrate lessons in deep-ecology living in balance is reflected in section 5, "The Significance of Place: At Home in the Mountains" and in other articles published elsewhere. His use of mountains in personal myth and as metaphors is reflected in this anthology in such articles as "Metaphysics of the Treeline," "Modesty and the Conquest of Mountains," "Some Ethical Considerations with a View to Mountaineering in Norway," and "The South Wall of Tirich Mir East."

Naess's work in ecophilosophy is connected to his broader reflections on "total systems." This book includes a selection of his reflections on "ultimate premises" and his methodology of "radical pluralism." These articles are essential to understanding the approach he takes to ecophilosophy. Articles in section 7 express his approach to and use of ontology and normative systems and include "Reflections about Total Views," "Notes on the Methodology of Normative Systems," and "The World of Concrete Contents."

Consistent with his emphasis that his approach to deep ecology is not restricted to academic philosophers, Naess has written articles on resolving social conflicts between human beings and wild animals such as whales, bears, and wolves. He emphasizes "nonviolent, direct action" based on Gandhi's ethics of conflict resolution. Examples of these articles in section 4 are "Self-Realization in Mixed Communities of Human Beings, Bears, Sheep, and Wolves," "The Tragedy of Norwegian Whaling," and "Philosophy of Wolf Policies I: General Principles and Preliminary Exploration of Selected Norms."

Naess has consistently encouraged supporters of the deep, long-range ecology movement to reflect on contemporary subjects of lifestyle, population growth, and sustainability of human communities. Articles on these issues include "Deep Ecology and Lifestyle," "Cultural Diversity and the Deep Ecology Movement," "Sustainable Development and Deep Ecology," and "Migration and Ecological Unsustainability." In contrast to some writers, he stresses that wildness and protection of wild places, some of which are inhabited by indigenous peoples, are essential for wise policies in all nations. He appreciates the wisdom in the lifestyles of many indigenous peoples as consistent with the platform principles of the deep ecology movement.

PREFACE BY BILL DEVALL AND ALAN DRENGSON

This anthology concludes with section 9, “Deep Ecology and the Future,” which includes some of his reflections on issues for the twenty-first century and beyond. He believes the problems are huge, but so is human resourcefulness. He encourages us to live richly by appreciating the diversity of cultures and beings in this world we all share. He says that we should seek rich experiences using simple means, and take joy in simple pleasures. We can have a very rich life with low consumption of material things.

This volume concludes with a selected bibliography of Naess’s works in English. It provides source material for scholars who want to pursue research into the development and formulation of Naess’s lifework.

At ninety-two Naess continues to practice nonviolent direct action. He has done so throughout his long and distinguished career as a philosopher, activist, and articulator of deep ecological and social values. He also enjoys Gandhian tennis and boxing.

We hope that readers gain intellectual understanding of deep ecology through the articles in this anthology. We hope they will be inspired to articulate and live their own ecosophies, personal lifestyles committed to nonviolence, harmony with nature, and living fully and joyfully in the world. Let us go beyond what is merely required to act in beautiful and generous ways, giving gifts back to Gaia and our home places.

Bill Devall and Alan Drengson

2004

Author's Preface

Reflections on My Papers and the Selections in SWAN VIII–X

During my active life as a researcher and author, I have published far too much to be a polished writer. I have a long practice of working a set number of hours each day, and at ninety-two I have lived a long life. I hold to this even when I live in my mountain hut, Tvergastein. Over the years I have carried in many precious big reference books to put in its “library.” Writing philosophy in the hut, while looking over a vast mountain and alpine landscape, gave me a different feeling and perspective than when working in my office at the university or in my study at home. Each setting is very different and seems to bring out different aspects of the same subject and of myself. There are also the differences in dialect and local customs that fed my search for an ever more complete total view. To me this diversity is good to appreciate for its own sake. Writing, like teaching, is a way to find out things rather than just a dull report on the past. Writing philosophy for me is an ongoing project, a kind of meditation; in a sense, it is something that I must continue daily, because I continue to have more and more gestalts integrated into my total view with feelings of wholeness.

I never regarded the papers or even the books I wrote to be final drafts, but always works in progress, since my life, philosophy, and worldview are all in an ongoing process of change. Altogether, I have probably written thirty or so books published in various languages, and some in several languages. I have had many coauthoring adventures. There are manuscripts of books started but still in progress. I probably have some finished but unpublished book manuscripts. In the area of smaller-scale publications and writings, there are many kinds of pieces from very short to very long—for example, short reviews, long reviews, discussions, definitional pieces, long

AUTHOR'S PREFACE

single-subject essays, historically oriented papers, formal logic pieces, empirical studies, studies of conceptual systems—pieces on so many different subjects that I am somewhat embarrassed by my lack of attention to other things. I almost always write with passion but am not so keen to keep detailed records of my scholarly research, and at Tvergastein these resources are limited.

I have hundreds of manuscripts of articles, reviews, and other nonfiction pieces in my collection. The SWAN project has been a wonderful undertaking because it helped me to get my works organized to be more accessible to a larger audience. My dear wife, Kit-Fai, has been so good to my work that I can only describe her acts as beautiful. She, along with Harold Glasser, Alan Drengson, and others, plied me with endless questions about my works and individual pieces, for references, for greater clarity, for a better organization in time, and so on. The result is an assemblage of more than seven hundred published and unpublished papers.

We were choosing books to publish and papers for the anthologies of my selected works in English. We settled on seven books to be republished as the first seven volumes in the SWAN series. After some discussion with others, we decided to have three volumes of my papers for a total of ten volumes. We pondered what to include in the anthologies of papers and how to organize them. The result is a collection of writings that is a very deep and broad representation of the large number of papers of my work. The first two volumes are devoted to all the subjects I have worked on, from earliest to latest. These collections (SWAN VIII and IX) are organized in thematic sections somewhat chronologically. We decided to devote the third collection to my writings on deep ecology, because they are the most complete example of a total view that I have been able to offer.

Deep Ecology of Wisdom (SWAN X) is in many respects the most complete volume in the series in that it shows the total sweep of my work. It shows how my comparative and ecological inquiries brought together all my interests and studies. It was also a natural place for me to apply empirical semantics guided by a personal mythology, an undertaking that in the 1990s was offered in my book *Hallingskarvet: How to Have a Long Life with an Old Father*. The Tvergastein article in SWAN X (chapter 33) is an example of the philosophical, empirical, and semantic studies that were saturated with this place through time. SWAN X also includes a comprehensive bib-

AUTHOR'S PREFACE

liography of my works in English, which gives readers the most direct access to this whole body of work. Everything in my work is represented, from Spinoza's philosophy on emotions and Gandhian nonviolent communication, to essays on ontology and mountaineering. All of my work comes together in SWAN X. Readers will see the role of my desire to further nonviolent communication and my scepticism about there being only one worldview that is "true." These reflect my love of diversity.

I have mountain perspectives on worldviews. So many of them are beautiful and so suitable to their places! It is a wonder for me to behold this creative diversity. I found the same on the ground around my hut in the extreme mountain arctic conditions there. Even there, worlds within worlds! In that setting, life energies and mysteries are ever present. I came to approach all research from philosophy to ecology as if I were a field naturalist. This is reflected in my writings. Writing for me is a process of creation, discovery, and systematization; an art that helps me to assimilate and be whole with the more I see, as time goes on, from so many different perspectives. A synoptic view, almost holographic, emerged in my writings in many places. Traveling a lot added to learning these things.

Questions of meaning, preciseness, and interpretation are central to all that I do. We greatly underestimate ourselves in relation to our capacities, but we also greatly overestimate (violently at times) the seeming importance of disagreements over words that are frankly not very precise. The very effort to become more precise is itself an enlightening process that, once started, continues with a natural flow on its own. It is a settled practice that flows through my writing. Gandhian nonviolent communication also runs through my daily writings and practices; it is a second nature. My writings are active engagements, and for this reason I do not find them boring or painful. It is a joy to write about these many subjects that have engaged my passionate interest, especially in relation to the natural world.

Readers of these three volumes of selected papers who want to see my work in a more or less organic way that is roughly historical should read these papers in order, SWAN VIII through X. Those who want an overall look at my whole program of research, writing, and lifestyle should first read volume X. They could also read the last two chapters in SWAN IX, "How My Philosophy Seemed to Develop" and "Deep Ecology and Education: A Conversation with Arne Naess."

AUTHOR'S PREFACE

I have been reflecting on my writings and the way I approach and feel about this work. Let me say something about the different research hares I have chased and the lesser peaks and major mountains I have climbed in the process. I will do this by focusing on a recent ten-year period, from 1987 to 1997.

What has made me eager over the decades to continue writing articles in such great numbers? My spontaneous answer is that these are important questions not only for me but also for everything that it is worthwhile to sustain or develop further. By chance, this very sentence exemplifies a question of this kind: what is meant by “not only for me but . . .” and who is the “me” here? Among such questions there are some to which, as an optimist, I feel I can still contribute. These questions fall into two categories: those related to the ecological crisis and those philosophical questions far away from the ecological crisis. Writing for me is a series of adventures that are part of a larger mythopoetic nature narrative.

I thought that in recent decades the environmental crisis articles would make up the majority of my papers during this time, but to my astonishment that is not the case. For example, in the five years from 1991 to 1995, 61 percent of the articles published [by 1997] deal with general philosophical issues, and 68 percent of the unpublished ones are of that kind. Some of the articles are short, only five pages, which in part explains the large number of articles—78 published and 130 unpublished—during this time. I do very little to get my articles published.

One of the philosophical articles has the title “We need philosophies as life- and worldviews.” Many articles, some used in lectures in various parts of the world, deal with what I hope will characterize university philosophy in the twenty-first century: addressing central questions of what constitutes a meaningful life, diversity of cultures, and the nature of reality. Who are we, where are we, and what do we want most? The last question concerns value priorities. University philosophy, *not* the philosophy of “the man in the street” or of writers in general, has been centered on our talk itself, not on what we talk about. It is often talk about talk. The latest fad has been to stop talking about the variety of conceptions of the world in favor of talking about what are called social constructions, just to mention a focus different from life philosophy and worldviews. (Is nature a big *social* construction?) Clearly, as soon as we start *talking* about anything, for example,

about what is “talk,” what is “social,” and what is a “construction,” we are using a *social* creation, *intersubjective* talking. This does not undermine our excellent, direct relations to the matters we talk about and, I am glad to say, have different views about, some of which are quite personal and individual.

I will not bother to explain all the approaches I have taken within the philosophical sphere. I shall only offer some hints. In ethics I have taught, lectured, and written on the conception of being a “traitor,” a word applied to tens of thousands of Norwegians who in different ways were “on the wrong side” during the Nazi occupation of Norway by Germany. Many who did not deserve it were put in prison. Many believed that Hitler would win the war and that the continued independence and freedom of Norway depended on maintaining good relations with the occupying power.

Norway twice has said “No thank you!” to joining the Common Market, now called the European Union. I have written against joining on the basis of a philosophy that favors cultural differences. The EU is a big step in the direction of economic globalization, a formidable obstacle to cultural integrity and diversity. Some call this effort of mine “applied philosophy,” and I agree.

I have called a class of life- and worldviews *Spinozistic*, and my own view belongs to this class, but that does not *imply* accepting as true or valid any of Spinoza’s axioms and theorems. A long series of my articles deal with Spinoza, especially the central position of strong active emotions as a requirement for increasing our freedom and power, a rather un-Western view! I have explored and written about many Eastern philosophies, including Indian and Chinese. Some of my articles compare Spinoza’s views with Buddhist philosophies.

Gandhian studies continue with what I call the “principles of Gandhian communication,” a form of strict nonviolence. The role of the mass media in tough conflicts makes fairness of central importance. Treatment of an opponent as a fellow human being must be without blemish, even when his views seem to be, or are, horrible, despicable, and idiotic—and even if he is a mass murderer. This treatment is *compatible* with the expression of a strong and honest rejection of the views and actions of an opponent.

Felt suffering has been an important theme in my papers for many years. There is a strange, socially and politically important underestimation of acutely felt suffering and an overestimation of a quantified but not necessar-

AUTHOR'S PREFACE

ily *felt* suffering. If by chance a hundred people living distant from one another simultaneously suffer from a slight headache, this multiplicity of persons does not make the felt suffering stronger. I am deeply interested in the quality, the *feelings* of strong suffering, not some “abstract sum” of suffering.

Suppose we have a chance either to rescue a person from continued, systematic torture or to diminish the slight pain of a million people. As I see it, the choice is ethically unproblematic: rescue the tortured person! Politically, the implication is clear: much greater effort is needed to help people in certain extreme conditions. This, of course, cannot be done without angering dictators. What I call the *intensity principle* in dealing with suffering is generally not considered valid, and the possibility of saving people from continued torture is judged to be very small. As I see it, the problem is that usually only conventional means are considered. We need people with imagination, people like those who rescued thousands of tortured persons during the Second World War and the occupation.

As a philosopher influenced by analytic philosophy and an admirer of mathematical physics, cosmology, and pure mathematics, I regarded the one-hundredth jubilee (1991) of the birth of Rudolf Carnap and Hans Reichenbach as an opportunity to rethink my opposition to their philosophical standpoints and to logical positivism in general. I deeply respect their work, and especially their clearness in the matter of premise-conclusion relations. I have worked hard with a normative system that has only one ultimate normative premise, “Self-realization!” It is a result of the influence of my studies in logic and formal systems. In their work, the logical positivists encouraged each other, discussed with fairness, and used each other’s insights. They were not afraid of real disagreements. This is very unusual in intense philosophical discussions! I try to be fair and cooperate in discussions with my critics in social ecology and ecofeminism.

Going back to the five years from 1986 to 1990, I see that my papers are colored by contributions to the deep ecology movement. There is, however, a notable exception in my writings: what I call *gestalt ontology*. Ontology is an old branch of philosophy that tries to characterize what is real compared to what only appears to be real. Might a birch be bright green and joyful, or is it *really* colorless? Is joyfulness perhaps only a “projection” of joy being felt by an observer? Very roughly, my answer is that *spontaneous experiences* are direct experiences of something real. Joyfulness is

on a par with tallness and specific weight, when we only talk about pure realness. The experiences have a gestalt character. They are complex wholes, not merely atomistic.

The focus on spontaneous experience may be of positive value for deepening and intensifying positive experiences in nature. This focus also accepts the status of negative experiences. If, for example, a city dweller exclaims "Horrible, threatening" when suddenly facing a large waterfall, it is inappropriate to counter with the assertion "You are mistaken. It is really beautiful!" As to the character of being threatening, one might say that it would be a mistake to predict that the water will engulf us. This is just what gestalt ontology says. We can even have a slightly different version; it leads into rather professional philosophical terminologies. Its main thrust radically undermines the claim that only the exact physical sciences show us what is real. On the contrary, they increasingly focus on extremely *abstract structures* of what is real and do not, as sciences, describe any *concrete contents*.

As an outline of my work (from 1987 to 1997), the above gives a rough picture that is a fair description for earlier periods. I should perhaps add a word about my only published book in the 1990s: *Hallingskarvet: How to Have a Long Life with an Old Father* (1995). The main title is the name of a great Norwegian mountain; the subtitle refers to my personal relationship with the mountain. Already at age ten, I looked upon this mountain as being like a wise, benevolent father, but also as a supreme place to live. (My own father died when I was about a year old.) I found in this place an outline of my *mythopoetic life vision*. Many others, I suspect, are today creating such valuable myths of their own. I hope my writings encourage them. If so, these works will serve a useful purpose. So, finally, I am at the end of this written narrative. I invite readers to find their personal paths through this varied and multidimensional terrain of my writings. Follow your own wild passionate feelings.

Arne Naess

2004

Interpretation and Preciseness

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

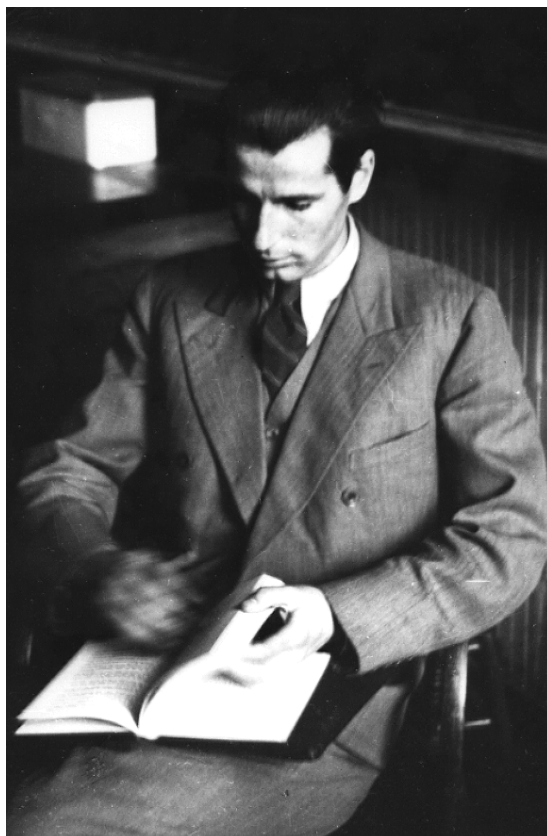
Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Interpretation and Preciseness

A Contribution to the Theory of Communication

Edited by Alan Drengson
in Cooperation with the Author

VOLUME I

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in English by Jacob Dybwad, Norway, 1953.

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>List of Figures and Tables</i>	<i>xv</i>
<i>Series Editor's Introduction</i>	<i>xvii</i>
<i>Author's Introduction to the Series</i>	<i>lxiii</i>
<i>Author's Preface to This Edition</i>	<i>lxix</i>
<i>Acknowledgments for the 1953 Edition</i>	<i>lxxiii</i>
<i>Author's Foreword to the First Edition</i>	<i>lxxv</i>
Introduction	1
I. Basic Terms	5
I.1. Synonymity Sentences	5
a. 'Synonymity Sentence': Introduction	5
b. Copy, Instance (Occurrence), Expression	6
c. Metaoccurrences and Plain Occurrences	7
d. Use and Interpretation of an Expression	8
e. Reference to a Single Pair of Occurrences or to Processes of Interpretation	9
f. References to Many Occurrences or Kinds of Occurrences	9
g. References to Norms of Meaning	10
h. Obscure References	10
I.2. Testability of Synonymity Hypotheses	11
a. 'Marginal References'	11
b. References to Occurrences in Texts	13
c. References to Linguistic Norms	16
d. Past, Future, and Possible Occurrences	16
e. Intrapersonal and Interpersonal Synonymity	18
f. Intrasituational and Intersituational Synonymity	21
g. Broadness and Definiteness of Synonymity Hypotheses	21

CONTENTS

I.3. Examples of Synonymy Sentences	23
I.4. Heteronymy	28
I.5. Ambiguity	30
I.6. Substitutional Synonymy:	
Synonymy Between Ambiguous Expressions	33
I.7. Semantic Systems	39
I.8. Interpretative Sentences	45
I.9. Interpretans Expressions and Lists of Interpretations	50
I.10. Synonymic Alternatives	57
I.11. Examples of Lists of Synonymic Alternatives	
and Interpretations	59
I.12. Preciseness: Introduction	62
a. Normative Definition	62
b. Relation to the Vernacular	65
I.13. Preciseness, Interpretation, and Ambiguity	66
a. Preciseness and Interpretation	66
b. Preciseness and Ambiguity	68
I.14. Specification and Elaboration	69
a. Specification	69
b. Specification Relation Between Designations	72
c. Specification of Sentences	74
d. Exemplification: Why Is It Difficult to Differentiate	
Between Precizations and Specifications?	74
e. Elaboration	77
I.15. Connotation, Denotation, Concept Subsumability:	
Terminological Notes	79
 II. Basic Terms Continued	 83
II.1. Receiver Ambiguity and Interrelational Suspension	83
II.2. Definiteness of Intention: Transintentionality	85
II.3. Explication	88
a. Connotational Explication	88
b. Denotational Explication	89
c. The Process of Explication	91
II.4. Reference Classes	93
a. 'Reference Class'	93
b. Unambiguity in Relation to Reference Classes	95
c. Preciseness in Relation to Reference Classes	96

CONTENTS

II.5. Quantitative Measures of Preciseness Based on Reference Classes	98
II.6. Reflexivity, Symmetry, and Transitivity of Some Relations	104
a. Synonymy	104
b. Heteronymy	107
c. Synonymic Alternatives	109
d. Preciseness	110
e. Interpretation	112
II.7. Incomparability and Transintentionality in Relation to Preciseness	113
a. Equality of Preciseness	113
b. Preciseness and Transintentionality	114
II.8. Comparison of Preciseness of n Sentences in Relation to a Heteronymous Reference Class	116
II.9. Preciseness of Single Acts of Communication	119
II.10. The Limited Importance of Single Acts of Communication to a Science and Technique of Interpretation	124
II.11. Schematic View of Requirements of Communication to Many People	125
II.12. Relation Between Knowledge of Context and Preciseness	126
II.13. Interpretational Vibrations Caused by Broadening the Context	128
II.14. Synonymy and Preciseness of Imperatives	132
II.15. Synonymy and Preciseness of Questions	135
 III. Misinterpretation and Pseudoagreement	 137
III.1. To Assent and to Agree: Verbal Agreement	137
III.2. Pseudoagreement and Pseudodisagreement	139
III.3. Communications That Show Symptoms of Pseudoagreement and Other Undesired Properties	142
III.4. Some Important Types of Sequences of Steps in Discussions	148
III.5. Misinterpretation with Weight Effects	150
III.6. Concepts of Preciseness Based on Frequency and Gravity of Misinterpretations	152
III.7. «Mere Questions of Terminology»	153
III.8. Misinterpretation and Pseudoagreement in Relation to Imperatives	154

CONTENTS

III.9. Misinterpretation of Questions	157
III.10. Latent Disagreement	159
IV. Definitoid Statements	161
IV.1. Synonymity Announcement Sentences	161
IV.2. Normative Definitions: Introduction	163
a. Definition	163
b. 'Normative Definition' Introduced	166
c. Identification of Normative Definitions	168
d. Complex Normative Definitions	169
IV.3. Interpretative Announcements	170
IV.4. Normative Definitions Exemplified	172
Note on Normative Definitions in This Work	172
IV.5. Conditions of Two Sentences Expressing the Same Normative Definition	175
IV.6. Purpose of Normative Definitions	178
IV.7. Preciseness of Definiendum and Definiens in Normative Definitions	184
IV.8. How Normative Definitions Are Criticized or Appraised: «True by Definition»	187
IV.9. Descriptive Definitions of Usage	191
IV.10. To Give Descriptive Definitions of Usage and Then to Make More Precise	194
IV.11. Definitions as Condensed Characterizations (Real Definitions)	195
IV.12. Definitions as Condensed Characterizations Exemplified	196
IV.13. Sentences with Complex Definitional Function	200
IV.14. Concepts of Synonymity and Concepts of Definition	204
IV.15. Predictional Theories About the Use of an Expression	206
V. Elementary Analysis	209
A. Description of Synonymity and Ambiguity Hypotheses and of Simple Definitions	209
V.1. Description of Hypotheses Expressed by Synonymity and Ambiguity Sentences	209
V.2. Interpretation of Definitoid Sentences in General	215
V.3. Some Distinctions Exemplified and Tabulated	217

CONTENTS

V.4. Illustrations of Elementary Analysis	226
V.5. Levels of Preciseness of Descriptions of Definitoid Statements	230
V.6. Descriptions of Explicit Definitions	238
V.7. Description of Definitions and Philosophical Analysis	239
B. Analysis of Complex Definitoid Statements and Groups of Definitoid Statements	241
V.8. Inconsistencies and Contradictions Within Complex Definitoid Statements	241
V.9. Analysis of Groups of Definitoid Formulations	244
V.10. Illustration 1: Bryce on 'Democracy'	248
a. List of Bryce's Definitoid Formulations on «Democracy» in <i>Modern Democracies</i> and <i>The American Commonwealth</i>	249
b. Reformulation of Some Definiens Expressions to Facilitate Comparison and Increase the Level of Preciseness	253
c. Tentative Precizations of Bryce's Definitoid Formulations	256
V.11. Illustration 2: Bradley on «Truth»	264
V.12. Metaoccurrence Analysis in General	265
C. Subsumption Analysis	266
V.13. Scope and Definition of Subsumption Analysis	266
V.14. Some Preliminaries Involved in Subsumption Analysis Schematical Survey	268
V.15. Illustration 1: Irving Fisher on 'Wealth'	275
V.16. Illustration 2: Historians on «History»	277
V.17. Survey of Difficulties of Testing Descriptive Definitions by Means of Subsumption Analysis	285
V.18. Definiendum Indications: Their Lack of Preciseness and Elaborateness	286
V.19. Definiens Indications: Their Lack of Preciseness and Elaborateness	289
V.20. Indications of Field of Application: Lack of Preciseness and Elaborateness	293
V.21. A Vicious Circle Created by Interpreting Definiens on the Basis of Examples Offered in Support of Normative and Descriptive Definitions	296
V.22. A Vicious Circle Created by Interpreting Occurrences (Instances) Offered in Support of a Synonymity Hypothesis on the Basis of That Hypothesis	298

CONTENTS

VI. Occurrence Analysis	301
A. Occurrence Analysis Characterized	301
VI.1. Introduction: Meaning Revealed by Use	301
VI.2. Natural Occurrences and Artificially Produced Occurrences	302
VI.3. Main Steps of a Standard Connotational Occurrence Analysis	304
1. Identifying and Specifying of Occurrences to Be Analyzed	304
2. Listing Occurrence Implicates	306
3. Interpreting Occurrence Implicates and Constructing Other Inferences	312
VI.4. Consistency Problems	316
4. Forming and Testing Hypotheses About Usage in the Form of Descriptive Definitions	319
VI.5. Relation Between Practical Testability and the Extent of a Hypothesis's Intended Field of Application	325
VI.6. Limited Choice Analysis	329
VI.7. Analysis of Single Designation on the Basis of Hypotheses About Structure	331
B. Illustration of a Connotational Occurrence Analysis	332
VI.8. Delimitation of the Class of Occurrences to Be Analyzed	332
VI.9. Implicate List	333
VI.10. Inferences in Relation to Occurrences 1–66	344
VI.11. Inferences from Zaslavski's Definitoid Statements on Democracy	354
VI.12. Other Inferences	359
VI.13. Narrow Concepts of 'Authentic Democracy' Versus Broad Concepts of 'Democracy Authentic or Nonauthentic'	361
VI.14. Precization Possibilities of Broad Concepts, Especially Their Specific Conceptual Characteristics	366
VI.15. Precization Possibilities of Narrow Concepts of 'Authentic Democracy'	372
C. More on the Theory of Occurrence Analysis	376
VI.16. The Function of Assumption About Uniformity of Use	376
VI.17. Assumptions About Definiteness of Intention	380
VI.18. Linguistics and Occurrence Analysis: Method of Opposites	381
VI.19. Concluding Remarks on the Connotational Occurrence Analysis	384
VI.20. Occurrence Analysis of Other Varieties	384

CONTENTS

VII. Introduction of a Group of Concepts or Tests of Synonymy	389
A. Concepts of Intrapersonal Synonymy	389
VII.1. Introduction	389
VII.2. The N-Concepts of Synonymy: Synonymy Identified with Presence of a Rule Proclaiming Sameness of Sense	391
Precizations and Elaborations	391
VII.3. Limited Fruitfulness of 'N-Synonymy'	394
VII.4. N-Synonymy Hypotheses: How to Test Them	396
VII.5. The Ds-Concepts of Synonymy: Synonymy Identified with Reported Sameness of Meaning	398
VII.6. Ds-Concepts of Synonymy Introduced by Reference to Questionnaire Procedures	399
Questionnaires of Type Qs1	399
Questionnaires of Type Qs2	403
Questionnaires of Type Qs3	405
VII.7. Truth-Condition Concepts of Synonymy	406
VII.8. Truth-Condition Concepts, Verification, and Certainty	410
VII.9. Cognitive-Weight-Condition Concepts of Synonymy	412
VII.10. Argumentational Synonymy	412
VII.11. Løvestad's Questionnaire	414
VII.12. Recapitulation	416
B. Concepts of Interpersonal Synonymy	418
VII.13. Interpersonal Synonymy Hypotheses Based on Information About Intrapersonal Synonymy	418
VII.14. Systematic Exposition of a Procedure	423
VII.15. Interlude	426
VII.16. Systematic Exposition Continued	429
VII.17. Interpersonal Relations of Interpretation and Preciseness	435
C. Synonymy of Occurrence Analysis	436
VII.18. «Synonymy» Defined in the Terms of Occurrence Analysis	436
VII.19. Introduction of a Concept of 'Occurrence Synonymy'	438
VII.20. Occurrence Synonymy and Connotational Occurrence Analysis	442
VII.21. Occurrence Preciseness	445
VII.22. Occurrence Analysis Disregarding Authors and Intended Meanings: Authoritative Systems as Guides for Interpretation	447

CONTENTS

VIII. Synonymity Questionnaires in Use	451
VIII.1. Scope of the Empirical Studies Reported in This Chapter	451
VIII.2. Empirical Symmetry of the Relations of Qsxy-Synonymity	452
VIII.3. Empirical Evidence of Symmetry of Synonymity Relations as Defined by Questionnaires	454
Questionnaires of Type Qs1	454
Further Qs1 Questionnaires	458
Questionnaires of Type Qs2	461
Questionnaires of Type Qs3	463
Questionnaires of Type Qs4	464
VIII.4. Summary of Results	466
VIII.5. Transitivity of Synonymity Relations: Questionnaire Concepts	466
VIII.6. Empirical Evidence of Transitivity of Synonymity Relations Defined by Questionnaires	467
VIII.7. Interviews Used to Study Previously Given Answers	470
VIII.8. Empirical Evidence from Metaquestionnaires	473
Questionnaire MetaQs1I	473
Questionnaire MetaQs1II	477
A Differential Procedure	478
VIII.9. Difficulties of Questionnaire Procedures	482
General Considerations	482
Difficulties of Qs1	484
Difficulties of Qs2	487
VIII.10. Effect of Reversal of Order of Sentences in Qs3	489
VIII.11. Effect of Training on Classifiability of Answers, Qs5	490
VIII.12. Concluding Remarks	492
 <i>Notes</i>	 495
<i>References</i>	505
<i>Index</i>	513

List of Figures and Tables

Figures

1. Some items involved in the construction and use of a description of normative or descriptive definitions.	221
2. Construction of a description of normative or descriptive definitions adapted to the case of two designations of the intended field of description.	224
3. Schematic model for subsumption analysis.	272
4. Steps in connotational occurrence analysis.	317

Tables

1. Classification of Bryce's Definitoid Formulations on «Democracy»	251
2. Occurrence List of «Démocratie», etc., in Zaslavski	334
3. Symmetry of Qs1A-Synonymity Relations	457
4. Symmetry of Qs1A-Synonymity Relations (continued)	459
5. Comparison of Answers to Qs1 No. 2.7, Qs1i No. 1, and Qsq1 No. 1	461
6. Symmetry of Qs2A-Synonymity Relations	463
7. Symmetry of Qs3A-Synonymity Relations	464
8. Symmetry of Qs4A-Synonymity Relations	466
9. Transitivity of Qs1- and Qs4-Synonymity Relations	469
10. Comparison of Meta-results	480
11. Effects of Reversal of Order of Response Choices, Qs3	490
12. Classifiability and Training, Qs5	491

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's lingua). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of

what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philo-

sophical palette, not the “world” of his own consciousness as has become the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the “external world,” the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the “immediately given,” which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza’s *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess’s mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir’s famous, deceptively simple aphorism sets the stage: “When we try to pick out anything by itself, we find it hitched to everything else in the universe.” Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or “things in themselves” in the sense of Kant’s *Ding an sich*. With Naess’s “gestalt ontology,” there is no dualistic “I” standing outside of reality looking in. Living beings, individuals in the sense of Spinoza’s modes, are spatiotemporal manifestations of “one substance,” nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza’s medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize “living beings” broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess’s view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology’s simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our

SERIES EDITOR'S INTRODUCTION

experience of the world is made up of gestalts. “[This] is the world we experience. Nothing is more real.”⁴ People create abstract structures to reflect on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess’s parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess’s “ontological realism” as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of “reality is one” plays a central role in the mature Naess’s approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality’s concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. “As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence.”⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess’s perspective, such accounts by themselves are merely a sign of cultural poverty. “God” could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess’s gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as “the social construction of nature” become oxymoronic. Third, individual organisms exist as knots in

a biospherical web or net. Reality is not anthropocentric; it is not particular to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion.

SERIES EDITOR'S INTRODUCTION

He views humans as essentially fallible and he sees this domain of fallibility as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of

philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative sys-

SERIES EDITOR'S INTRODUCTION

tems can be seen as very “useful fictions,” which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philo-

SERIES EDITOR'S INTRODUCTION

sophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. “We have all read it. We *still* cheat in argumentation, but now with feelings of guilt.”¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as “truth,” “democracy,” and “private enterprise.” . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that

SERIES EDITOR'S INTRODUCTION

contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation the-

SERIES EDITOR'S INTRODUCTION

ory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works*

SERIES EDITOR'S INTRODUCTION

would have simply remained a “great idea” without Doug’s generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of environment should not, in Naess’s view, play a pivotal role in shaping a budding philosopher’s development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess’s philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess’s principal writings. As such, the *Selected Works* is the definitive repository of Naess’s oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess’s philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded,
and should follow his questions wherever they lead.

Arne Naess, “Norway”

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his

SERIES EDITOR'S INTRODUCTION

mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and

SERIES EDITOR'S INTRODUCTION

organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small mountain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potently influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way"—*sva mār̥ga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous

brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his *bon mot*, “simple means, rich ends.”

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he “learned” new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses

SERIES EDITOR'S INTRODUCTION

a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing

their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the "far outside" and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess's 1965 article "Science as behavior" (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the "near outside."

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers' intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers "commonsense" views on the notion of truth. He then related these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substan-

SERIES EDITOR'S INTRODUCTION

tial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as *"Truth" as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's "Common Sense and Truth" (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Ustaaset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created "institutes" of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance move-

SERIES EDITOR'S INTRODUCTION

ment. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “re-education.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi’s catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi’s idea of trying to meet one’s opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war, Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO’s requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy*’s richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politi-

SERIES EDITOR'S INTRODUCTION

cally dangerous character of its items.”²³ Naess’s “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess’s empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess’s frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO’s plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess’s research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepti-

cism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the

SERIES EDITOR'S INTRODUCTION

most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "some-

thing is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation and Preciseness*, to argue that it is an illusion to assert that combined scientific and philosophical or "purely" philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they

SERIES EDITOR'S INTRODUCTION

spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of "fundamental theories" is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V), was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), "Seek complete self-realization" and "Seek truth," and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of "Self-realization!" as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against

the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its

SERIES EDITOR'S INTRODUCTION

relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is ". . . to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions taken earlier. Volume VIII includes sections on "Empirical Semantics and 'Truth,'" "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology

and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion, and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a

SERIES EDITOR'S INTRODUCTION

name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work entering into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the "deep ecology movement." Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of "Ecosophy T."

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses

this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach's proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans' special capacities for reason and moral consciousness come special responsibilities, particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired “Self-realization!” In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's “Self-realization!”—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual

SERIES EDITOR'S INTRODUCTION

or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they ne-

cessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecologi-

SERIES EDITOR'S INTRODUCTION

cal philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy) make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaran-

thine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this approach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring

SERIES EDITOR'S INTRODUCTION

the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manuscripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

SERIES EDITOR'S INTRODUCTION

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of “Miracle Doug,” Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation’s publishing manager, who in the project’s final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo’s Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU’s dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU’s Research and Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His sugges-

SERIES EDITOR'S INTRODUCTION

tions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

SERIES EDITOR'S INTRODUCTION

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of “Experts’ views on the inherent value of nature.” The original editions of Naess’s texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie’s replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible “work fairies” that were constantly pulling me back to my office don’t actually exist. I can’t wait.

Most of all, thanks to Arne Naess for placing his trust in me—it’s been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like

SERIES EDITOR'S INTRODUCTION

receiving Pandora's box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne's writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder's "Axe Handles." The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely

SERIES EDITOR'S INTRODUCTION

competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet*

SERIES EDITOR'S INTRODUCTION

Liv (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001).
A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.
6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise

SERIES EDITOR'S INTRODUCTION

- "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
 10. Letter to Doug Tompkins, May 26, 1992.
 11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
 12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
 13. Personal communication, April 30, 1997.
 14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
 15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
 16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

SERIES EDITOR'S INTRODUCTION

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.
24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by

SERIES EDITOR'S INTRODUCTION

- Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
 26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
 27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhi's Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
 28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
 29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
 30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecology approach to ecophilosophy," the "deep ecology movement," and Naess's "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion

SERIES EDITOR'S INTRODUCTION

of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was

AUTHOR'S INTRODUCTION TO THE SERIES

"A philosopher." In fact, I had already conceived of myself as one. I viewed the writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that "What do I mean?" is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these "ordinary" people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems

AUTHOR'S INTRODUCTION TO THE SERIES

discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my

AUTHOR'S INTRODUCTION TO THE SERIES

knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclination very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

AUTHOR'S INTRODUCTION TO THE SERIES

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II),

AUTHOR'S INTRODUCTION TO THE SERIES

The Pluralist and Possibilist Aspect of the Scientific Enterprise (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity, attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

To write and rewrite this big work was a formidable duty, a five-year heavy march after the Second World War. It was performed to convince the world of analytic philosophers what it takes to interpret a text if you are an empiricist and a human being absorbed in the unsurveyable manifold of diverse cultural realities.

We all interpret texts every day. We sometimes feel that our interpretation of a text lacks preciseness. What is required to unfold the world of different interpretations, all of which are plausible enough to warrant consideration? What are the main traits of this manifold, and is it ever possible to reach a so-called correct interpretation? What does *correctness* mean here?

This work is polemic in a strange sense. The *tone* is not polemical, but my feeling at the time of its writing was one of desperation and disgust. The analytic philosophers seemed to be caught in the superstition that reality has a fixed core, a nucleus. Applied to language, this is conceived as *the* logic of language, a deep grammar, a universal structure, or whatever. The streams of experience of interpretation and preciseness were not taken seriously. To show that this was the case demanded examples. In *Interpretation and Preciseness* I use for this purpose a short text on the then Soviet democracy written by a Soviet ideologist—one of the editors of *Pravda*—David Zaslavski. The words *démocratie*, *démocratique*, and *antidémocratique* (also in plural form) occur 192 times in the 107 very small pages of the French translation. I posed the question “How can I get to know fairly exactly what Zaslavski means by *démocratie* in his little book?” By looking at his definitions? No. His definitions are only *metaoccurrences*, and, as we all know, authors rarely follow their own definitions. Furthermore, the sentences expressing the definitions are usually so vague and ambiguous that supposed

AUTHOR'S PREFACE TO THIS EDITION

applications cannot be severely tested. As Karl Popper would say, we cannot always decide whether an occurrence of the term follows a certain definition, if the verbal expression of the definition is vague and ambiguous. Consequently, we have to investigate *closely* each of the 192 occurrences! There was, and is, a need for this kind of extensive empirical research within the area of social thinking and rhetorical communication. One of the many fruitful methods for doing part of this job is outlined in this volume, *Interpretation and Preciseness* (SWAN I).

I think philosophers who recognize that their views about a philosophical subject have an empirical aspect or component should not shy away from doing empirical research, if that would be of some help. Research is necessary on a large scale because “language” is much more unruly than widely accepted within the milieu of analytic philosophy. I write *language* in quotation marks because the distinction between language and speech is relevant: both the actual performance of speech acts and the hypothetical rules governing them are in a constant riverlike movement. How I felt about this situation from the time of my stay with the logical empiricists in 1934 through 1935 in Vienna, and later in the 1940s, is explained in the long 1952 foreword and introduction to *Interpretation and Preciseness*.

The general social and political result of neglecting empirical investigations of the use of words and expressions seems clear: unawareness, sometimes deliberate, of the function of slogans and slogan-type thinking. Terms like *democracy*, *freedom*, *truth*, *justice*, *exploitation*, and *national interests* occur in important documents, in announcements, in social and political propaganda, and in general discourse in all societies, whether democratic or not. I proposed that empirical investigations, especially what in *Interpretation and Preciseness* is called *occurrence analysis*, should be institutionalized and regularly carried out.

My conclusion, after being the scientific leader of the East/West controversy project for UNESCO in 1948 through 1949, was that great conflicts can be clarified through semantic and argumentation analysis, and that such clarification does to some modest degree decrease the level of violent, irresponsible communication. In this respect, the writing of *Interpretation and Preciseness* was influenced by Gandhi, who was able to discuss with equimindedness, even in extreme conflicts between Hindus and Muslims.

In the 1950s I talked with Noam Chomsky at MIT. At that time he was

AUTHOR'S PREFACE TO THIS EDITION

working on his “deep grammar.” He knew my work in *Interpretation and Preciseness*. He said that it would have little impact. In a mild way, he told me that his approach to language *would* have an impact, and it certainly has! My way was not to study language for the sake of a general understanding of what language is. He said that what should and must be done was to follow a very different direction of research from *mine*. He pointed to *his* direction and invited me to join. He gave me the impression of being seriously interested in language and linguistics, and I was not. I wished to participate in and help to resolve conflicts that disturbed me. I never met him again, but did of course often think how right he was in his intuition about timing. He opened up work for thousands of researchers on language. The kind of research I thought should be done on an extensive scale did not materialize. This was a huge disappointment to me.

Why did I use elementary symbolic logic when stating theorems and conceptual structures in *Interpretation and Preciseness*? I did it both for economy of expressions and beauty. Very early in life, I admired *Principia Mathematica* by Bertrand Russell and Alfred North Whitehead. The notation I adopted follows that of David Hilbert and Wilhelm Ackerman's beautiful textbook of symbolic logic (1950). It is a sheer joy to follow their proofs! I hope readers today will be inspired by this logical and empirical approach to understand better how language is actually used and comes out of individual and cultural contexts.

Arne Naess

2004

Acknowledgments for the 1953 Edition

At every stage in the development of this work, I have been stimulated and encouraged by the constructive criticism of students and research personnel. I am especially grateful for their efforts to use and modify the basic tenets of this work. Ideas have been given freely and abundantly. This applies to all the authors listed in the Foreword. Numerous students have given their time to reply to questionnaires without knowing the exact purpose of the questionnaires.

In the last few years I have profited from discussions with Professors David Rynin, Leo Apostel, and Chaim Perelman, the first-named having also read the proofs and improved my English. Needless to say, I alone am responsible for the remaining defects.

Several people—Siri Blom, Finngeir Hiorth, Jakob Meløe, Kjell Sellin, and Mia Berner Øste—have been kind enough to help in making indexes and in checking up on innumerable sources of error.

Norges Almenvitenskapelige Forskningsråd provided money for research purposes and Det Norske Videnskaps-Akademi i Oslo defrayed the printing costs. I wish to express my gratitude for this generous assistance.

Author's Foreword to the First Edition

The present work is a link in a series of monographs and articles. Its aim is explained in the introduction. What I hope to do in this foreword is to describe the genesis of this work and to place it in perspective vis-à-vis the related works of certain other authors.

In *Truth as Conceived by Those Who Are Not Professional Philosophers* (1938), I tried to show the inadequacy of the intuitive methods employed by philosophers to determine how «true» and related terms are conceived, defined, and used by ordinary people. The exclusive use of intuitive methods for these purposes tends to result in an underestimation of the diverse trends of reflection among those who are not learned. The various kinds of so-called theories of truth are represented in an embryonic stage of development among young people who are strangers to professional philosophy.

Dialogues with those who are philosophically uneducated convinced me that acceptance of intuitions reported by the philosophically sophisticated about the verbal and conceptual habits of others leads to confusion and error. These dialogues also convinced me that if we place expressions from an everyday language into a logical machine, our interpretations are likely to be unsatisfactory unless we have empirically confirmed information about the conventional uses of those expressions. My reference here is not only to the use of «not», «if-then», «true», «possible», «necessary», and other such expressions, but also to the use of terms in physical, biological, psychological, and other inquiries in which logical or mathematical calculi are meant to be employed.

It is not necessary to depart from philosophical pastures to see the need for trying out empirical procedures aimed at discovering the linguistic uses and conceptual commitments of the man in the street. Philosophers dis-

AUTHOR'S FOREWORD TO THE FIRST EDITION

agree abundantly among themselves concerning so-called «ordinary» or «conventional» or «common sense» uses of expressions in conversational languages—for example, G. E. Moore and C. L. Stevenson on «good», N. Malcolm and Bertrand Russell on «know», and R. Carnap and G. H. von Wright on «probable». Even authors with the same or similar general philosophical convictions often differ in this regard—for example, R. Carnap and H. Reichenbach on «probable», and M. Black and N. Malcolm on «to know». For additional examples, the reader is referred to essays in Schilpp (1942) and articles in recent volumes of the periodicals *Mind*, *Analysis*, and *Philosophical Review*.

I do not contend that these philosophers in all cases *should* have investigated conventional usage by other means than intuition. I merely suggest that empirical procedures should be applied to empirical questions. When philosophers offer conflicting answers to questions that have empirical components, empirical research is needed.

Various mimeographed studies have preceded this book—for example, *Interpretation and Preciseness*, I–VI (1947–1951).¹ I there suggest, among other things, that debates about synonymity might be more illuminating if we used empirical procedures to obtain information concerning similarities and equivalences of cognitive meaning. Evidence of exchangeability of one term for another is an example of such information. Occasionally, we ask ourselves, and not other people, Do I interpret the text in the same way if the one term is exchanged for the other? Much more important and extensive information can be obtained by less crude questions (for example, those of the questionnaire Qs6, page 409) and by the occurrence analysis described in chapter 6. Occurrence analysis, however, is time-consuming and complicated, and it will be heuristically valuable to have shortcuts.

The use of empirical procedures along the lines suggested in those mimeographed studies has been promoted by various investigators in various fields, inside and outside philosophy.

The following authors, among others, make use of the kind of conceptual structure or empirical procedure described in the present work: Fluge (1944a, 1944b), Grimm (1954), Gullvåg (1951, 1954), Haaland (1947), Løvestad (1945), Naess (1938, 1942, 1946, 1953, 1954), Ofstad (1950a, 1950b, 1952, 1953), and Tønnessen (1948, 1949, 1950–51). L. Løvestad (1945) used a questionnaire with interesting results to study what physicists might mean by

AUTHOR'S FOREWORD TO THE FIRST EDITION

«testable» as predicated on physical laws (see page 414ff.). A. Haaland employed subsumption analysis (page 266) in his examination of Nietzsche's use of «*Wille zur Macht*». H. Tønnessen used various empirical methods in his analysis of the term «type» in psychology and elsewhere, and in his other investigations. He has also extended his studies into noncognitive aspects of meaning. H. Ofstad, in his studies of «legal norm» in the writings of Ross and Kelsen, has employed various empirical techniques, and thereby shed light on basic terms in the philosophy of law.

These and a series of investigations not yet finished make use of one or more procedures described in this work. The results have stimulated me to do additional theoretical work in these areas.

So much for the wider, largely cooperative work of which the present study is a part. Let me pass on to some features of the philosophical background responsible for the kind of approach I have adopted.

A prominent feature of the background that has produced this emphasis on empirical techniques is the tremendous development in formal logic and related fields. That development has inspired many of the trends in modern analytical philosophy, and admittedly with results of lasting value. The stress, however, on formal and axiomatical methods has endangered the free flow of empirical research in philosophy. There is a tendency to look upon deductive and axiomatical procedures as somehow more philosophical than empirical ones, and this has undermined the position of the broad empirical traditions (Aristotle, Ockham, Locke, Berkeley, Hume, Bentham, John Stuart Mill), which in my view deserve a strong representation in contemporary culture. The charge of psychologism against thinkers of this tradition is well founded, but has been largely misapplied. It has discouraged research into genuinely empirical components of question complexes of a mixed formal and empirical character.

The kind of activity today referred to by names such as «logical analysis» and «conceptual clarification», is only partly deductive and axiomatical in character. Much of it seems to me to rest on intuitions about one's own and others' uses of terms and to contain recommendations or preferences in matters of terminology. The intuitional approach is excellent so long as the agreement in results is of the intersubjective, intercultural kind that characterizes some of the results in the formal or factual sciences. Such agreements, however, have not been obtained.

AUTHOR'S FOREWORD TO THE FIRST EDITION

Very roughly, one may distinguish a deductive, an intuitional, and an empirical component in the writings of analytical philosophers. Even in those cases in which deductions and intuitions can help us considerably, consistent neglect of the empirical component will bring research toward stagnation. If empirical studies are neglected, we shall see much intelligent debate along intuitionist lines, but less of that process that many of us find so inspiring in the history of philosophy and science: the development of new branches of reliable knowledge as a result of combined philosophical and scientific efforts. To my mind, the ideal philosophical *research* is that which *starts* from vague general questions or hunches that are apparently impossible to handle except by pure speculation and with the aid of intellects more profound and penetrating than those of mere journey-men scientists. By series of transformations, more and more aspects of the questions are treated by methods yielding intersubjective agreement about the results and making it possible for disinterested observers to check them.

It is not my intention here to provide a general validation of the principles underlying this work—that would require another book—but to try to convey a picture of the motives for this work. In general, I have been led by a conviction that what is not testable deductively should be analyzed with the aim of discovering how it otherwise might be tested, and by a conviction that if intuitions are used, procedures should be devised by which intuitive results of different, presumably competent people can be compared. If the intuitive results seem to conflict or are difficult to delimit and express, one should look for methods by which to avoid at least some of the intuitive components of the procedure.

The vision that I have of the task of those who wish to do philosophical research, and not just engage in philosophical debate, is such that the cooperation of many workers over long stretches of time is just as essential as in the departments of science, and that any light that might be thrown on any component of a philosophical question by means of empirical methods is of value. Critics who would assume that the methods described in this book aim at solving questions that the intuitively and deductively operating logician has not been able to solve, mistake the intention.

Against such a charge of immodesty, I should like to stress, first, that instruments of research are introduced here that only long practice and

AUTHOR'S FOREWORD TO THE FIRST EDITION

hard methodological analysis can bring into a more mature shape. The methods and results are preliminary, but it is our impression that advances along the lines suggested justify our expectations.

Second, the concern of logicians is primarily normative: they construct and propose systems of rules of usages rather than assert anything definite about relations among usages. The construction of systems and the testing of their purely formal adequacy are such tremendous tasks, involving so many technical difficulties, that logicians cannot be expected to take up the less central descriptive tasks involved—for example, the task of showing that one concept of implication is more in agreement with the use of «if . . . then» in the factual sciences than another, or that the ordinary usage of the term «true» leads to paradoxes.

One more ingredient of my general motivation or background ought to be mentioned: I have been impressed by changes in classification systems and conceptual frameworks as the result of empirical research activity. The changes have made it easier to promote further research and to compare findings. I have, accordingly, not hesitated to introduce new concepts closely related to particular research techniques, using as concept designations old terms with a wide variety of vague meanings. When research activities arise out of a philosophical context, the vocabulary of research will be different from the vocabulary used in the preceding philosophical debate.

The presumption I have made in dealing with questions arising in philosophical debate, such as «does 'a' mean b?» or «Does 'a' mean the same as 'b'?», is that it is unfruitful to stick to vague terms such as «mean» in the technical reports on discoveries made by empirical procedures. It is more rewarding to let research modify the conceptual structure, and to develop terminology closely related to the procedures. This principle, so successfully used in many disciplines, is used here even when crude questionnaire procedures are employed. That is, certain concepts are introduced in such a way that subsumption under them rests on results obtainable by use of questionnaires.

Last, but not least, I have been interested in stimulating researchers who are basically motivated by philosophical questions but who do not shun empirical work of a rather unspiritual kind when such work proves to yield information they need.

Note on the Use of Symbolic Logic

Sheer enthusiasm for symbolic logic and the potentialities of formalization led me to plan a development of semantics as a formalized system, or, to be more specific, to have two parallel versions, one deductive and one hypothetico-deductive. After some years, however, it seemed to me practically impossible to concentrate simultaneously and seriously both on the empirical technicalities of questionnaire techniques, data gathering, and occurrence analysis and on the logical technicalities concerning formalization. Again and again, the requirements of formalization turned my attention toward distinctions that were of little or no relevance to the empirical investigations. A division of labor was needed. I found my contemporaries to be more attracted to formalized semantics and logical analysis than to empirical research in semantics. This seems to owe to the tradition already alluded to, which attracts students with a contemplative or mathematical bent rather than students willing to carry out programs of empirical research.

For these reasons, I abandoned my plan for a formalization of results of semantical research, and gave empirical studies priority. I found, however, that some symbolizations were good for expository purposes and economy of thought. For example, there are a series of concepts with important similarities and important differences that conveniently can be surveyed in a notation of the calculus of relation. These symbolizations are used for some of those concepts:

(1s)		Syn (a_1b_1)
(2s)	(i) (j)	Syn (a_ib_j)
(3s)	(i) (j)	Syn ($a_iP_1b_jP_1$)
(4s)	(i) (j)	Syn ($a_iP_1b_jP_2$)
(5s)	(i) (j) (k) (l)	Syn ($a_iP_jb_kP_l$)
(6s)	(i) (j) (k) (l)	Syn ($a_iP_jS_1b_kP_lS_2$)

The natural-language equivalents of these symbolizations are clumsy, even if certain finer nuances of the symbolic formulations are left unrepresented. The rough equivalents of the first and the third are:

AUTHOR'S FOREWORD TO THE FIRST EDITION

- (1) The expression «a», at the occurrence place a_1 , is synonymous with the expression «b», at the occurrence place b_1 .
- (3) Every occurrence of the expression «a», as used or interpreted by the person P_1 , is synonymous with every occurrence of the expression «b», as this expression is used or interpreted by P_1 . (General intrapersonal synonymy between «a» and «b» for P_1 .)

In the context in which these and analogous clusters of concepts are discussed, the symbolic notation seems to provide an economy of energy even for the reader with very little knowledge of symbolic logic. In this book, only a few sections make use of the powerful tool of the calculus of relations, and even in such sections (for example, section 6 of chapter 2), expository purposes predominate. This explains why the logical aspects of the symbolic notation are not discussed in detail. The notation itself follows roughly that of *Principia Mathematica* and Hilbert and Ackermann (1938).

The expression «shall in this work be used synonymously with» is represented by «=_D» in symbolizations that function to introduce a normative definition. It expresses my decision to use a sentence or designation in a certain way. After the decision has been made, we need to refer to it. In such cases, the symbolization does not *introduce* a normative definition. The expression «shall in this work, according to an antecedently introduced normative definition, be used synonymously with» is symbolized by «=_d». We use two distinct symbolizations because of the important practical and theoretical difference between introducing and using a normative definition.

Use of Single Quotation Marks

Single quotation marks are used for concepts. Thus, the title of a section in chapter 2 is Reference Classes, but the first subtitle is 'Reference Class'. This first subsection furnishes the introduction to a concept of reference class. The next subsections contain mainly statements about reference classes, for example, about their usefulness.

A title of a section of chapter 6 runs as follows: Precization Possibilities of Narrow Concepts of 'Authentic Democracy'. It is not intended in chapter 6 to speak about concepts of concepts of authentic democracy, but sim-

ply about concepts of authentic democracy. In general, the form «concept of 'x'» is to be understood as meaning the concept of x.

Use of Guillemets for Double Quotation Marks

With the Aristotelian securely seated on the throne of logic for many centuries, the sudden and impressive growth of modern logic was a magnificent surprise. It should be added that one of the most surprising events was the development of the function of quotation marks—the consistent use of which seems now sometimes to be considered a test of competency in logical theory. The use of many quotation marks, however, spoils the look of the page (in my eyes), and I have never been able to try sincerely to be consistent in their use.

Accordingly, I have adopted the French *guillemets* (« ») for use where one would expect to find double quotation marks in an English-language publication. I have, however, omitted *guillemets* (and double quotation marks) in symbolizations such as $Syn(ab) \ \& \ Amb(a) \ \& \ Amb(b)$, and '*a*' is synonymous with '*b*' and '*a*' is ambiguous and '*b*' is ambiguous, and also in contexts in which such symbolizations play a dominating role. Thus, in such a context I write, $Syn(ab)$ is an abbreviation for (i) (j) $Syn(a_i b_j)$ —not «'Syn (ab)' is an abbreviation of '(i) (j) $Syn(a_i b_j)$ '».

Elsewhere, italics are sometimes used in the place of *guillemets*—for example: A list of expressions will be called an *intrapersonally heteronymous reference list if*. . . . Sometimes both italics and *guillemets* are used.

The letters T, U, V, with or without subscripts, are never placed within *guillemets*. They always stand for sentences or for designations and never for that which sentences or designations may express or denote. One of the chief reasons for introducing T, U, V, is just this point: they are used instead of the clumsier «a», «b», «c», especially in contexts containing many references to sentences or designations.

Guillemets are used to set off both quotations and quotations within quotations.

Introduction

If this publication is going to be useful to others in their research, I shall have to make quite clear just what the conceptual structures and empirical investigations that I describe aim to accomplish. This is, alas, a difficult task because the aim is *similar* to, but slightly different from, the aim of various contemporary studies in logical analysis, theory of communication, conceptual clarification, and so forth. If our intention is *identified* with any definite aim as depicted in those contemporary studies, it will tend to lead the reader astray.

One misconception I should like to mention at once: that I try to solve problems that philosophers down the ages have not succeeded in solving. What I have tried to do is to open up certain channels of research of a rather basic, but trivial, kind. The research I have in mind can be carried out only step-by-step as a cooperative enterprise. What is reported in this single volume has a pronounced preliminary character.

The immediate aim of this work is to contribute to the foundation of semantics and the theory of communication as an empirical science.

A variety of concepts of importance to semantics are defined in terms of a set of concepts of synonymy. Among the synonymy concepts, those of *interpersonal* synonymy are based on *intrapersonal* synonymy. To avoid vague controversy about relations of intrapersonal synonymy, I have introduced certain procedures, most of them in the form of tests (see chapter 7). One may prefer tests other than those introduced in this work, but the main point is that tests or procedures of some kind are developed, and assertions about intrapersonal synonymy thereby become an object of research rather than ingredients in intelligent conversation.

The term «semantics» is a catchword that does not convey any definite

INTRODUCTION

meaning. This work concentrates on cognitive aspects of verbal communication—for example, the attempt to convey information—but spoken and written expressions are not abstracted from the context of individuals' speaking, writing, listening to, and reading those expressions, as is legitimately done in pure logical analysis. The basic materials for us are occurrences of utterances. Thus, «it rains» is in itself no immediate object of our concern, but we are concerned with «it rains» as uttered or heard, or instances of that sentence in texts.

A major defect of much contemporary discussion of meanings and their relations seems to me to be an underlying assumption that one need not work with definite groups or lists of occurrences of a phrase in order to arrive at conclusions about usage. There is a tendency to avoid descending from assertions about the meaning, for example, of «truth» to assertions concerning instances of «truth». This avoidance slurs over a great number of difficulties inherent in the kind of inductions leading from assertions concerning definite instances of a term («occurrence implicates», etc.) to assertions concerning general meaning. These difficulties are analyzed in chapters 5 and 6. From the very beginning of chapter 1, much stress is laid on the analysis of semantic hypotheses in terms of hypotheses concerning definite instances (occurrences) of terms or sentences.

The difficulties inherent in attempts to «find the meaning(s)» of terms or sentences by analysis of occurrences have led us to give up the customary concepts of meaning. Instead, certain concepts of occurrence synonymity are introduced, which to some extent may be helpful in situations in which we are accustomed to rely on «finding the meaning(s)».

The optimism inherent in inductions or intuitions about meaning seems to stem from an inadequate distinction between the act of giving meaning—as in defining—and the act of finding meaning. Therefore, theory of definition occupies a central place in the following exposition.

The *semantics of cognitive communication*, as studied in this work, is intimately related to linguistics as an empirical science. It is legitimate to ask, Why not leave this branch of research to linguists, especially the lexicographers? The answer would be that the kind of work that lexicographers have done so far is not sufficiently explicit in its methodology to permit facile extension to those tasks that the historian of ideas, the expert in logical analysis, and others are trying to solve. Nevertheless, close cooperation

with linguists is needed. It is our hope that within thirty years, a person motivated by interest in the theory of knowledge, rather than by interest in language, may find linguists eager to furnish what he needs of semantical information.

The contribution to a theory of cognitive communication outlined in this work is designed to be of help to philosophers with an analytical and empirical bent. I hope, however, that it also will be of help in a much broader kind of research. I hope this study will be of use to those who are carrying out comprehensive studies of certain terms or phrases as they occur in politics, religion, and ethical or other kinds of indoctrination; or of terms in some of the sciences including history, theory of law, and other branches of the humanities.

Further, the conceptual structure and empirical techniques are relevant to studies of verbal agreements and disagreements, for example, as they are listed as results of questionnaire findings. In what sense do 100 «Yes»'s listed as «answers» to a question represent an «agreement» in opinion about something? Assertions in the social sciences and in other fields in which questionnaires are used are usually based on hypotheses about interpersonal synonymy. The contents and testing of such hypotheses are one of our basic subjects.

In saying that the present work is a contribution that might be helpful in all the above-mentioned fields of study, I do not mean to pretend that other approaches are not helpful. In many, if not most, situations, cognitive communication is sufficiently well analyzed by use of common sense, intuition, or deduction. Techniques such as occurrence analysis (see chapter 6) are mainly useful when disagreements among students of semantics already have arisen, and only when the problems are judged to be sufficiently interesting to warrant months or years of work.

I

Basic Terms

I.1. Synonymity Sentences

a. 'Synonymity Sentence': Introduction

Consider the following sentences: ««It rains» means the same as «*es regnet*».» ««It rains», in English, sometimes means the same as «*es regnet*» in German.» «As used by Lincoln, the expression «government of the people, by the people, for the people» means the same as «democracy» to those who read this word in textbooks on citizenship.» All these sentences have some expressions in common. We may say that they have the skeletal form «--- means the same as . . .». The dashes and points simply indicate open spaces in which sequences of words may be inserted.

In the above examples, «---» and «. . .» both referred to designations, or to declarative sentences.

The term «synonymity sentence» will be used as a common name for sentences of the following skeletal forms:

- a. «--- has the same meaning as . . .»
«--- and . . . mean the same»
«--- means what is meant by . . .»
«--- means the same as . . .»
«--- has the same sense as . . .»
«--- and . . . have the same sense»
«--- expresses the same meaning as . . .»
«--- and . . . express the same meaning»

I. BASIC TERMS

«--- expresses the same sense as . . .»

«--- and . . . express the same sense»

«--- expresses the same as . . .»

«--- and . . . express the same»

«--- is synonymous with (to) . . .»

«--- is used as synonymous with (to) . . .»

«--- and . . . are employed as synonyms»

«--- and . . . are synonymous»

«--- is a synonym for . . .»

«--- and . . . are used synonymously»

- b. Forms derived from the above by inserting «not» or other signs of denial, or by using other indicative tenses of the verbs, for example, «had» or «have» instead of «has».

Sentences of these skeletal forms are given a common name because they form an important part of the sentences that are sometimes intended to express assertions about synonymy in those technical senses that will be introduced in chapter 7. What is more important, they often seem to get a fairly precise meaning not appreciably different from those intended when *interpreted as if* they expressed assertions involving synonymy in the technical senses to be introduced in chapter 7.

The delimitation of the above concept of synonymy sentence is partly determined by the presupposition that sentences of the various skeletal forms listed can very often be substituted for one another without change in intended cognitive meaning. This presupposition is not discussed here because it is found convenient to postpone the introduction of concepts of cognitive meaning.

b. Copy, Instance (Occurrence), Expression

In the heading above you will find the letter sequence «expression». In other copies of this work, the same sequence is found in just the same place relative to the rest of the text. We shall say that there are a number of *copies*

of the same *instance (occurrence)* of a sequence of letters, namely occupying a certain place in a particular text.

Instances are distinguished by reference to texts of which they are a part. The letter sequence «expression» occurs not only in the section title above, but in various other places in the text of this book and in other books. They are different instances (occurrences) of the same word, the English designation «expression».

Suppose a reader of a text by William James says, «Look here: «true» as used here does not mean the same as «agreement with reality»». The reader may point at a copy of an instance of the designation «true», but what he intends to assert is scarcely limited to an assertion about that copy. It may involve the particular instance of use by James, or all instances of use by James, or some other more or less vaguely conceived subclass of the total class of occurrences of «true».

The sequence of letters «government of the people, by the people, for the people» at the end of the authorized printed version of Lincoln's Gettysburg Address constitutes, according to this terminology, an (individual) instance or occurrence of the designation «government of the people, by the people, for the people». In the foregoing sentence, two other instances of the same designation are found. Every particular sequence of letters «government of the people, by the people, for the people» will be counted as an instance or occurrence of that designation.

Designations and declarative sentences will be subjected to parallel treatment in the following; the term «expression» will be used as a collective name for both.

c. Metaoccurrences and Plain Occurrences

The most important division of the total class of occurrences of an expression is into plain occurrences and metaoccurrences. A «metaoccurrence», as this term is used here, is an occurrence within a context such that one may say that something is said *about* the expression occurring. Plain occurrences are instances of the expression being used or interpreted, but not referred to as an object. As an example consider «The term «race» is too ambiguous to be used in serious discussion». In this quotation, there is a

I. BASIC TERMS

metaoccurrence of the designation «race» and a plain occurrence of the designation «ambiguous».

In this section there have so far been four instances of the expression «government of the people, by the people, for the people» and all have been metaoccurrences. In the next paragraph there will be a fifth metaoccurrence of that expression.

The above paragraph contains two plain occurrences of the designation «metaoccurrence».

Some ethical codes prohibit the *use* of certain words, for example, «son of a bitch», «*merde*». The occurrences in this paragraph do not break the codes, because the codes refer to plain occurrences, not to metaoccurrences. The codes themselves may contain metaoccurrences of «son of a bitch».

When certain expressions are said to be synonymous, they are presented by means of metaoccurrences in synonymy sentences.

d. Use and Interpretation of an Expression

A plain occurrence of an expression is generally conceived to have a definite intended meaning, and synonymy sentences may accordingly refer to meanings intended by authors *using* (emitting, sending, asserting) a certain expression. The expression «use of an expression» refers to the process of sending the expression. In most cases one may assume that a given occurrence of an expression has been sent only once and by one person. This furnishes the basis for asking, «What is *the* intended meaning of this expression as used here at this place in the text?»

One and the same text may, on the other hand, be read by different people. A synonymy sentence may accordingly refer to meanings that some or all persons reading the text attach to one and the same occurrence, it may refer to different *circumstances* under which the interpretation has been carried out: one may, for example, say that the first time one read the first occurrence of the term «differential» in a certain textbook, one did not interpret it to mean the same as one interpreted it to mean the twenty-first time one read it. We shall say that the designation «differential» did not in all situations have the same meaning for a certain person in the capacity of *receiver* or *interpreter*.

A vast multitude of processes of interpretation have, since 1781, been

elicited by readers of the sentences of the first chapter of *Kritik der reinen Vernunft*. It is both common and convenient to assume that every time Kant himself read the sentences they meant the same to him as receiver, and that the meaning was the same as the meaning intended by him as sender, but the assumption would be questioned by some careful students of Kant, such as N. K. Smith (1918).

*e. Reference to a Single Pair of Occurrences
or to Processes of Interpretations*

Consider the formulation «The designation «government of the people, by the people, for the people» at the end of Abraham Lincoln's Gettysburg Address means the same as the designation «democracy» occurring in the sentence «This expresses my idea of democracy» on page 389 in the seventh volume of Lincoln's *Writings*». This formulation can be interpreted to assert that there exists a kind of relation, «sameness of sense or meaning», between two particular definite occurrences (instances) of designations.

One of the plausible interpretations of the above formulation is that, as intended by Lincoln when he produced the occurrences, they mean the same. If such an interpretation is adequate, the formulation refers to a set of processes of interpretation that, at least in principle, can be dated.

f. References to Many Occurrences or Kinds of Occurrences

Consider these examples: «In the works of Newton the terms «mass» and «product of density and volume» are synonymous.» ««Democracy» as used by Aristotle in his *Politics* does not mean the same as «democracy» as used in the 1641 text of the constitution of Rhode Island.»

The reference of «in the works of Newton» may be said to be a reference to a kind of occurrence: the kind of occurrence—defined by being part of the texts constituting the works of Newton; or the reference may be conceived to be a *class reference* (a reference to the class of occurrences of «mass» occurring in the texts by Newton). In the references to Newton, Aristotle, and the constitution of Rhode Island there are no explicit indications of whether a single or several occurrences are believed covered by the hypothesis. It is only presumed that there exist occurrences of the description given.

I. BASIC TERMS

In class terminology, the first example may be formulated as follows:

«Each and every member of the class of occurrences of the designation «mass» characterized by being part of the texts written by Newton, is synonymous to (expresses the same sense or meaning as) each and every member of the class of occurrences of the designation «product of density and volume» characterized in the same way». Or, «The following assertion holds good as applied to the texts of Newton: each and every instance of the class of occurrences of «mass» is synonymous to each and every instance of the class of occurrences of «product of density and volume»».

g. References to Norms of Meaning

Synonymity sentences sometimes have references such as «correct language», «properly speaking», and «according to the rules of the language.» An expression is sometimes said «really» to mean the same as some other expression, whereas it, as sent or received, has not meant the same as the other one. It has been «misused».

There are, in other words, cases in which synonymity sentences are not intended to express anything about processes of interpretation, but rather an agreement or disagreement with a rule or set of rules announcing that use should (ought to, must) be such and such.

b. Obscure References

Often synonymity sentences do not have clear-cut references of the above kinds, or combinations of them. There may be no references or they may be vague and ambiguous to such an extent that a long list of rather different plausible interpretations can be constructed. Consider the sentence ««Philosophy» means the same as «love of wisdom»». One may sometimes interpret this sentence to assert a property of absolutely all occurrences (including future occurrences) of the term «philosophy», and of a group of related words in languages other than English. More often, however, plausible interpretations have to take into account that certain kinds or groups of occurrences are intended to be excluded, for example, «misuses» of the term, use by obviously unqualified people, use in arbitrary codes, occurrences found in works of certain eccentric authors, and so on. Sometimes the au-

I.2. Testability of Synonymity Hypotheses

thors of «means the same as» sentences may lack any fairly definite intention; sometimes the intended meaning may be fairly definite but obscurely expressed.

Another example: reference is sometimes made to the term «democracy» in «Western tradition». It is hopeless to delimit a fairly definite class of occurrences on the basis of such a reference. Some occurrences may be pointed out as certainly belonging to occurrences within the Western tradition, for example, certain occurrences in Bryce's *Modern Democracies*. But for every subsumable instance there may easily be recorded an instance that is not clearly subsumable either under «Western tradition» or under «tradition other than Western». The political views of the user of the expression «Western tradition» and his knowledge of its history in the nineteenth century seem to be important subjects of study for the analyst who wishes to find out what the expression is intended to mean.

I.2. Testability of Synonymity Hypotheses

a. 'Marginal References'

Just what, if anything at all, is intended by synonymity sentences? It is reasonable to suppose that the answer first of all must be based on hypotheses about the meaning of such expressions as «mean the same as», «synonymous», and so on. Let us call them the «synonymity expressions» and include under this term all expressions mentioned in the list on page 5.

For reasons mentioned at the beginning of this chapter, such hypotheses will not be discussed at this early stage of the work. Attention will be concentrated, not on the relation itself but on the relata of the synonymity relation.

If synonymity sentences express hypotheses of some sort, the indications expressing the relata may be said to indicate the *intended subject matter of the hypotheses*.

The claim of a synonymity hypothesis expressed by a synonymity sentence may be assumed to depend partly on the meaning attached to those parts of the synonymity sentences represented by the dashes in the scheme «--- is synonymous with . . .» If those parts of the sentences have no fairly precise meaning, there is no fairly precise hypothesis. The testability of the

I. BASIC TERMS

hypothesis will to some degree depend on what kind of procedures are at hand to delimit the relata, or, in other words, to point to the material that the hypothesis is intended to cover.

In the following, the name «*subject matter references*» will be given to those parts of synonymy sentences that are represented by «---» and «. . .» in the skeletal forms. Such references are mostly divisible into two separate kinds of indications: (1) references to expressions, namely the expressions said to be synonymous, to mean the same (the expressions are sometimes in quotes to remind the reader that they are metaoccurrences); and (2) references to subclasses of occurrences of the expressions, or to norms of usage, or to frequency of cases or other properties of the synonymy relation. Let us call these indications «*marginal references*».¹

The division of synonymy sentences into three parts is made only for purposes of convenient exposition. No theoretical importance is attached to it, and the division is in some cases rather arbitrary.

In the following synonymy sentences, the marginal references are in italics:

«*As used by U.S. court members in court*, the term «the essence» *when applied to inventions* and the term «the real invention» are synonymous.»

«*As interpreted by Tarski*, «equality» and «logical identity» mean the same *in arithmetic*.»

«*Among pragmatists* «true» does not mean the same as «useful» *when they use the terms themselves*.»

«*Very often* «America» *when used in newspapers* is a synonym for «the United States».»

The following symbol is used for synonymy sentences in which the three above-illustrated parts are distinguishable:

$\text{Syn}(aM_1bM_2)$

«Syn(---)» is the symbol for synonymy relation (not including reference to special time intervals). The letters «a» and «b» symbolize two expressions or occurrences of expressions (said to be synonymous). If a synonymy sentence refers to many expressions, the sentence will be symbolized by a conjunction of symbols: $\text{Syn}(aM_1bM_2) \ \& \ \text{Syn}(cM_1bM_2)$ &. . . . The symbols M_1 and M_2 stand for marginal references, the first one

referring to «a» and the second to «b». If there are only references to «a» and «b» together, two letters will still be used: $\text{Syn}(aM_1bM_1)$.

The form of the symbol suggests the application of the calculus of relations to synonymity relations, but to avoid discussion of technicalities, I make no pretensions of applicability of symbolic logic at the present stage of the exposition.

b. References to Occurrences in Texts

When a synonymity sentence is intended to refer to a definite pair of occurrences in texts, it should, for methodological purposes, be possible to transform the sentence in such a way that it conforms to the following pattern:

- (1) The expression instance a_1 at the place G_1 is synonymous to the expression instance b_1 at the place G_2 .

In convenient symbols:

$$(1s) \text{Syn}(a_1G_1b_1G_2)$$

Suffixes of «a» and «b» are used to indicate individual instances. The symbols «a» and «b» without suffixes are reserved to symbolize the expressions as certain sequences of letters. To avoid confusion, two different sequences are never taken as representing identical expressions. Thus, «true» and «*wahr*» or «true» and «truth» are taken as different designations, and «It is raining now» and «It is now raining» are conceived as two different declarative sentences.

The place indications, G_1 and G_2 , must in some way make it possible to identify different places within definite texts.

The indication «last sentence of the written reproduction of the Gettysburg Address by Lincoln» may refer either to a definite copy defined in relation to a *single* original document, or to the *total class of copies* of the Gettysburg Address. To avoid unnecessary complications, different copies of texts are not distinguished in the following. In some cases a differentiation is important, however. Thus, studies in the history of ideas very often presuppose comparison of individual copies of what is said to be the same text,

I. BASIC TERMS

because most existing copies, for example, of important medieval texts, differ from one another at least in details.

A hypothesis that there is a relation of synonymy between definite occurrences is only sufficiently well delimited provided the definite occurrences are fairly unambiguously indicated. If they are not, there is no hypothesis according to stricter forms of scientific methodology. If we set out to confirm or weaken the alleged hypothesis, we cannot know what to test. Just what is asserted about what?

As an example of a far from easily identifiable intended subject matter, we may take that intended by the following description: «the chronologically first occurrence of the Greek term corresponding to the English term «true» in the texts of Plato». Owing to uncertainty about the chronological order of Platonic texts, the difficult question of authenticity, and the indefiniteness of the expression «corresponding», no definite occurrence is indicated by such a description. There is, on the other hand, reason to expect that research at least in the remote future will be able to single out a definite occurrence that fairly certainly satisfies the description, but only provided it is made more precise.

A particular occurrence a_1 of «a» cannot be distinguished from any other particular occurrence of «a» other than by reference to a definite place in a text. What « a_1 » stands for in (1s) is therefore not independent of what G_1 stands for. The symbolization (1s) is preferred to the simpler $\text{Syn}(a_1b_1)$ as a reminder that definite occurrences presume for their delimitation relations of «a» and «b» to definite frames of reference such as texts.

Suppose a synonymy hypothesis includes satisfactory reference to definite occurrence places. Testability also presumes reference to norms of meaning or to interpretative processes believed to have, or to have had, the occurrence as stimulus, or somehow to have determined the choice of the expression by a sender. If no explicit reference is made to such eventualities, this may be explained by the assumption that the synonymy relation is believed to hold good in relation to all existing linguistic norms and to all interpretative processes. Such an assumption is rarely, if ever, tenable. If, however, the assumption is not made, there are usually so many possibilities of references being tacitly assumed that little is gained in trying to formulate them all. As symbol of a subclass of synonymy hypothesis, (1s) will be used on the basis of the above assumption.

When a synonymy hypothesis is intended to refer to definite pairs of

occurrences in texts, it should be possible, in principle, to transform the sentence to a conjunction of sentences of the form (1). If a great number of occurrences of «a» and «b» are covered by the hypothesis, such a form needs, of course, to be shortened. This can be done by finding a suitable set of common and specific characteristics of the «a»'s and «b»'s. The hypothesis may be formulated thus:

- (2) All occurrences of «a» at the places (characterized as follows:) G_a , are synonymous with all occurrences of «b» at the places (characterized as follows:) G_b .

In symbols:

$$(2s) (i)(j) \text{Syn}(a_i G_a b_j G_b)$$

All a's at places G_a are synonymous with all b's at places G_b . No numbering of the instances is required because of the indiscriminate synonymy (all-with-all synonymy) within the subclasses of occurrence places denoted by G_a and G_b . As a special case, G_a and G_b are such wide characterizations that the class of denotata is identical with the total class of occurrence places of «a» and «b» in texts. The hypothesis in that case covers «any occurrence place whatsoever». The hypothesis asserts universal indiscriminate synonymy.² (In logical terminology G_a and G_b denote subclasses but not genuine subclasses.) Suppose a text contains a number of occurrences of «a» but none of «b», and that a new text is made by substituting «b» for «a» in some places in the old text. An important type of synonymy hypothesis is one in which no change of meaning has been effected by the substitution. As the hypothesis does not necessarily state that «a» in the old text always means the same, it does not claim indiscriminate synonymy within each text. Numbering of the occurrences is essential. The hypothesis may conveniently be formulated as follows:

- (3) Each occurrence of «a» at the places G_a is synonymous with each occurrence of «b» at the corresponding places G_b .

In symbols:

$$(3a) (i) \text{Syn}(a_i G_a b_i G_b) \text{ that is, if } n \text{ instances of substitution,}$$

$$(3b) \text{Syn}(a_1 G_a b_1 G_b) \& \text{Syn}(a_2 G_a b_2 G_b) \& \dots \& \text{Syn}(a_n G_a b_n G_b)$$

I. BASIC TERMS

An important kind of synonymy hypothesis states that certain occurrences or all occurrences of an expression mean the same as a definite occurrence of another expression. Suppose that two lawyers engage in a controversy concerning certain traffic accidents, and that they frequently make use of the term «blind». A hypothesis of synonymy may state that every occurrence of «blind» in the controversy-texts is such that «blind» means the same as «blind curve» at a definite place in the official traffic regulations of the state in which the accidents took place.

In such cases synonymy is asserted between a class of occurrences of one expression and a single occurrence of another expression. If the occurrences can be identified in texts, the cases can be symbolized as follows:

$$(4) (i) \text{Syn}(a_i G_a b_i G_1)$$

$$(5) (i) \text{Syn}(a_i G_1 b_i G_b)$$

c. References to Linguistic Norms

If a synonymy sentence is intended to claim that certain occurrences of an expression «a» are covered by a rule saying that «a» under certain conditions shall mean the same as «b», we shall not use the term «synonymy hypothesis». What is asserted can be said to be the *subsumability* of the occurrences of «a» under the field of validity announced by the rule. It is said that the rule is such that the occurrences fall under its domain. It is not said that the rule has been followed, and that therefore the occurrences of «a» actually have been used or interpreted to mean the same as «b».

If the latter is also intended to be expressed, we shall say that two hypotheses are made. According to the first, a certain rule *announces* (regulates) usage by saying what should be used synonymously. The second hypothesis *asserts* the existence of a synonymy relation.

d. Past, Future, and Possible Occurrences

The delimitation of the subject matter of a synonymy hypothesis by reference to individual places in specified texts is methodologically very satisfactory insofar as it ensures a high degree of definiteness and preciseness in communication between independent investigators.

As soon as specification of places is omitted, and characterization of classes of occurrences relied upon, serious questions of subsumption are likely to make themselves felt: does the characterization apply to this particular occurrence? References such as to «occurrences in texts by Plato», «the use of «truth» by pragmatists», and «interpretations of «murder» by judges in court» leave the door open for a very different delimitation of subject matter because of differences in theories about authorships, institutions, and whatever else is referred to.

If a hypothesis concerns the terminology in texts by Stoic logicians, all relevant occurrences belong to the past. This simplifies the delimitation of subject matter. Very often, however, synonymity hypotheses are intended to cover not only past but also future occurrences. Hypotheses about the use of terms by «pragmatists» or «existentialists» or about the interpretation of the Lincoln formula on democracy by «Marxist theorists» may claim to hold good not only for occurrences or interpretative processes up to the time of the assertion of the particular hypothesis in question, but far into a vaguely conceived future. The framer of the hypothesis may not have in mind definite occurrences, but *dispositions* among people to react in certain ways. Pragmatists may be said to have linguistic habits of peculiar kinds, and as long as they persist, certain terms will be used in certain ways. When hypotheses make claim to cover the future, the marginal references are likely to be vague and ambiguous, making checks difficult or practically impossible.

Serious methodological difficulties arise when a synonymity sentence is intended not only to cover occurrences, but «possible» occurrences in varying senses of «possible». One may say about certain sentences that, if there had been instances of use of them among certain people, they would have meant the same as certain other sentences. One may say that, to Cicero, sentence «a» and sentence «b» meant the same, without being sure that Cicero ever used the sentences. From general regularities of linguistic habits, and maybe from actual instances of use of certain words in the expressions «a» and «b», the hypothesis may be inferred.

The methodological situation is no more serious than that in the hypothesis that cyanide of potassium is poisonous or that sulphur burns in air. The claim of such hypotheses covers all pieces of cyanide of potassium and all pieces of sulphur even in time intervals in which nobody is poisoned and

I. BASIC TERMS

no sulphur burns. There is a permanent possibility dependent on properties of organisms and of air that under suitable circumstances, specified in the more precise versions of the hypothesis, cyanide of potassium will release processes of certain kinds, and sulphur will burn.

Synonymity hypotheses may concern more or less permanent possibilities of certain interpretative processes. From more or less general and indirect evidence, an investigator may feel convinced of the existence of certain linguistic dispositions. The hypothesis that certain linguistic dispositions exist and that they make «a» and «b» synonymous should not be confounded, however, with the hypothesis that «a» and «b» are synonymous. The hypothesis that sulphur burns in air does not make the claim that sulphur and air have certain properties A, B, C, and that these will inevitably make sulphur burn in air. Such hypotheses concern the explanation for why sulphur burns in air. To avoid ambiguities, we may say that synonymity hypotheses make claims about actual or possible interpretative processes in the same way that hypotheses about certain substances being explosives make claims about actual or possible explosions. The claims concerning «possible» instances may be transformed into predictions that interpretative processes will be observable, or would have been observable given certain specified conditions.

The foregoing discussion is meant to furnish proposals regarding how to delimit fruitful concepts of 'synonymity hypothesis'. One of the pertinent questions is, Are there plausible interpretations of synonymity sentences that express fairly definite hypotheses testable by known standard procedures? Do some interpretations result in methodologically less satisfactory hypotheses than others?

The proposals are, of course, highly tentative, and so far only concern interpretations of marginal references, not of the central part of synonymity sentences: the expressions «mean the same», «express the same sense», and so forth.

e. Intrapersonal and Interpersonal Synonymity

In synonymity sentences references to persons are particularly frequent: «for N. N. ---», «as used by Newton ---», «pragmatists say ---», «many people use ---», «nobody interprets «a» to mean ---».

The synonymity relation claimed by a synonymity sentence will be said to be *interpersonal* if it covers at least one case of synonymity between an expression as used or interpreted by one person and an expression as used or interpreted by another person. If it covers no such case, it will be said to be *intrapersonal*.

Examples of kinds of interpersonal synonymity relations: for P «a» means the same as «a» for Q; a_1 as used by P means the same as b_1 as interpreted by Q.

Examples of intrapersonal synonymity relations: for P «a» means the same as «b»; for P and for Q «a» means the same as «b».

Consider the following kind of sentence: «a» means the same for P and Q as «b» means for P and Q. The sentence may be interpreted to include a case of interpersonal synonymity, for example, that «a» for P means the same as «b» for Q, or it may be interpreted to include only intrapersonal relations. In general, if an expression «a» is said to be synonymous with «b» for a certain group of n persons, the weak claim of n intrapersonal synonymity relations may be intended, or the strong claim of n intrapersonal and $n^2 - n$ interpersonal relations.

If the person referred to in an intrapersonal synonymity hypothesis is a trained linguist or logician, it is generally supposed that he can easily help test the hypothesis. It is presumed that he knows about his linguistic habits in sufficient detail to inform the analyst about them without making special investigations. This opens up the possibility of questionnaire methods to test intrapersonal synonymity hypotheses.

Consider the sentence «As interpreted by the historian Crew, the designation «density» as used by Newton is synonymous with «specific gravity» as used by Ernst Mach». In this case something is stated about relations of terms within the class delimited as occurrences interpreted by one and the same person. The domain of the asserted relation is the class of occurrences of «density» (a) in the manuscripts of Newton. It is said that the members of this class *express to Crew* the same meaning that the occurrences of «specific gravity» (b) in the manuscripts of Ernst Mach *express to Crew*.

The example suggests different kinds of references to persons. It is important to note a number of distinctions, some of them roughly suggested by the following skeletal sentences:

I. BASIC TERMS

1. N. N. intends by «a» to express the same meaning as he intends to express by «b» (sender synonymity, intended).
2. As used by N. N. the term «a» expressed the same meaning as the term «b» as used by N. N. (sender synonymity, intended or not intended).
3. N. N. interprets «a» as occurring in his own or other writings to mean the same as «b» (as . . .) (receiver synonymity).
4. As intended by N. N. when using and as interpreted by N. N., «a» expresses the same meaning as «b» (sender-receiver synonymity).

Distinctions of this kind will often be used in later sections. In the following, the expression «*For P*, «a» is synonymous with «b»» is used in accordance with item 4 above.

Some convenient symbols:

$(i)(j)\text{Syn}(a_i P_1 b_j P_1)$	indiscriminate (intrapersonal) synonymity of «a» with «b» «for» a person in the sense of «for a person as user or interpreter»
$(Ei)(j)\text{Syn}(a_i P_1 b_j P_1)$	existence of at least one occurrence of «a» such that as used or interpreted by a certain person, it is (interpersonally) synonymous with «b» as always used or interpreted by another person

Symbols with suffixes «i», «j», «m», or «n», but without quantifiers before «Syn», will be used as abbreviations for symbols with universal quantifiers before «Syn».

$$\text{Syn}(a_i P_m b_j P_n) =_d (i)(j)(m)(n) \text{Syn}(a_i P_m b_j P_n)$$

The left-hand symbol may be read, «For all people, «a» and «b» are always synonymous».

It is to be noted that if a synonymity sentence is such that it may be symbolized by one of the above expressions, this is no guarantee that it expresses a fairly definite hypothesis. The symbols only help to classify mar-

ginal references in a preliminary way. A reference to «all» people is easily symbolized, but the reference may be very unsatisfactory because of the many plausible interpretations of «all».

Sometimes sentences of the form ««a» means the same as «b»»—without any references to occurrences—may, as previously mentioned, be interpreted to assert the existence of a norm regulating the use of «a». In that case, it is not a synonymity hypothesis and it will not be symbolized by a symbol of the form «Syn(aM₁bM₂)». If, however, ««a» means the same as «b»» is conceived as a synonymity hypothesis, the symbol of the form «Syn(aM₁bM₂)» is sometimes used, and then as a typographical abbreviation for «Syn(a_iM₁b_jM₂)». The latter symbol is again a shorthand sign for «(i)(j)Syn(a_iM₁b_jM₂)».

f. Intrasituational and Intersituational Synonymity

In the case of partial or total, direct or indirect nonpersonal references, it is convenient to distinguish two kinds of references. Either the occurrences or interpretative processes of both expressions are given the same characterization—for example, «contemporary use», «technical usage», «political debate»—or there is one characterization in relation to «a» and another in relation to «b». In the first case we shall speak of *intrasituational*, and in the second, of *intersituational* synonymity.

An example of an intrasituational synonymity hypothesis is the following: in philosophic discussion ««theory of ethics» means the same as «theory of morals»». An intersituational synonymity hypothesis: ««moral» in the vernacular means the same as «ethical» in philosophic discussion».

In symbols:

Syn(a _i S ₁ b _j S ₁)	intrasituational synonymity
Syn(a _i S ₁ b _j S ₂)	intersituational synonymity

g. Broadness and Definiteness of Synonymity Hypotheses

If several hypotheses about the relations in meaning between two expressions are put forward, their comparability depends upon the preciseness of the marginal references. If those references are sufficiently precise, the

I. BASIC TERMS

claims of each hypothesis can be mapped out and cases of compatibility and incompatibility distinguished.

Very often synonymy sentences can be plausibly interpreted to have an exceedingly broad scope in the sense of covering a vast manifold of occurrences or interpretative processes. This is the case with sentences about sameness of meaning «in the vernacular» or «in common use». The sentences without marginal references might be interpreted to have a universal claim; for example, «It is true that it rains» means the same as «it rains». It is notable, however, that on being discussed, claims tend to narrow down and become more specific.

Because of the vastness of possible intended classes of occurrences, and the variety of occurrences, the question of how to draw the line between instances intended and instances not intended is, indeed, often a formidable one. The question is primarily one of economy of description, insofar as fairly precise indications tend to be much too laborious to work out and too complicated to publish considering the rather slight interest we usually have in synonymy hypotheses. Scientific methodology requires, however, that if a relation between two groups of phenomena is asserted, the groups must be sufficiently well delimited to enable us to test the hypothesis. If one does not wish to use the energy and time required to make the classes of instances well delimited, one cannot claim to make any well-delimited assertion.

The problem is one of degree. It is easy to point out that science has progressed in spite of a measure of indefiniteness and vagueness of scientific hypotheses and theories. It is, on the other hand, easy to point out cases—especially in the less mature sciences—of hypotheses with such indefinite subject matter that there has never been any use for them in empirical research. The most serious point is not excessive ambiguity and vagueness of indications of subject matter, but the lack of clear thought or lack of definite intentions on the part of those using the deficient verbal expressions. It seems that synonymy sentences sometimes are produced without a very clear conception of what they might be used to express. This does not matter much if the main argumentation has little to do with questions of synonymy. The foregoing rough classification of marginal references and the implicit *recommendations* of definiteness and explicitness are made on the basis of the assumption that one is interested in synonymy relations as such—as a subject for scientific research.

I.3. Examples of Synonymity Sentences

Example 1

Carnap (1950: 21) says, «The terms 'sentence' and 'statement' are here used synonymously for declarative (indicative, propositional) sentences». The first part of this saying has one of the skeletal forms by which 'synonymity sentence' has been normatively defined. Whether Carnap by that form intends something similar to what will be introduced in this work under the heading of «synonymity hypotheses» is another question. Maybe he intends to express, not an assertion, but a decision to use certain terms synonymously (in a Carnap sense of «synonymously»). In that case the first part of his saying cannot express a synonymity hypothesis. If an assertion is intended, the intended subject matter of the hypothesis is indicated by reference to two expressions, «sentence» and «statement», and by the marginal reference «here». It is open to discussion what «here» refers to, but it is most likely that it can be reformulated as «here in this article». There is a possibility that Carnap intends to assert something similar to what in this work would be expressed by a sentence such as the following: for all (use) occurrences of «sentence» and for all (use) occurrences of «statement» within the text *Empiricism, Semantics, and Ontology*, it holds good that they expressed the same meaning for the author, Carnap, at the moment they were written.

It is not very likely, however, that the reference to the author and to the moment of their being written is actually intended. Maybe a much more inclusive interpersonal hypothesis is intended. For us to be able to test a hypothesis about relations of the kind «x expresses y», some kind of reference to organisms or minds seems, however, to be required. A reference to a system of rules conceived as a system of announcement sentences may serve the purpose, but then this would not be a hypothesis about use but about the existence of certain sentences. If the rules are conceived, not as announcement sentences, but as announcements, there is at once the question of what the announcement sentences (hypothetically presumed to express the announcements) actually express, and to *whom*. A second reformulation is: For all (use) occurrences of «sentence» in the text *Empiricism, Semantics, and Ontology*, it holds good that they express for Carnap the same as «statement»

I. BASIC TERMS

would have expressed to him, if «statement» had been substituted for «sentence» at the occurrence places of «sentence». For all (use) occurrences of «statement», the corresponding relation is valid, *mutatis mutandis*.

It is more likely that a form of substitutability synonymy in a sense similar to that of the second reformulation is intended, rather than a form of indiscriminate synonymy in a sense similar to that of the first. One of the reasons for this is that if the first is intended, Carnap intends to assert not only a substitutability but also an unambiguity among all occurrences of «sentence» and all occurrences of «statement» in the above-mentioned book. Carnap may possibly have the opinion that all these occurrences have one and the same meaning, namely a very definite meaning that he believes is expressed by «declarative (indicative, propositional) sentences». But it is one thing to entertain such an opinion and another thing to intend to express it by means of the first part of the assertion «the terms «sentence» and «statement» are here used synonymously for declarative (indicative, propositional) sentences».

Example 2 (Intrapersonal Synonymy Hypothesis)

«As used by A. Tarski, the term «equality» is synonymous with «logical identity».» There is no explicit indication in this formulation of whether it refers to classes of occurrences of the two terms or to a definite pair of occurrences. In such cases the class interpretation seems on the whole most plausible. Reformulated, the hypothesis takes the form «Any occurrence a_i of the term «equality» belonging to the class of occurrences for which the assertion is valid that they are instances of use of terms by A. Tarski, is synonymous with any occurrence b_j of the term «logical identity» belonging to the same class of occurrences». In symbols:

$$(i)(j)\text{Syn}(a_i P_1 b_j P_1)$$

P_1	class of occurrences representing use by A. Tarski
a_i	instance of «equality»
b_j	instance of «logical identity»

The hypothesis is presumably rather untenable, because of its generality. A reference to kinds of contexts, for example, arithmetic, is left out.

Tarski probably sometimes uses the term «equally» in political or economic discussions, and however «synonymous» is interpreted within the limits of the plausible, the term is then scarcely synonymous to «logical identity».

Example 3

«... *in the time of Newton*, density and specific gravity *were employed* as synonymous» (Crew 1928: 124).

An interpretation: if a_i is an occurrence of the term «density» and a_i represents an instance of *use within the time interval between Newton's birth and death*, then a_i means the same as is meant by any occurrence, b_j , of the term «specific gravity» *within the same time interval*.

Another interpretation: if a_i is an occurrence of the term «density» and a_i represents an instance of *use within the time interval between Newton's birth and death*, then a_i means the same as is meant by any occurrence, b_j , of the term «specific gravity» representing an instance of *use today* (January 1, 1928).

According to the first interpretation, Crew's hypothesis is an example of an *intrasituational* synonymity hypothesis. Class S_1 and class S_2 are identical. No explicit reference to other persons is made except to Newton. If we accept the extremely well established hypothesis that there were others living at his time, and the hypothesis that at least two persons used both terms, «a» and «b», the intended subject matter may be one of *interpersonal* synonymity.

In symbols:

$$(i)(j)\text{Syn}(a_i S_1 b_j S_1)$$

S_1 time interval between Newton's birth and death

The interpersonal character can be referred to by the following formulation:

$$(i)(j)(k)(m)\text{Syn}(a_i P_k S_1 b_j P_m S_1)$$

$P_1 \dots P_k \dots P_m \dots$ persons using or interpreting «a» and «b»

The subject matter may, however, be *intrapersonal*; Crew may have intended to state that each person in the time of Newton used «density» and

I. BASIC TERMS

«specific gravity» as synonymous, but not to state that all people meant the same by «density». In symbols:

$$(i)(j)(k)\text{Syn}(a_i P_k S_1 b_j P_k S_1)$$

In this symbolization there is reference to the same person in relation to the two expressions. A series of intrapersonal synonymy hypotheses are intended.

According to the second interpretation, the hypothesis of Crew is an *intersituational*, *interpersonal* hypothesis. If we accept the premise that no person living today used the pair of terms under consideration at the time of Newton, the hypothesis can be regarded as one involving no single case of intrapersonal relations. In symbols:

$$(i)(j)(k)(m)\text{Syn}(a_i P_k S_1 b_j P_m S_2)$$

Example 4

As an example of a rather obscure, but extensively used marginal reference, we mention an occurrence that relies on the term «originally» to identify meanings at different times: . . . «[«geometry»] is derived from the words for «earth» and «measure» and therefore was originally, as in some languages today, synonymous with the English word «surveying»» (Smith 1925: 2:273). For practical purposes of communication of preliminary information, such a synonymy sentence may, of course, be of value. The basic subject of this work is, however, that of preparing the ground for giving more reliable and precise information in the form of a science.

Example 5

«In mechanics (whether Newtonian or Einsteinian),» Pap (1949: 315) says, «the statement «A is in uniform motion relatively to B, B being at rest» has the same meaning as the statement «B is in uniform motion relatively to A, A being at rest», ---». This has one of the skeletal forms of synonymy sentences. What is intended even by «has the same meaning» is an open question. It is even open to discussion whether Pap intends to assert sameness of meaning in a Pap sense or whether he intends to describe an application of what he calls «verifiability theory of meaning» without accepting the theory as valid.

The following is a reformulation illustrating the use of the terms introduced in foregoing sections: «for all occurrences of sentences of the skeletal form «A is in uniform motion relatively to B, B being at rest» and all occurrences of sentences of the skeletal form «B is in uniform motion relatively to A, A being at rest» in texts on mechanics (Newtonian or Einsteinian) written by people competent in mechanics, it holds good that they mean the same for those people».

It is unlikely that just this reformulation would be suitable for Pap, but it suggests a possibility of some interest in its own right. To understand what Pap intends, it is important to note that if a_1 is an occurrence of «A is in uniform motion relatively to B, B being at rest» at a definite place in a textbook on mechanics, it is unlikely that we could substitute «B is in uniform motion relatively to A, A being at rest» without grave risk of confusion on the part of the reader. The sentence a_1 is likely to occur at a place in a text that precedes the introduction of a frame of reference (for example, a Cartesian system). If that is so, the substitution is apt to confuse even if synonymity, in some sense of the term, still remains.

Example 6

Reichenbach (1947: 15) says, «The word «proposition» is occasionally used as synonymous, not with «sentence» but with our term «situation», it is thus used by R. Carnap, *Introduction to Semantics*, . . . p. 18». On page 18 there is one occurrence of «proposition», but it is probably a metaoccurrence. Carnap announces (or predicts) on page 18 that in «this treatise, the following terms for designata will be used». There follows a table in which the term «proposition» is referred to as a term for designata of sentences. If the distinction between use occurrences and metaoccurrences is maintained, it can scarcely be said that Carnap uses the term «proposition» on page 18. It is therefore open to discussion what Reichenbach intends by «use (of a word)». Maybe he is not intending any hypothesis about usage in our terminology, but a hypothesis about the existence of a kind of terminological announcement concerning on page 18 in the work of Carnap. In the following, such hypotheses about the existence of certain metaoccurrences or significations expressed by the metaoccurrences are never classed as synonymity hypotheses. Thus, if an author says he intends to use «number», «unity», «one», etc., in a certain way, this will not be described by saying that he uses those

I. BASIC TERMS

words in that way. Frege and others have taught us to look with suspicion on such metaoccurrences as symptoms of actual usage. The authors may ignore their own precepts or the rules may prove inapplicable.

Example 7

Burks (1951: 43) says, «A token of «Truman» is synonymous with a token of «the man who at this time is the highest executive officer of this country»». Outside its context, this saying may plausibly be interpreted to state that here exists at least one occurrence of the expression «Truman» that is synonymous with at least one (existing) occurrence of «the man who at this time is the highest executive officer of this country». The immediate context is such, however, that it is more plausible to interpret the saying of Burks as synonymous with a sentence like «Any token of «Truman» produced in S is synonymous with any token produced in S of «the man who at this time is the highest executive officer of this country»». S stands for a class of situations, the intended delimitation of which cannot easily be discerned from Burks's text. It has scarcely been Burks's aim to formulate a complete hypothesis.

I.4. Heteronymy

In the vernacular and in technical literature, two expressions are sometimes said to have different «senses» or «meanings». Because of a close connection between certain concepts that will be introduced in chapter 7 and the use of the expressions «having a different sense» and «having a different meaning», a concept designation «heteronymy» will be used to suggest that connection. The term «*beteronymy sentence*» will be used to connote sentences of any of the following skeletal forms:

- a. «--- has a different meaning from . . .»
 «--- has a different sense from . . .»
 «--- expresses a different meaning from . . .»
 «--- expresses a different sense from . . .»
- b. Forms derived from the above by placing «not» or other signs of denial into them, or by using other indicative tenses of the verbs.

The motives for introducing the term «heteronymy sentence» are analogous to those operating in the case of the term «synonymy sentence».

It may be asked whether the negative synonymy sentences, for example, «--- has not the same meanings as . . .», should somehow be made to cover the heteronymy sentences. The only difference is that between the expressions «not the same» and «different». The reason for introducing a separate term «heteronymy sentence» is the existence of certain plausible interpretations of negative synonymy sentences. The direct denial of the presence of a relation $\text{Syn}(ab)$ may be formulated as «It is not the case that «a» is synonymous to «b»».

If each designation has a meaning and those meanings are different, this denial is appropriate. But the denial is also appropriate under other conditions. It is not contrary to the definition of «designation» that «a» or «b» may be designations one or both of which cannot be said to have 'a meaning'. This point will be elaborated later. Suffice it to say here that it is prudent not to restrict the conditions under which a denial of a synonymy hypothesis is tenable, to the condition that the expressions each have a meaning and the two meanings are different. The heteronymy sentences are sentences that explicitly refer to two different meanings, whereas the negative synonymy sentences refer only to the absence of a meaning common to both expressions.

The heteronymy sentences will be symbolized by $\text{Het}(\text{---}, \dots)$. In a case where «a» and «b» cannot be said to be either synonymous or heteronymous, they may be said to be incomparable in terms of synonymy (and heteronymy). In symbols: $\text{Asyn}(\text{---}, \dots)$, «--- is asynchronous to . . .»

The following relation is postulated: «it is not the case that «a» is synonymous with «b»» is equipollent to «either «a» and «b» and heteronymous, or «a» and «b» are incomparable in terms of synonymy». In symbols:

$$(1) \text{---Syn}(ab) \sim \text{Het}(ab) \vee \text{Asyn}(ab)$$

The connective symbol \vee is used for *aut-aut* (either-or).³

$$(2) \text{Het}(ab) \sim \text{---Syn}(ab) \& \text{---Asyn}(ab)$$

I. BASIC TERMS

Just as in the case of synonymy sentences, heteronymy sentences may refer to single occurrences of expressions, to some occurrences, or to all occurrences. They may refer to individual occurrences or to classes. Similar classifications and symbolizations of marginal references will in the following be presupposed to have been introduced in relation to heteronymy sentences.

I.5. Ambiguity

Let us call sentences of the following skeletal forms «*ambiguity sentences*»:

- a. «. . . is(un)ambiguous»
 «. . . has different senses»
 «. . . has (admits of) different meanings»
 «. . . can be interpreted in different ways»
 «--- is used (employed) in two (three, several . . .) different
 (distinct) senses»
- b. Forms derived from the above by placing «not» or other signs
 of denial into them, or by using other indicative tenses of the
 verbs.

Like «synonymous», the term «ambiguous» seems to be used in rather different ways, and there are many proposals for normative definitions that seem conflicting or at least different in content. We shall in this work introduce some concepts that are sufficiently closely related to some usages of the term «ambiguous» to make it convenient to use that term as part of our concept designations. As a point of departure for normative definitions of one of the concepts alluded to, the following skeleton is appropriate:

- (1) «. . . is ambiguous» =_D. «There is at least one pair of instances of
«. . . » such that the first member of the pair expresses a different
meaning from the second.»

The place «. . . », we decide, can only contain either an instance or a class of instances of a designation or a declarative sentence.

Let us take an example: About sentence (1), «'p' is verified by q», E. W. Hall (1943) says: «(1) is ambiguous and may mean (2) 'p' is verified (to some degree) if q, or it may mean (3) that (a) 'p' is verified (to some degree) if q (b) and q».

The sentence «(1) is ambiguous» may possibly have been intended to mean something that can be reformulated to fit the schema «There is at least one pair of instances of sentences of the kind «'p' is verified by q», such that the first member of the pair expresses a different meaning from the second».

Introducing an expression «a» into «. . .» in (1), one gets:

(2) «a» is ambiguous =_d. «There is at least one pair of instances, a_i and a_j , of «a» such that a_i and a_j do not express the same meaning but each a different meaning.»

(2) may be formulated thus:

(3) «a» is ambiguous =_d. «There is at least one pair of instances of «a» that are heteronymous.»

In symbols:

(3s) $Amb(a) =_d (Ex)(Ey). x\mathcal{E}a \ \& \ y\mathcal{E}a \ \& \ Het(xy)$

Ambiguity is, as seen from the above relations, partly reducible to lack of synonymy, insofar as every sentence asserting ambiguity can be formulated as a sentence asserting *lack* of synonymy in the narrow sense of heteronymy (expressing different meanings). One may use the rough formula that ambiguity is lack of synonymy between instances of the same designation (or sentence).

The minimum claim of an ambiguity hypothesis in the sense of (1) is the *mere existence* of a pair of occurrences a_1 and a_2 of an expression «a» such that a_1 does not express the same meaning as a_2 .

More fruitful hypotheses are those constructed to account for stronger claims, for example, that every member of a certain subclass G_1 of occurrences of expresses a different meaning from that of every member of a second subclass G_2 of occurrences of «a».

In symbols:

(4) (i)(j). $Het(a_i G_1 a_j G_2) \ \& \ G_1 \cap G_2 = \Lambda$ or

(5) (x)(y). $x\mathcal{E}a \ \& \ y\mathcal{E}a \ \& \ x\mathcal{E}G_1 \ \& \ y\mathcal{E}G_2 \ \& \ G_1 \cap G_2 = \Lambda \supset Het(xy)$

As an example consider «The term «force» means something different

I. BASIC TERMS

in physics from what it means in the vernacular». Let $a_{11}, a_{12} \dots$ be occurrences of «a» belonging to the class ‘occurrences in physics’, and let $a_{21}, a_{22} \dots$ be occurrences of «a» belonging to the class ‘occurrences in the vernacular’. Both classes are open, if no time limits are fixed.

Another example is «This term was used by Aristotle in two quite distinct senses ---» (Keynes 1962: 52). A possible reformulation is «The Greek term corresponding to the term «induction» is used in such a way by Aristotle that the total group of use occurrences can be divided into two subgroups; every member of each group has the same meaning, but the meaning common to the members of the one group is different from that of the members of the second group». If there are ten use occurrences, five in each subgroup, the hypothesis asserts, if the above reformulation is adequate, heteronymy between numbers one and six, one and seven, . . . , five and ten—that is, twenty-five hypotheses of heteronymy. In addition, synonymy is postulated between numbers one and two, one and three, . . . , nine and ten; that is, twenty synonymy assertions are involved.

The additional claim, namely the existence of synonymy relations between every pair of members within each subclass, may sometimes be considered tacitly assumed, sometimes not. Suppose P asserts «a» and adds that ««a» is ambiguous». What has P asserted in the introduced terminology? If by ««a» is ambiguous» something closely similar to the introduced sense is intended, P only asserts that there exists a pair of instances of «a» such that the one has a different meaning from the other. Of more interest is the saying of P if he adds «And as used by me now, the sentence is ambiguous». Such an addition may be interpreted as «In a context like that in which I used and asserted «a», «a» is ambiguous». The «context» reference may here be interpreted as one characterizing indirectly an occurrence class, for example, by naming a field of discussion. In the terminology introduced, the addition may be thus formulated: «as used by anybody, P_i , in situations of class S, «a» is ambiguous». In symbols:

$$(i) \text{ Amb}(aP_i S)$$

If this is said about the sentence just asserted, and if it is a tenable hypothesis, the total saying of P indicates that he has said something that, in

the context in which it was said, had more than one meaning. It may be asked, Which of them did he intend to *assert*?

P cannot answer without reformulating his original saying in such a way that just that meaning is communicated. If he in fact has intended one, and only one, of the meanings, «a» has not been sender-ambiguous for P in the context at hand, but it may have been receiver-ambiguous. It was intended to communicate an assertion, but at the same time it was asserted that the sign-vehicle was defective: that it had been or would be interpreted differently by different people.

A public lecturer may mean—at least in principle—by «democracy» something rather definite, and always use the term with the same meaning. If the audience is composed of people with varying habits of interpreting the term «democracy», the term is said to be sender-unambiguous in relation to the use of the lecturer, but receiver-ambiguous in relation to his public.

What if P asserted, «a, and the «a» now asserted was sender-ambiguous». In such a case, «ambiguous» cannot have been used in the sense introduced

$$\text{Amb}(a) =_d (\text{Ex})(\text{Ey}). x\text{E}a \ \& \ y\text{E}a \ \& \ \text{-Syn}(xy) \ \& \ \text{-Asyn}(xy)$$

because ambiguity in the introduced sense refers to classes of instances of a sentence, not to a definite instance of a sentence, for example, the definite «a», let us call it «a₁», occurring in the saying of P.

P might have meant that «a» was such that he did not have any definite intention, but was aware of different shades of meaning (cf. chapter 2, section 2). If the different assertions corresponding to the different meanings were all tenable in his opinion, and fitted well into the context, P may have felt completely justified in asserting «a».

I.6. Substitutional Synonymy: Synonymy Between Ambiguous Expressions

Suppose P says two things: (1) ««to be true» means the same as «to agree with reality»», and (2) «both expressions are ambiguous». The saying may be plausibly interpreted in different ways. If P has made use of the term-

I. BASIC TERMS

nology of section 2, and he uses «synonymity» for «universal indiscriminate synonymity», his saying is synonymous with the sentence:

(1) Every instance of «to be true» means the same as every instance of «to agree with reality», but there are pairs of instances of «to be true» the members of which express different meanings, and there are pairs of instances of «to agree with reality» the members of which express different meanings.

In accepted symbols:

(1s) $\text{Syn}(ab) \ \& \ \text{Amb}(a) \ \& \ \text{Amb}(b)$

(1s) may thus be reformulated:

(2) $(i)(j)(k)(l)\text{Syn}(a_i G_k b_j G_l) \ \& \ (Ei)(Ej)(Ek)(El) \text{-Syn}(a_i G_k a_j G_l)$
 $\ \& \ (Ei)(Ej)(Ek)(El) \text{-Syn}(b_i G_k b_j G_l) \ \& \ \text{-Asyn}(ab)$

Now, if a_1 and a_2 are such a pair of instances of a , and b_1 and b_2 are such a pair of instances of b , as declared existent according to the right-hand side of (2), a_1 and a_2 cannot both be synonymous to b_1 according to a transitivity postulate explicitly accepted as valid in another part of this work:⁴

$\text{-Syn}(xy) \ \& \ \text{Syn}(zx) \supset \text{-Syn}(zy)$

That is, a contradiction may be derived from (2), namely the assertion between square brackets:

(3) $[(i)(j)(k)(l)\text{Syn}(a_i G_k b_j G_l) \ \& \ (Ei)(Ej)(Ek)(El) \text{-Syn}(a_i G_k b_j G_l)]$

If the saying of P is interpreted in strict accordance with the adopted terminology, it is a contradictory saying. There is, however, no special reason to believe that P has used that terminology, which interprets « a » is synonymous to « b » in the rather rigorous way as an assertion of universal and indiscriminate synonymity between « a » and « b ».

There are many other possibilities worthy of consideration. Maybe the sentence of P is intended to mean: «to be true» means the same as «to agree

with reality», subject to the condition that these expressions are found within certain contexts, S; both are ambiguous but not within these contexts.

In symbols:

$$(4) \text{Syn}(aSbS) \ \& \ -\text{Amb}(aS) \ \& \ -\text{Amb}(bS) \\ \& \ \text{Amb}(a) \ \& \ \text{Amb}(b)$$

There are also other plausible interpretations of the saying of P. The first part may be interpreted in accordance with the following schema:

(5) Given: any definite occurrence place G_i , defined as a text interval, containing either the designation instance a_i or the designation instance b_i and nothing else. Suppose a_i is found at G_i and that b_i is substituted for a_i or that b_i is found and a_i is substituted. This will result in a set of new occurrences of «a» and «b».

The following relations hold good:

$$(i)\text{Syn}(a_i G_i b_i G_i) \text{ and } (i)\text{Syn}(b_i G_i a_i G_i)$$

The substitution of «b» for «a» at place G_i in a text changes the text into a new one. As G_i is defined by its place in the old text, it is advisable to call the place in the new text occupied by «b» by a name other than G_i . Let G_i' be the name. The relations asserted by P may now be symbolized as follows:

$$(i)\text{Syn}(a_i G_i b_i G_i') \text{ and } (i)\text{Syn}(b_i G_i a_i G_i')$$

If the details of substitution are neglected, a simpler symbolization is obtained:

$$(i)\text{Syn}(a_i b_i)$$

The substitutability defined by interpretation (5) will be called «substitutional synonymy at any given place».

If universal promiscuous synonymy holds good, there is substitutional synonymy at any given place, but the converse does not hold.

I. BASIC TERMS

Roughly symbolized:

$$\text{Syn}(a_i b_j) \supset \text{Syn}(a_i b_i)$$

not:

$$\text{Syn}(a_i b_i) \supset \text{Syn}(a_i b_j)$$

The «not» is used as an abbreviation for «The following does not hold good (by definition)». What is written to the right of «not:» has to be distinguished from a formula to the right of a negation stroke, for example:

$$\neg(\text{Syn}(a_i b_i) \supset \text{Syn}(a_i b_j))$$

which would symbolize that the expression to the right of the stroke is false by definition. This is not the case in the example under consideration. If the first part of the saying of P is interpreted as an assertion that there is substitutional synonymy at any given place between the designations «to be true» and «to agree with reality», this makes the first part compatible with the second. Suppose «a» tentatively is assumed to have been used in as many senses as there are occurrences, for example, that

$$x \in a \ \& \ y \in a \ \& \ \neg \text{Id}(xy) \supset \neg \text{Syn}(xy) \ \& \ \neg \text{Asyn}(xy)$$

and that the same holds good of «b»:

$$x \in b \ \& \ y \in b \ \& \ \neg \text{Id}(xy) \supset \neg \text{Syn}(xy) \ \& \ \neg \text{Asyn}(xy)$$

This does not prevent, given any definite occurrence of «a» or «b», there being substitutional synonymy at any definite place. It only presupposes that «a» changes meaning from context to context just as «b» changes meaning from context to context. The complete saying of P may accordingly be symbolized by a consistent set of three assertions:

$$(i) \text{Syn}(a_i G_i b_i G_i) \ \& \ \text{Amb}(a) \ \& \ \text{Amb}(b)$$

A more useful term than «substitutional synonymy at any definite place» is «substitutional synonymy at any given place within a pair of occurrence classes». As a limiting case, the classes are so wide that the original term can be used, and as another limiting case, the classes embrace only one instance of one of the expressions.

In symbols:

$$(i)\text{Syn}(a_i G_i G_a b_i G_i G_b) \ \& \ (j)\text{Syn}(b_j G_j G_b a_j G_j G_a)$$

«For all i it holds that « a » at any place G_i belonging to the occurrence class G_a of « a » is substitutionally synonymous with « b » of occurrence class G_b constructed by substitution, and for all j it holds that « b » at any place G_j belonging to the occurrence class G_b of « b » is substitutionally synonymous with « a » of occurrence class G_a constructed by substitution.»

The symbol «Syn» can be used for both substitutional and general synonymy because the term «substitutional» refers only to the way certain occurrence classes are obtained.

In McKeon's contribution to *Democracy in a World of Tensions* (McKeon 1951: 196), he says, «In one of the earliest systematic examinations of democracy in Western civilization, Plato observes that democracy, conceived as «the rule of the many», is a single term, but it has two meanings dependent on whether the rule is according to law or without law (Taken from *Statesman* 302D–303A)».

Accepting McKeon's historical account as adequate, we may say that Plato made a complex hypothesis of the following kind: (A) Within the class of instances of «democracy» characterized by «democracy» being synonymous with «rule of the many», «democracy» is ambiguous. It sometimes has a meaning implying rule according to law; sometimes it has a different meaning, implying rule without law. The first part of this assertion can be symbolized as:

$$\text{Amb}(aG_1)$$

a	democracy
G_1	class of instances of democracy characterized by Syn(ab)
b	rule of the many

I. BASIC TERMS

The second part of the assertion may be intended to mean something similar to a relation of implication between the conceptual characteristics of the first of the concepts («meanings») and the property «(rule) according to law», and between the conceptual characteristics of the second concept and the property «(rule) without law».

Let us consider the following formulation: (B) For every occurrence of «democracy» there is an occurrence of «rule of the many» such that the two expressions are synonymous, and for every occurrence of «rule of the many» there is an occurrence of «democracy» such that the two expressions are synonymous. «Rule of the many» has two senses.

In symbols:

$$\begin{aligned} (5) \quad & (x)(Ey). x \in a \ \& \ y \in b \ \& \ \text{Syn}(xy) \ .\& \ . \\ & (y)(Ex). x \in a \ \& \ y \in b \ \& \ \text{Syn}(xy) \ .\& \ . \\ & (Ex)(Ey). x \in b \ \& \ y \in b \ \& \ \neg \text{Syn}(xy) \end{aligned}$$

This hypothesis asserts that «democracy» has no meaning that «rule of the many» is not capable of having, and vice versa. The expressions have the same range of meaning. But it does not hold good that in every pair of instances, the one has the same meaning as the other. The difference between (B) and (i)(j)Syn(a_ib_j) reveals a distinction of importance: that between *complete or indiscriminate synonymy* among all instances of two expressions, and a restricted form of synonymy, that of *sameness of range of senses*.

Let us consider a third hypothesis: (C) For each occurrence of «democracy» it holds good that if «rule of the many» is substituted for it, the pair of occurrences have the same meaning. For each occurrence of «rule of the many» it holds good that if «democracy» is substituted for it, the pair of occurrences have the same meaning. «Rule of the many» has two senses.

In symbols:

$$(6) \quad (x)(y)(i). x \in a \ \& \ x \in G_i \ \& \ y \in b \ \& \ y \in G_i \supset \text{Syn}(xy) \ .\& \ . \text{Amb}(b)$$

According to this interpretation of Plato, he asserts a form of *complete mutual substitutability*. The assertion implies sameness of range of senses and is itself implied by complete synonymy. In this example, occurrences of

«a» and «b» have been distinguished by their places in texts. In the case of (6), G_i refers to one and the same place within two copies of a definite text, or to one definite text before and after a substitution has been carried out. The consistent use of texts as systems of reference is a methodological device. The synonymity hypotheses in terms of persons and situations are apt to picture more faithfully the intentions of those who make assertions about restricted forms of sameness of meaning. In symbols, a reference to person and situation may be rendered thus:

$$(7) (x)(y)(i). x \in a \ \& \ x \in P_i \ \& \ x \in S_i \ \& \ y \in b \ \& \ y \in P_i \ \& \ y \in S_i \supset \text{Syn}(xy)$$

Here, P_1 , P_2 , and so on, would, stand for definite persons, and S_1 , S_2 , and so on, would stand for situations defined with or without reference to texts. Retrospectively, we are apt to interpret Plato to have referred to occurrences of «democracy» up to his own time. When we take such a time limit into account, the ambiguity hypothesis may be rendered thus:

$$(Ex)(Ey). x \in a \ \& \ y \in a \ \& \ x \in G_1 \ \& \ y \in G_1 \ \& \ \neg \text{Syn}(xy)$$

G_1	occurrences of terms up to the time that Plato wrote 302D–303A of his <i>Statesman</i>
-------	--

Strictly speaking, hypotheses A, B, etc., assume that Plato wrote in English. According to well-established rules of quotation, however, the reference to «democracy» is to be taken as a reference to the Greek word generally accepted to be the «counterpart» of the English word. What «counterpart» stands for here is probably not to be identified with what «synonymous expression» stands for in this chapter.

I.7. Semantic Systems

In modern linguistics a distinction has been found fruitful that can be expressed by contrasting speech with language (*la parole* versus *la langue*). Speech is conceived as a kind of *activity*. Language is conceived as a *system* that is capable of being studied without reference to activities of people us-

I. BASIC TERMS

ing the system and to situations in which speech is observed. Just how this independence is to be conceived is a matter of divided views.

In some nontechnical views about verbal phenomena, there are features that can be interpreted as an implicit, yet more or less vague, reference to language considered as a system. Some tend to interpret sentences about sameness of meaning as assertions about language systems rather than about classes of instances of use. If such interpretations are tenable, they may possibly be only inadequately expressed by sentences involving reference to persons or situations. Consider sayings such as the following: «The word «democracy» has in the English language a definite meaning, but—unhappily—the term is often misused. People often misuse language.» «This word is never used correctly.»

Reference to persons and situations may possibly be inadequate in sentences referring to systems because there may be no rules of the system that refer to persons or situations. In most languages there are such rules, for example, concerning the use of titles—but even then references are references to rules or the formulation of rules, not to usage as an activity and not to language habits.

Systems can—as far as they are fruitful for research—be roughly classed into schematic *models* of actual speech habits and aggregates of *rules* in the normative sense. In the first case, the systems turn into hypothetico-deductive systems if connected by means of coordinating definitions (*Zuordnungsdefinitionen*) to existing language habits. If an attempt is made to formalize systems of rules, these take the shape of *systems of «pure semantics»* in the sense of Tarski, Carnap, and other logisticians. Models have their heuristic use in building up syntactical and lexicographical systems giving consistent, but simplified, pictures of speech habits of persons of literary distinction or of other selected groups.

Suppose *v* is a system of pure semantics defined by reference to a set of formation and transformation rules. A synonymity sentence that tacitly refers to the system may then be reformulated into sentences of the following kind: «there is, as part of the system *v*, a rule having the form «--- shall be considered synonymous with . . .», or there are rules such that a sentence of this form can be derived».

Hypotheses of this kind do not say anything about any occurrences of «---» and «. . .» except the metaoccurrence in the exposition of the system.

The system *v* may have been constructed, but never used, in which case there are no use occurrences to refer to even if one wished to do so. Even if the system is used, the hypotheses do not claim that use has ever followed the rules laid down.

It is perfectly consistent to report, «The system *v* certainly includes the rule that «8 o'clock» shall mean the same as «8 P.M.». The persons *P* and *Q* are the only ones who have declared that they intend to use the system. They say they actually have used it in their books. But analysis of the occurrences shows that they have not been capable of following the rule. It is consistently ignored or misapplied».

The following three kinds of sentences have to be distinguished:

1. «The intended meaning of «*a*» as used by *P* is the same as the intended meaning of «*b*» as used by *P*.»
2. «The intended meaning of «*a*» as used by *P*, is by *P* believed to be that meaning of «*a*» that «*a*» shall have according to the system *v*, and *P* believes that this meaning is, according to *v*, the same as that which «*b*» shall have.»
3. «The intended meaning of «*a*» as used by *P*, is that meaning of «*a*» that «*a*» shall have according to the system *v*. . . .»

It is convenient to limit the expression ««*a*» as used by *P*» to references to actual instances of application of «*a*» by *P* and to hypotheses about such instances. Often, a normative element is somehow incorporated into concepts of «use» and «usage». If a normative element is admitted, we shall lack a term for *descriptions* of observable specimens of «*a*» and regularities believed to hold among the meanings such instances of «*a*» intend to convey. We shall get only normative and mixed normative-descriptive concepts.

If the «definitions» of Euclid at the beginning of his systematic exposition are conceived as synonymy rules, they furnish an example of such rules remaining unapplied throughout the entire theoretical edifice. Euclid is said to make no use of his so-called «definitions» in his works (cf. *Euclid's Elements*, 1933: 2:22). Hypotheses about the existence of particular explicit synonymy *rules* within a system of explicit rules cannot be tested by inspection of how people actually use the expressions that these rules are intended to regulate. Conclusions about usage are here, in principle, perfectly

I. BASIC TERMS

irrelevant, and, consequently, any references to persons and situations are irrelevant unless used as descriptions of rules about persons and situations. The hypotheses asserting that, in this or that system, there is a rule that two expressions are to be synonymous, are not synonymity hypotheses. The following sentence schemata will be sharply distinguished:

1. $\text{Syn}(xy)$ («x is synonymous with y»).
2. $((\text{Rule:}))$ x is to be synonymous with y!
3. In the system v of sentences in the form of rules, there is a sentence «x is to be synonymous with y».
4. In the system v of rules, there is a rule that x is to be synonymous with y.
5. The system v of rules is such that «x is synonymous with y» is in accordance with the system.
6. There exists a system of rules such that «x is synonymous with y» is in accordance with the system.

Only sentences of the first schema are covered by the symbol « $\text{Syn}(xy)$ » used without further symbols. The second is no *assertion*, but a kind of *announcement*. To remind ourselves of both the differences and the similarities between sentences 1 and 2, we may use the following schemata:

(1s) $\text{Syn}(xy)$	Ass
(2s) $\text{Syn}(xy)$	Ann

Sentences of the third kind are confirmed by inspection of texts. If certain sentences are found in a certain text, confirmation is obtained; otherwise, disconfirmation. It is irrelevant how the texts are interpreted. Sentences of schema 4 are so formed that one cannot limit oneself to the detection of certain sentences. The system v may admittedly never be completely expressed as a sequence of verbal signs, and even if it is assumed that v is expressed, there may be difficulties of interpretation. One has to discuss whether certain sentences express rules, and which rules they express (to whom and in what situations).

In relation to the distinction between plain occurrences and metaoccurrences (section I, c), only sentences of kind 1 refer to occurrences of x and

y in use. «Syn(xy)» refers exclusively to instances of x and y in use. Sentences of kind 3 assert the existence of a certain pair of metaoccurrences of x and y, namely their occurrence in a sentence having the form of a rule speaking about x and y.

Vernacular references to «correct language», «strict meanings», «real meanings», and so on, can roughly be viewed as vague references either to possible semantic systems or to classes of occurrences representing usage by persons with special qualifications (for example, representatives of the great poets or statesmen, not of the man in the street or of illiterate people). Or, expressions such as «correct meaning» and «real meaning» may be symptomatic of views according to which words have intrinsic meanings absolutely independent of their possible use by men and of their systems.

Many instances of «may be» sentences of the following kind are probably intended as sentences referring tacitly to a system:

1. (a) «a» and «b» may be synonymous
- (b) «a» may be interpreted as follows: ---
- (c) «a» may be ambiguous
- (d) «a» may mean b

If (a) is asserted, the intended meaning may well be such that it precludes reformulation in the form of a synonymy hypothesis between directly or indirectly characterized occurrence classes; (a) may be asserted with the addition «but whether there exists or ever will exist an occurrence of a or b such that a and b mean the same, is left undiscussed». Interpretations in accordance with schema 5 or schema 6 are possible: «a and b are, in accordance with system v (or with an unspecified system), under some conditions, synonymous». The system v may of course be a mere fiction, a fictive entity somehow conceived to be «implied» by usage.

As an example of a sentence likely to be intended as implicitly referring to a system, we could mention the «may mean» sentence by E. W. Hall quoted in section 5 (page 30). Possibly his sentence «is ambiguous» is also intended tacitly to refer to a system. The use of «is» instead of «may be» in sentences of the forms (a)–(d) does not preclude interpretation in terms of systems. The saying of P that «to be true» and «to agree with reality» are synonymous and ambiguous (cf. page 30) may plausibly be inter-

I. BASIC TERMS

interpreted to refer implicitly to systems. One of the simplest of such interpretations is «According to the normative definition of «to be true» and that of «to agree with reality», within the system v both have the same meaning, but according to the same definitions this meaning changes with changing context».

The semantic rules of the system may, for instance, specify fields of discussion in which «to be true» means different things, and specify the same changes of meaning for «to agree with reality». Such an interpretation makes the saying of P into something other than a statement of a synonymy hypothesis and an ambiguity hypothesis. These are hypotheses about usage, not about occurrences of normative definitions—in the present case, metaoccurrences of «to be true» and «to agree with reality».

It has already been mentioned that references to systems of rules are sometimes rather cryptic, because the rules are admittedly not stated anywhere, at least not in the form of a consistent or complete system. They seem to be implied in so-called «correct speech». In cases of reference to fictitious systems, another kind of reference may be more fruitful: reference to ranges of *admitted or preferred usage*. Instead of referring to something as rigorous as consistent systems, one may say that there are within a linguistic society trends of preferences and admittance, which may very often *rule out* certain ways of using particular expressions as «impossible», «false», «incorrect», and so on, but which rarely can be said to point to definite ways as «the correct».

Those who try to express themselves fairly clearly ask again and again while writing, Is this a good word in this context? May this expression be used here? Such questions are justified because most permutations of words would be considered nonsensical by all users of a language. Take, for example, the first ten words beginning with f in Wyld's *Universal Dictionary* (1932): *fa*, *fabaceous*, *Fabian*, *fable*, ---, *fabrication*. There is scarcely a single combination of all ten words that would give occasion to any controversy concerning sense or nonsense. They are all «ruled out» as nonsensical. In spite of the fact that the great majority of word combinations is thus ruled out, a tremendous number of combinations remain that would give rise to controversy if they were ever used. The important point is that existing instances of use, in general or by distinguished authors, can guide us in only an incomplete and indirect way. One usually has other things to say than

just those that have been said, and a large number of sentences are first occurrences. There is scarcely more than a single instance to be found of most of the sentences in this section, and, what is more important, the meanings intended by each of them have rarely, if ever, been intended before. Thus, there are no precedents that can be used as sole guides to the formulations.

In this work, reference will only rarely be made to systems of admitted or preferred speech. We are more concerned with descriptions of existing usage, pinned down to descriptions of existing occurrences and to theories about existing occurrences suitable for predicting future occurrences.

There is a resemblance between this attitude toward language and the attitude of the realist theory of law. According to that theory, law may roughly be defined as what the judges proclaim to be law. That is, certain verbalized actions of certain persons are taken as constituting law. The science of law makes predictions about the behavior of judges. Such predictions cannot help the judges to form their decisions in case of doubt, but they may help the public and lawyers find out what will in practice be called law. Many distinguished linguists from the time of Cicero onward have proclaimed a similar dictum concerning the correct use of language: usage is the supreme arbiter.

For our purposes it is not in any way necessary to depreciate the importance of people's beliefs concerning what is «correct language» apart from concrete usage. Such beliefs must be taken into account in order to make satisfactory predictions, but such beliefs have not been found consistent and general enough to warrant ampler consideration in the present work.

I.8. Interpretative Sentences

Synonymity and ambiguity sentences have in common that they refer to sameness or difference in meaning or sense without directly indicating which meanings or senses are compared. To describe meanings and senses—in some senses of these words—is a formidable task. The importance of synonymity sentences as the point of departure for our conceptual structure owes in part to this at least partial independence of description of meanings. To test sameness or difference is often possible without close analysis of the objects compared. Suppose two books are placed on a table. To ascertain whether they are «two copies of the same book» or «one copy

I. BASIC TERMS

each of two different books» does not necessarily presuppose the existence of a complete and workable definition of «book». It is sufficient to consider a subclass of conceptual characteristics, namely such that are necessary and sufficient to judge *difference* in reference to books. A large number of fairly reliable tests and experimental designs in psychology are based on reports by subjects who are required to judge «same» or «different» within certain standardized situations. The additional requirement, to describe the two somethings judged to be same or different, introduces complications and is for many purposes superfluous.

In this section sentences will be considered that often are intended somehow to describe or identify meanings or sense by means of words.

Let us call sentences of the following skeletal forms «*interpretative sentences*»:

- a. «--- means . . .»
 «By --- is meant . . .»
 «By --- is meant that . . .»
 «--- has the sense . . .»
 «--- signifies . . .»
 «--- connotes . . .»
 «The meaning of --- is . . .»
 «--- expresses the meaning . . .»
- b. Forms derived from the above by placing a sign of denial into them, or by using other indicative tenses of the verbs.

In convenient symbols:

Sign(aM₁b)

Only those sentences will (by normative definition) be subsumed under 'interpretative sentences' in which «---» refers to a single expression or a class of expressions and «. . .» does not refer to expressions. The open place «. . .» contains words in use, not in mention.

Consider the following series of examples: «By ambiguity and by equivocality is meant capability of being understood in two ways» (cf.

Standard Dictionary) «By ambiguous and by equivocal is meant capable of being understood in two ways.» ««Democracy» signifies the tendency to give to the masses, that is, the common people, added importance in political deliberations» (Benedetto Croce 1909).

«Unnatural, when it means anything, means infrequent: ---» (Bentham 1879: 1: 31). «Anyone who has the least knowledge of geometry must know that a straight line means a perfectly straight line, ---» (Jevons 1890: 212). «The most obvious and primitive meaning of «convention» is the act of coming together for purposes of deliberation, instruction, amusement or recreation» (Nagel 1930: 62). «Cumulus, which means heap, is the name for the cauliflower clouds» (Free and Hoke 1929: 31).

The above examples lack any marginal references. In the following examples such references of various kinds contribute, more or less adequately, to a delimitation of a hypothesis with fairly definite intended subject matter:

«Aliquoter Teil bedeutet *bei Marx*: Bruchteil, Abgemessener Teil eines Ganzen» (Marx 1933: 749).

«Der Ausdruck «Maine» bedeutet *jetzt meist* den manischen Zustand des manisch-depressiven Irresins» (Bleuler 1923: 121).

«Der Ausdruck «Melancholie» bedeutete *längere Zeit* die von Kraepelin besonders herausgehobene Form der Melancholie des Rückbildungsalters und wird *jetzt von denen, die beiden Krankheitsbilder in eines verschmolzen haben, auch* für die Depression des manisch depressiven Irreseins gebraucht» (ibid.).

«--- a «Negro» in *many parts of the United States*, means an individual with any discoverable traces of Negro ancestry» (Anastasi 1937: 465).

«*At the present time* the term «ideology» has *become current* to mean any scheme of thinking characteristic of a group or class» (MacIver 1951: 454).

«*There*, «ideology» means *strictly* a system of ideas elaborated in the light of certain conceptions of what «ought to be»» (Roucek 1944: 279).

Some sentences are difficult to classify into synonymity sentences or interpretative sentences. Take the following example: «---, the meaning of the protocol proposition «N. N. saw blue at place p at time t» is «N. N. had at time t the perception 'blue' at place p»» (Kaufmann 1943–44: 269). The sentence may be put in the form «the meaning of --- is . . .», but the subject-matter indications are unusual. Maybe Kaufmann would insist that he does not refer to any sentence in «---», but to what is expressed by a sentence. Or, maybe Kaufmann talks about one proposition being the mean-

I. BASIC TERMS

ing of another in such a way that the latter can be represented by a sentence. The meaning he introduces is placed in quotes as if it were a sentence. It is unlikely, however, that he would accept an interpretation of his «. . .» clause in that direction.

Is or is not the sentence put forth by Kaufmann an interpretative sentence in the introduced terminology? Our terminology has not been introduced in a sufficiently precise way to cope with sentences such as Kaufmann's. Let it be classed as a borderline case. After all, the terms «synonymity sentence» and «interpretative sentences» are only meant to have the function of concentrating the attention on certain kinds of sentences likely to express synonymity hypotheses in senses to be introduced later. Exact delimitations of classes are not called for. It is sufficient that some (easily subsumable) members are pointed out as characteristic examples.

If, on the other hand, it is stated that ««a» means b», the expression «b» occurs in the form of use occurrence. That «b» is used can be taken as a symptom that it is somehow conceived as one with a sufficiently definite meaning for given purposes, and capable at least once of being a vehicle of communication in relation to the public at hand (in a limiting case, the asserter himself).

The asserter of the interpretative sentence «--- means . . .» assumes, maybe, that the terms used in «. . .» are capable of conveying a meaning, namely that meaning that the asserter attributes to «a», or that meaning that he will induce the listener or reader to attach to «a». Thus, as interpreted by the asserter in the situation in which ««a» means b» is asserted by him, «b» may be said to be assumed to express by implication what «a» expresses as interpreted by the sender. In short, a synonymity hypothesis, ««a» means the same as «b»», is implied by ««a» means b», at least for some interpretations of that kind of sentence. Its field of intended or assumed application may, however, be difficult to find.

The following working rule is of great importance in the (partial) analysis of interpretative sentences in terms of synonymity relations:

- (1) if a person P_1 asserts an interpretative sentence ««a» expresses «b»», with P_2 as intended receiver ($P_1 \neq P_2$ or $P_1 = P_2$), P_1 implicitly (or tacitly) assumes that at least in the situation characterized by the particular occurrence of G_1 of the assertion of the interpretative sentence, «b» means the same for P_1 as for P_2 , and the same as «a» for P_1 .

Somewhat condensed:

(1s) if at $G_1 P_1$: «Sign(ab)», P_2 being the intended receiver, P_1 implicitly assumes $\text{Syn}(b_1 P_1 G_1 b_1 P_2 G_1)$ & $\text{Syn}(a P_1 G_1 b_1 P_1 G_1)$.

The statement is a useful rule of thumb, in the sense that it furnishes a good working hypothesis. In accordance with more traditional terminology, we shall call (1) the *principle of implied synonymy in interpretation*.

It should be noted that this principle does not assert: if P_1 states ««a» means b», then, implicitly, $\text{Syn}(a P_1 b P_1)$. That is, the analyst does not assert anything about the *usage* of «a» and «b» by P_1 , but something about what P_1 is disposed to assert *about* his own usage. Often, the analyst has reason to expect a relation of synonymy, but not the very general one $\text{Syn}(a P_1 b P_1)$. His expectation is that, at least in certain kinds of situations, $\text{Syn}(a P_1 b P_1)$ holds:

(Ei) (Ej). $\text{Syn}(a P_1 S_i b P_1 S_j)$

Acceptance of the above-mentioned principle is consistent with the assumption that interpretative sentences express something else, and often something more, than a synonymy hypothesis. The principle is not introduced in order to try to effect a wholesale transformation of interpretative sentences into synonymy sentences. Very often, however, the assertion of an interpretative sentence introduces unnecessary complication or unnecessary indefiniteness into a discussion. By suitable synonymy hypotheses, reference to definite meanings can profitably be eliminated. Definiteness is increased by giving marginal references to both «a» and «b» and not only to «a» as in an interpretative sentence.

Just what do interpretative sentences of the kind ««a» means b» express that synonymy hypotheses do not express? We shall here answer only with a triviality: by ««a» means b» it is intended to express that b is *the meaning* of «a». Further discussion is postponed. It is the aim of the first chapters to describe interrelations among some basic terms. Possible *concepts* of 'meaning' are discussed later.

Care should be taken not to confuse an actual assertion with the motives for making the assertion. As a possible part of the assumptions underlying the choice of «b» as interpretans⁵ expression, one might conceive a

I. BASIC TERMS

belief held by P, that Q attaches a definite meaning to «b» and that it is just that meaning that P himself attaches to «a». A *motive* that P in such a case normally may have is that of making Q aware of something he is not aware of, namely, the meaning of «a». The use of «b» as interpretans expression must somehow be expected to help Q in a problematic situation. It is not our concern to discuss here what kind of help is at issue. Whatever goal P expects to reach by means of the interpretative sentence, his expectation or assumption of means-end relationships should not be taken as a part (or as the whole) of the cognitive meaning of the interpretative sentence. We may have certain goals in every utterance we make, but if the utterances expressed these goals, communication would indeed be difficult and sometimes rather embarrassing. It would not only be more difficult to be polite, but also more difficult to write a textbook on mathematics. In the construction of proofs, the premises A, B, C would as part of their own contents express the assumption «A, B, C are sufficient to prove the conclusion D».

In the case of an explicit synonymy hypothesis ««a» means the same as «b» means», the asserter may not have the slightest preference for «b» as a vehicle of communication. He may himself consider «b» useless because of ambiguities. If he prefers «a» or «b» for certain purposes, this will have to be stated explicitly. In the case of interpretative sentences, a difference between «a» and «b» is somehow *assumed*, at least in relation to a definite public in definite situations. Variation of public and situation may, however, result in *the adoption of* «a» as interpretans expression for «b». The assumption and our motivation may be constant, but the assertions intended by the interpretative sentences undergo variation.

Thus the implicit assumption of ««b» means a» is not the same as that of ««a» means b». For the former one may write in analogy to (1s):

(2) if at $G_2 P_1$: «Sign(ba)», P_2 being the intended receiver, P_1 implicitly assumes $\text{Syn}(a_1 P_1 G_2 a_1 P_2 G_2)$ & $\text{Syn}(b P_1 G_2 a_1 P_1 G_2)$.

I.9. Interpretans Expressions and Lists of Interpretations

If P says ««a» means «b», or uses any other of the skeletal forms of interpretative sentences, we shall say that he «performs a verbalized act of «interpretation»»; he «explicitly interprets «a» to mean b». The expressions

«verbalized» and «explicitly» are used to remind us of the basic distinctions between communication by means of «a» and talk about «a». If P issues a set of orders directed to Q, and Q performs certain acts that P conceives as a positive and adequate response to his orders, Q may be asked how he *has interpreted* and interprets the orders. His answers in the form of explicit interpretations may be badly formulated and confused, and the conclusion may even be warranted that he *actually* interpreted and interprets otherwise than he *says* he does. The situation is analogous to that in which a man is asked to «define» a term he uses. From his answer one cannot with certainty infer anything about his usage. Explicit interpretations are verbalizations about verbal behavior. Designations and sentences are interpreted irrespective of whether such verbalizations are produced.

If P says ««a» means b and not c» and Q says ««a» means c and not b», and «b» and «c» for P are assumed to mean the same as «b» and «c» for Q, then we shall say that they give different explicit *interpretations* of «a». This implies that P and Q, if they believe each other, would tend to agree to the hypothesis

-Syn(aPaQ)

Such an agreement is a symptom of ambiguity of «a», but analysis of actual use may weaken the interpretational hypotheses made by P and Q. They may be mistaken in their beliefs.

If nothing is presumed known about whether «b» and «c» mean the same for P as for Q, the interpretans expressions are different, but nothing precludes the possibility that «b» means for P the same as «c» for Q, and vice versa. P and Q may both have the same hypothesis in mind, namely, that «a» has the sense described by «b» in the terminology of P, and by «c» in the terminology of Q. In symbols:

Syn(aPaQ) & Syn(bPcQ) & Syn(cPbQ)

If the assumption made by the asserter of an interpretative sentence—that the interpretans expression is adequate for the attempted communication—is untenable, the receiver obtains a false opinion about the view held by the asserter concerning the meaning of the interpretandum.

I. BASIC TERMS

Suppose a person P_1 asserts that for him a series of sentences T_1, T_2, \dots, T_n , $n \geq 2$ all express meanings that differ from each other, (a) whatever the situation or (b) at least if a set of situations are specified.

In symbols:

$$(1a) P_1: \text{Het}(T_1 P_1 T_2 P_1) \& \text{Het}(T_1 P_1 T_3 P_1) \& \dots \& \text{Het}(T_1 P_1 T_n P_1) \\ \& \dots \dots \dots \& \text{Het}(T_{n-1} P_1 T_n P_1)$$

$$(1b) P_1: \text{Het}(T_1 P_1 S_1 T_2 P_1 S_1) \& \dots \& \text{Het}(T_{n-1} P_1 S_1 T_n P_1 S_1)$$

The list T_1, T_2, \dots, T_n will be said to be assumed by P_1 to be a *heteronymous list* for P_1 (in relation to every possible occurrence, or in relation to a subgroup of occurrences). Roughly speaking, a heteronymous list is a list of terms or sentences including no pair of synonymous members.

Suppose, further, that P maintains that a sentence (or designation) T_0 is ambiguous and that it sometimes means T_1 , sometimes T_2, \dots , sometimes T_n .

In symbols:

$$(2) P_1: (ES). \text{Syn}(T_0 P_1 S T_1 P_1 S) \& (ES'). \text{Syn}(T_0 P_1 S' T_2 P_1 S') \& \dots \\ \& (ES^{(n-1)}). \text{Syn}(T_0 P_1 S^{(n-1)} T_n P_1 S^{(n-1)}) \\ \& -\text{Id}(SS') \& -\text{Id}(SS'') \& \dots \& -\text{Id}(S^{(n-2)} S^{(n-1)})$$

Under the stated condition, P_1 will be said to have offered a *list of interpretations* of T_0 . If tenable, each interpretans designation or sentence will in relation to P_1 be said *to express an interpretation* of T_0 , or in short, to be an interpretation of T_0 . In relation to T_0 and to P_1 , the list will be called an intrapersonally *heteronymous reference list*.

In symbols:

If, and only if, (1) and (2), then

$$(3) \text{Int}(T_1 P_1 T_0 P_1) \& \text{Int}(T_2 P_1 T_0 P_1) \& \dots \& \text{Int}(T_n P_1 T_0 P_1) \\ \text{Int}(T_1 P_1 T_0 P_1) - T_1 \text{ for } P_1 \text{ is an interpretation of } T_0 \text{ for } P_1$$

This terminology is such that the expression « T_i is an interpretation of T_0 » is used only provided the user has the opinion that there are (at least)

two heteronymous sentences such that T_0 may sometimes be synonymous to the one, sometimes to the other. If not, the expression « T_i may be synonymous to T_0 », or, anticipating an expression to be introduced in the next section, « T_i is a synonymic alternative to T_0 » will be used. In other words, « T_i is an interpretation of T_0 » is to be used only when T_0 is considered ambiguous in the adopted sense of that word.

In symbols:

$\text{Int}(T_i T_0) \dots \text{Amb}(T_0)$
 $\text{Amb}(T_0) \dots (\text{Ei})\text{Int}(T_i T_0)$
 $-\text{Amb}(T_0) \dots (\text{i})-\text{Int}(T_i T_0)$

The terms «list of interpretations», «interpretation», and «heteronymous reference list» will be used as concept designations for conceptual tools by which we will endeavor to analyze existing lists of senses that terms are said to express.

Concerning interpretations it should be noted:

1. Interpretations are not designations or sentences. Some designations and sentences express interpretations. Synonymic alternatives as N-defined in the next section are designations or sentences. [*Editor's note: N refers to normative.*] Therefore, interpretations are not a subclass of synonymic alternatives. A designation or sentence may be said to express an interpretation only if it is a member of a heteronymous reference list for the expression interpreted.
2. A proposed list of interpretations represents a set of hypotheses about usage (or about pure semantic systems). The contents of those hypotheses are attempted to be expressed by a terminology that may be more or less specific to the framer of the hypotheses.
3. If two persons construct different lists of interpretans expressions and both claim that they have offered an exhaustive list of senses of a particular designation or sentence, this does not exclude the possibility that they intend to express just the same senses.
4. If two persons propose the same list of interpretans expressions, they may be said to make the same assumption about meanings or senses only if it is assumed that they interpret the interpretans ex-

I. BASIC TERMS

pressions in the same way. That is, a set of intersubjective synonymy hypotheses is assumed valid.

5. A list that is heteronymous for one person may contain synonymous members for other persons. The establishment of a heteronymous list for several people involves the establishment of a list of intersubjective synonymy relations.
6. If a person proposes a list of interpretations but admits that some interpretans expressions are ambiguous, his hypothesis lacks definiteness, if he does not somehow point to which of the possible senses he intends to refer. If he is capable of expressing the sense intended, the initially adopted, ambiguous interpretans expression may be exchanged for the one expressing (for that person) the sense intended.
7. A person's report about how he interprets an expression is a report about usage; the occurrences of the expression in the report are metaoccurrences.

As introduced here it is easy to establish the existence of a great number of interpretations of almost any formulation. Most of them are, however, more or less irrelevant to given purposes. It is of little interest to find that some formulations are (possible) interpretations of others *if they are not of certain kinds. Of these kinds that may have special interest there are many.* We are normally interested in certain subclasses of interpretations, interpretations with properties of special interest.

Most texts have an author, or, more generally, a person who by means of the text tries to communicate statements that he thinks can be suitably expressed by the text. We shall call such a person an *asserter*, provided the text consists of formulations.

(4) If P is an asserter of «a», and «b» may in at least one type of situation be an interpretation of «a» for P, we shall call «b» an *asserter interpretation* of «a».

Very often, we are especially interested in such interpretations. They are the interpretations relevant to the question of what P might have meant by «a». Of the asserter interpretations, those groups are of special interest that are related to each occurrence of «a» in texts formulated by P.

Most texts also have readers. At least their authors read them. We call a *receiver* anyone reading a text with the aim of understanding it.

(5) If P is a receiver of «a», and «b» may in at least one type of situation be an interpretation of «a» for P, we shall call «b» a *receiver interpretation* of «a».

In many cases we are not interested inasserter interpretations, or we have no persons who can be classed as asserters. According to some theorists of law, this latter situation is realized in the case of laws in democracies. There are also great controversial questions within the science of law as to the relative weights that in various situations should be attributed to asserter versus receiver interpretations (so-called «subjective» versus so-called «objective» theories of interpretation).

Authors occasionally anticipate that their understanding of their own texts will not be entirely identical with those of their prospective readers and may try to find out to what degree there is accurate communication.

(6) If P is an asserter of «a» and Q is a receiver, and «b» is an asserter interpretation for P and a receiver interpretation for Q, and «b» for P is interpersonally synonymous to «b» for Q, we shall call «b» a *communicable* interpretation between P and Q.

Of such interpretations, those are commonly of most interest that relate to one and the same occurrence of «a». In that case we shall say that P and Q interpret «a» in the same way, namely in the sense of «b».

Formulations have various degrees of technicality, and the subject matter is more or less familiar or strange to the asserter and receiver, who are more or less competent according to knowledge and experience. Usually the interpretations made by persons of a wider or narrower *class of competency* have greater interest than others. Occasionally we are not interested in competency, for example, when we try to find the source of popular misunderstandings, or possibilities of popularization without misunderstanding.

How a person interprets a formulation depends not only on his knowledge and experience, but also on personality factors of other kinds. He may be more or less prejudiced. His feelings toward the formulations, the subject matter, the asserter, and so on, influence his reading. Interpretations are more or less determined by attitudes inconsistent with scientific atti-

I. BASIC TERMS

tude.⁶ On the whole, *unbiased interpretations* are of more interest than biased (intellectually dishonest, prejudiced, slanted) ones.

Frequently occurring interpretations are of more interest than rare ones.

Suppose «a» is studied as it occurs within a more or less narrowly conceived kind of situation S. S need not be explicitly delimited. As long as no quantitative or topological criteria of frequency are introduced, assertions about frequency rest on the vernacular level of preciseness. Quantitative or topological criteria will—to be fruitful—have to be decided on separately for each kind of investigation. It would be of no use to introduce general criteria.

If T_1, T_2, \dots, T_n are interpretations of T_0 , the subgroup generally of greatest interest is that which, according to most people, expresses the most varying assertions. If the formulations T_1, T_2, \dots, T_n to most people mean approximately the same, they are less interesting than if they express very different assertions. In short, interpretation groups with *wide internal divergence of meaning* are more interesting than groups with narrow internal divergence.

Among the T_i 's some may to most people make T_0 a platitude. Other interpretations may make it a highly interesting hypothesis. Usually we are more interested in *nontrivial interpretations*. Similarly, we are usually more interested in interpretations that neither make T_0 acceptable to all nor make it unacceptable to all, but rather adaptable to current controversies. For example:

T_0 :	An eye for an eye, a tooth for a tooth.
T_1 (controversial):	Evil deeds ought to be punished with a severity that is proportional to the degree of evil effected by the deed.
T_2 (less controversial):	A man should be treated as he deserves.

T_2 is rather uncontroversial, because people who are totally against punishment may say that nobody *deserves* punishment. Those who advocate increased severity of punishment may also accept T_2 .

Last but not least, our interest depends on how *precise* the interpretations are.

In this introductory chapter, the above, rather vague survey of sub-

groups of interpretations serves the purpose of stressing that when somebody says that this or that is the correct, right, or best interpretation, he is probably thinking of a subgroup of interpretations of one of the above kinds. What is more important is that even if an interpretation is not mentioned as the best, etc., but simply offered as an interpretation, it is probably implicitly assumed to belong to a definite subclass of particular interest.

I.10. Synonymic Alternatives

As an initial formulation of a definition of «synonymic alternative» we use the following:

- (1) «the expression «a» is a synonymic alternative of the expression «b» shall mean the same as ««a» and «b» may be synonymous»».

If there *has* occurred a pair of instances of «a» and «b», let us say, a_1 and b_1 , such that $\text{Syn}(a_1 M_1 b_1 M_2)$, then this is taken as a sufficient condition that «a» and «b» may be synonymous, and thus, as a sufficient criterion of «a» being a synonymic alternative of «b», and vice versa. It is, however, not a necessary condition.

If a person P says that «a» means b, «b» will be counted as a synonymic alternative to «a», provided it is expected that the interpretative sentence made by P shows the existence of situations in which P would actually interpret «a» to mean the same as «b». According to the principle of implicit synonymy hypotheses in interpretative hypotheses (section 8, p. 49), one may expect P to assume that «a» and «b» are synonymous for him under certain conditions. It is, on the other hand, always possible that he is mistaken in his assumption about his own usage and interpretative processes.

From the normative definition of a «list of interpretations» (section 9, p. 52), it follows that the list members, the interpretans expressions, are all synonymic alternatives of the expression subjected to interpretation. Sets of interpretans expressions constitute a subgroup of synonymic alternatives. On the other hand, not all synonymic alternatives are interpretations.

A proposed list of n interpretations represents, if tenable, a survey of n senses (meanings), whereas a proposed list of n synonymic alternatives of an expression T_0 may be tenable but may nevertheless reveal no ambiguity of

I. BASIC TERMS

T_0 : the synonymic alternatives may all express the same meaning, generally, under those conditions in relation to which they are synonymous with T_0 . To get from a list of synonymic alternatives to a list of interpretations, one must establish the former's heteronymous character in relation to at least one person.

The importance of the distinction between synonymic alternatives and interpretations lies in the fact that lists of synonymic alternatives often seem to be taken as proof of ambiguities. However, only insofar as the list of synonymic alternatives is heteronymous in reference to a person, that is, only insofar as it is a list of interpretations, do the members correspond to different senses or meanings.

Synonymic alternatives are mainly of interest in studies of relations of what is here called «preciseness» (section 12), and as raw material for the construction of lists of interpretations. Sentences of the form « $\langle a \rangle$ is a synonymic alternative of $\langle b \rangle$ », may be conveniently symbolized by $\text{Synalt}(ab)$, and the normative definition (1) by (1s):

$$(1s) \text{Synalt}(ab) =_d (Ei)(Ej)\text{Syn}(aM_i bM_j)$$

Sometimes subclasses of occurrences of « a » and « b » are considered, and we accordingly add the following definition:

- (2) «the expression « a » under conditions M_1 is a synonymic alternative of the expression « b » under conditions M_2 » shall by definition mean the same as « $\langle a \rangle$ under conditions M_1 may be synonymous with « $b \rangle$ under conditions M_2 ».

In symbols:

$$(2s) \text{Synalt}(aM_1 bM_2) =_d (Ei)(Ej)\text{Syn}(a_i M_1 b_j M_2)$$

The following sentence can be deduced:

$$(3) \text{Synalt}(aM_1 bM_2) \supset \text{Synalt}(ab)$$

The right-hand expression does not imply the left-hand expression.

So-called dictionary definitions, especially in minor dictionaries, may

I.11. Examples of Lists of Synonymic Alternatives and Interpretations

be viewed as hypotheses about synonymic alternatives. «True» is defined by listing a series of expressions—«certain», «fact», «agreeing with reality» etc.—that *at least sometimes* may be substituted for «true» without important changes in meaning. No marginal references are given in many short and superficial dictionaries; rudimentary references are found in others. Synonymity hypotheses of the form $\text{Syn}(a\text{PS}_1b\text{PS}_2)$ are rare.

I.11. Examples of Lists of Synonymic Alternatives and Interpretations

Example 1

At examinations the candidates are often asked to list synonymic alternatives of a given expression. There is a tendency to produce lists that do not differ from those produced as answers to a demand for precisizations of that expression. The reason for this coincidence is in part the feeling among students that lists of synonymic alternatives are of no interest if they do not somehow better express the meaning of the expression at issue. The following is an example of an answer to the problem of the first kind, that of giving a list of synonymic alternatives, that is considered good, because not only precisizations are offered.

I call the given expression T_0 , and the synonymic alternatives T_1, T_2, \dots

T_0 : Female students are better than males at the preliminary examination in philosophy.

T_1 : Female students get on the average better marks than males in the preliminary examination in philosophy.

T_2 : Female students have hitherto obtained, and will in the future obtain, better average marks than males in the preliminary examination in philosophy.

I have chosen T_1 and T_2 as precisizations of T_0 . I believe T_0 admits of all plausible interpretations of T_1 and T_2 . T_0 admits of interpretations that T_1 or T_2 do not admit, for example, T_3 . T_2 I have given as an example of a precisization of T_0 that is stronger than T_1 .

T_3 : Fewer female students than males fail the preliminary examination in philosophy.

I. BASIC TERMS

A deprecization of T_0 is:

T_4 : Female students are better than males at the preliminary examination.

Because the preliminary examination in philosophy is common to nearly all students, and for other reasons, students often use the short designation «preliminary examination» for «preliminary examination in philosophy». T_4 is therefore a synonymic alternative of T_0 . If it turns out that a sentence is an interpretation of T_0 , I believe it will turn out that this sentence is also a synonymic alternative of T_4 . There are, on the other hand, important synonymic alternatives of T_4 that are not (plausible) synonymic alternatives of T_0 , for instance the following sentence U:

U: Female students are better than males at all different preliminary examinations at the University of Oslo.

From all this I conclude that T_4 can be regarded as a deprecization of T_0 .

In conclusion, I shall mention a sentence that is neither a precization nor a deprecization of T_0 , nor is it equal to T_0 in preciseness:

T_5 : Female students obtain on the average better marks than males at the preliminary examinations.

Because T_5 mentions average marks, some synonymic alternatives are ruled out that T_0 admits. Because the more indefinite designation «preliminary examination» has replaced «preliminary examination in philosophy», some synonymic alternatives are created that T_0 does not admit. T_0 and T_5 have, therefore, each their specific synonymic alternatives. They are incommensurable in relation to level of preciseness.

Example 2

Discussing questionnaires, G. A. Lundberg (1942: 167) says that words «and phrases of ambiguous meaning should be avoided». The expression «age» is taken as an example: «if the term is «age», this is subject to at least three interpretations: (1) exact present age, (2) age at last birthday, (3) age at nearest birthday».

(1) «Age» may mean the same as «exact present age» and «age» may mean the same as «age at last birthday» and «age» may mean the same as «age at nearest birthday».

I.11. Examples of Lists of Synonymic Alternatives and Interpretations

This reformulation stresses the assertion of three hypotheses about synonymic alternatives. In other words:

- (2) The three expressions «exact present age», «age at last birthday» and «age at nearest birthday» are synonymic alternatives of «age».

It is plausible, however, that Lundberg intends to assert more than this, or that he at least expects readers to understand that he conceives the three synonymic alternatives as belonging to an important subclass of synonymic alternatives. They are probably not conceived to be synonymic alternatives of one another. For Lundberg the three expressions form a heteronymous list in relation to every possible occurrence or in relation to a subgroup of occurrences. He probably also assumes that the three expressions are heteronymous for the reader, and that there is approximate or strict interpersonal synonymy between the expressions as interpreted by himself and as interpreted by the readers of his book. It is therefore plausible that Lundberg intends to offer suggestions for a list of interpretations of «age». If tenable, each interpretation expression expresses an interpretation of «age». If the above-mentioned interpersonal synonymy relations hold good, he has offered an interpersonally heteronymous reference list for interpretations of «age». In view of these considerations, we offer a tentative reformulation:

- (3) «Age» admits of at least three interpretations, expressed by «exact present age», «age at last birthday», and «age at nearest birthday».

This last reformulation is closely similar to the original formulation of Lundberg, but if (3) is interpreted in accordance with the terminology introduced in the foregoing sections, it will express a fairly definite hypothesis as soon as criteria of synonymy are adopted.

B. F. Skinner (1945: 275) writes that «the community has no suitable connection with the speaker's stomach. 'I am hungry' may therefore be variously translated as (1) 'I have not eaten for a long time', or (2) 'That food makes my mouth water', or (3) 'I am ravenous' (compare the expression 'I was hungrier than I thought' which describes the ingestion of an unexpectedly large amount of food), or 'I have hunger pangs'. While all of these may be regarded as synonymous with 'I am hungry', they are not synonymous with each other». Maybe Skinner, by a sentence of the kind «x is synony-

I. BASIC TERMS

mous with *y*» means something similar to «is a synonymic alternative of *y*». Probably he intends to provide something like a heteronymous reference list. Tentative reformulations analogous to those of the foregoing example may be constructed, but they lead to hypotheses that, given the criteria of synonymy introduced in chapter 7, may well prove untenable or at least somewhat doubtful.⁸ At any rate, the hypotheses are of considerable interest not only for the semantics of the term «hungry» but for the understanding of psychological processes connected with behavior of hungry organisms in some senses of this expression.

I.12. Preciseness: Introduction

a. Normative Definition

Let «*a*» and «*b*» be two expressions. Suppose, for a moment, that we are able to survey the total class of synonymic alternatives of «*a*» and of «*b*». In other words, suppose we are able to survey what kinds of designations (or sentences) at least sometimes may express the same meaning as «*a*» or «*b*».

(1) If, and only if, every synonymic alternative to «*a*» is also a synonymic alternative to «*b*», and there is at least one synonymic alternative to «*b*» that is not a synonymic alternative to «*a*» and «*a*» admits of at least one synonymic alternative, then «*a*» will be said to be *more precise* than «*b*».

Roughly, «more precise than» means poorer, but comparable in synonymic alternatives.

If «*a*» is more precise than «*b*», «*a*» will be said to be a *precization* of «*b*». This term will also be used for the activity of finding expressions that are more precise than given ones. If «*a*» is more precise than «*b*», «*b*» will be said to be less precise than «*a*», and called a *deprecization* of «*b*». The name will also be used for the corresponding activity (Skinner 1945: 275).

Consider the following example:

«*a*» — The train leaves at 8 P.M.
«*b*» — The train leaves at 8 o'clock.

A supposed synonymic alternative to «a» is «The train is scheduled to leave at 8 P.M.».

The hypothesis that every synonymic alternative of «The train leaves at 8 P.M.» is also a synonymic alternative of «The train leaves at 8 o'clock», and that there is at least one synonymic alternative of «The train leaves at 8 o'clock», for example, «The train leaves at 8 A.M.», that is not a synonymic alternative of «The train leaves at 8 P.M.», and that the latter admits to at least one synonymic alternative is by definition a hypothesis about preciseness. The hypothesis may be conveniently expressed in the following words: the sentence «The train leaves at 8 P.M. is more precise than the sentence «The train leaves at 8 o'clock».

In symbols:

$$(1s) \Pr(ab) =_d \neg(Ex). \text{Synalt}(xa) \ \& \ \neg\text{Synalt}(xb)$$

$$.\&. \quad (Ey). \text{Synalt}(yb) \ \& \ \neg\text{Synalt}(ya)$$

$$.\&. \quad (Ez). \text{Synalt}(za)$$

The synonymic alternatives alluded to may be any synonymic alternatives of any instances of the expressions. Preciseness hypotheses of interest do not usually refer to the total classes of instances of the expressions «a» and «b», but to subclasses of the total class, as the following example illustrates.

«The expression «whole number» occurring in the sentence «There is no whole number between 0 and 1» is more precise than the expression «number» occurring in the sentence «There is no number between 0 and 1».» Using the definition of «more precise than», this hypothesis means the same as «There is no synonymic alternative to the expression «whole number» as it occurs in the sentence «There is no whole number between 0 and 1» that is not also a synonymic alternative to the expression «number» in «There is no number between 0 and 1», and there is at least one synonymic alternative to «number» in «There is no number between 0 and 1», that is no synonymic alternative to «whole number» in «There is no whole number between 0 and 1»». Moreover, there is at least one synonymic alternative of «whole number» in «There is no whole number between 0 and 1», for example, «natural number».

In this example there is reference to subclasses of instances, namely the

I. BASIC TERMS

classes of instances of «number» and of «whole number» characterized by filling the space between certain words in certain sentences.

Symbolization adapted to the second example: $\text{Pr}(aS_1bS_2)$, where S_1 and S_2 refer to the sentences «There is no whole number between 0 and 1» and «There is no number between 0 and 1», and «a» and «b» refer to «whole number» and «number».

Generalizing:

$$\begin{aligned} (2) \text{Pr}(aM_1bM_2) =_D & \neg(\text{Ex})(\text{Ei}). \text{Synalt}(xM_i aM_1) \ \& \ \neg\text{Synalt}(xM_i bM_2) \\ & \ .\& \ .(\text{Ey})(\text{Ej}). \text{Synalt}(yM_j bM_2) \ \& \ \neg\text{Synalt}(yM_j bM_1) \\ & \ .\& \ .(\text{Ez})(\text{Ek}). \text{Synalt}(zM_k aM_1) \end{aligned}$$

Roughly, (2) says that a particular subclass of «a» occurrences is more precise than a particular subclass of «b» occurrences when, first, there is no expression of any subclass whatsoever that is a synonymic alternative to the «a»'s under consideration but not to the «b»'s; second, there is such an expression that is a synonymic alternative to the «b»'s and not to the «a»'s; and third, the expression «a» has at least one synonymic alternative.

Suppose «a» and «b» are selected in such a way that there is no synonymic alternative to «a» that is an alternative to «b» and vice versa. Suppose, in short, that «a» and «b» have no common synonymic alternative (and therefore no common interpretation). In symbols:

$$\neg(\text{Ex}). \text{Synalt}(xa) \ \& \ \text{Synalt}(xb)$$

From the definitions of (1s), it follows that if «a» is more precise than «b», then there is at least one synonymic alternative to «a», and that this alternative is also a synonymic alternative to «b». In symbols:

$$\begin{aligned} \text{Pr}(ab) : \supset (\text{Ez}). \text{Synalt}(za) \ .\& \ .(x). \text{Synalt}(xa) \supset \text{Synalt}(xb) \\ \text{Pr}(ab) : \supset (\text{Ez}). \text{Synalt}(za) \ \& \ \text{Synalt}(zb) \end{aligned}$$

This relation narrows down the area of expressions comparable in terms of preciseness. Definition (1) may be sign-economically reformulated in class terminology: ««a» is more precise than «b»» means the same as

«The class of synonymic alternatives to «a» is a nonvacant proper subclass of the class of synonymic alternatives to «b»».

This formulation is not often used because of its technicality and because it may give the impression that the classes mentioned are somehow given in the form of lists or otherwise.

b. Relation to the Vernacular

The introduced term «more precise than» is closely connected with certain usages of the term in the vernacular and in the sciences, but diverges in a way explained by the above consideration. Vernacular usage of «precise» is such that we may say that a sentence in a psychological text, let us say, «If a response is followed by a noxious stimulus it will tend to be weakened in strength», is less precise than a sentence in a mathematical text, let us say, «7 is a prime number». Such a comparison would presuppose, according to our normative definition, that the two sentences «a» and «b» have a common synonymic alternative «c», that is, that there is a third sentence such that sometimes the mathematical sentence means the same as the third sentence «c» and sometimes the psychological sentence means the same as «c». In this work the intended concepts of «preciseness» are such, however, that preciseness relations presuppose a kind of similarity of meaning.

This rules out the possibility of mathematical sentences being more precise than psychological sentences—except in cases, for example in quantitative psychology, in which sentences may have both psychological and mathematical interpretations.

The requirement of a common synonymic alternative would not follow from the normative definition of preciseness if the third part of the definitions were eliminated. That part says that the more precise expression (and therefore also the less precise) must admit of at least one synonymic alternative. If an expression «a» had no synonymic alternative, it would be more precise than every expression that admits of one or more alternatives. This would in theory make it possible to say about expressions that are totally unrelated in meaning that some are more precise than others.

The narrowness of comparability of preciseness as defined here is purposely introduced because we are interested in the possibility of substituting sentences with more precise sentences. The claim that a sentence is more

I. BASIC TERMS

precise than another sentence will be considered in problems concerning how to avoid misunderstandings. Evidently, if two sentences are totally unrelated in meaning as in the above example, the claim that the one is more precise than the other does not warrant the consideration of the possible substitution of the less precise with the more precise. It is of no avail to put a mathematical sentence on prime numbers into a text on conditioning and learning because the mathematical sentence is more precise (in a vernacular sense) than the psychological one. For purposes other than substitution, a second preciseness concept might be introduced, normatively defined by the first two parts of the definiens of the adopted normative definition (1s).

It should be noted that it does follow from definition (1) that if «a» is more precise than «b», then «a» admits of *fewer* synonymic alternatives and fewer interpretations. No direct quantitative comparison is presupposed. However, if an enumeration of synonymic alternatives were practically possible, the conclusion that the number *n* of alternatives of «b» is greater than the number of alternatives of «a» would be of little interest if the relatedness in meaning stipulated in (1) were not satisfied. ««7» is a prime number» admits, maybe, of fewer synonymic alternatives than certain sentences in psychology, but it does not help the psychologist who strives to give his text a fairly unambiguous form. Whereas it follows from the normative definition of ««a» being more precise than «b»» that «a» admits of fewer synonymic alternatives, the converse does not follow: «a» may admit of fewer synonymic alternatives than «b» but not be more precise than «b».

I.13. Preciseness, Interpretation, and Ambiguity

a. Preciseness and Interpretation

So far we have considered synonymic alternatives regardless of whether they might occur as presumptions of interpretative sentences.

One might expect that fruitful concepts of preciseness ought to be constructed so as to be applicable to interpretation relations rather than to any kind of synonymic alternatives of sentences. The mere substitution of certain sentences for others has no effect on sources of misinterpretation unless the process excludes interpretations representing misinterpretations. It can, however, be shown that if «a» is more precise than «b» in relation to

interpretative sentences, «a» is also more precise than «b» in relation to synonymic alternatives in general, and vice versa. Consequently, a limitation of comparison to interpretations does not result in rejection of any preciseness relation found by using the general synonymic alternative definition (1) of section 12. Let us consider this argumentation in more detail.

Suppose «c» is a synonymic alternative to «b», but not to «a». This means that «a» is never interpreted in the same way as «c». In other words, «a» cannot be more precise than «b» in the accepted sense unless there is an interpretation of «b» that «a» does not admit. On the other hand, if there is an interpretation (as part of a list of interpretations) that «b», but not «a», admits, there will also be a synonymic alternative that «b», but not «a», admits. Thus, if, and only if, «a» is more precise than «b» in terms of synonymic alternatives, will «a» be more precise than «b» in terms of interpretations.

One may therefore by definition assert:

- (1) ««a» is more precise than «b»» is equipollent to «There is no interpretation of «a» that is not also an interpretation of «b», whereas there is at least one interpretation of «b» that is not an interpretation of «a», and there is at least one interpretation of «a»».

In symbols:

$$\begin{aligned} (1s) \Pr(ab) =_d & \neg (Ex). \text{Int}(xa) \ \& \ \neg \text{Int}(xb) \\ & .\& \ (Ey). \text{Int}(yb) \ \& \ \neg \text{Int}(ya) \\ & .\& \ (Ez). \text{Int}(za) \end{aligned}$$

It should be noted that if «a» is more precise than «b» for certain persons in certain situations, this does not prevent «b» from being more precise than «a» for other persons in other situations. The relativity of preciseness hypotheses to definite groups of occurrences of sentences or designations, and to definite contexts, persons, or situations, ensures a level of differentiation adapted to the purposes of the conceptual system.

Suppose the designation «a» is found to be more precise than «b» within certain contexts. This means, roughly, that some designations sometimes express the same meaning as «b», but never the same meaning

I. BASIC TERMS

as «a», whereas any designation that sometimes may express the same meaning as «a» also may sometimes express the same meaning as «b». This relation of being more precise implies that if a list of synonymic alternatives to «a» and a list of synonymic alternatives to «b» are constructed, the b list must not consist of designations that are all synonymous to each other. If they were, «b» would have no specific synonymic alternative. All or none would be synonymic alternatives also to «a» because of the transitivity of the synonymy relation (see chapter 2, section 6).

The b list must—if «a» is more precise than «b»—contain at least two interpretations in the sense of section 9. The corresponding interpretans expressions will form a heteronymous list with at least two members.

If the heteronymous list of «b» has only two members, the list of synonymic alternatives to «a» must be made up of designations that are all synonymous. No heteronymous list can be formed from it. If the heteronymous list formed out of members of the synonymic alternatives of «b» contains n members, the corresponding heteronymous list for «a» can at most consist of n–1 members.

The relation between preciseness relations and interpretations is seen to be such that:

1. If «a» is more precise than «b», «b» admits all interpretations (that is, may express all meanings) that «a» admits, and at least one that «a» does not admit, and «b» must have at least two meanings.
2. If, vice versa, «b» admits all interpretations that «a» admits, and at least one that «a» does not admit, then sufficiently extensive synonymic alternative lists of «a» and «b» will be such that «a» can be said to be more precise than «b».
3. Therefore, ««a» is synonymically more precise than «b»» is equipollent to ««a» is interpretatively more precise than «b»».
4. If «b» expresses an interpretation of «a», «b» cannot be less precise than «a». It must be either more precise or incomparable to «a» as regards preciseness.⁹

b. Preciseness and Ambiguity

Vernacular and technical literature makes use of the expressions «more ambiguous than» and «less ambiguous than».

As in the case of the expression «more (or less) precise than», one may introduce concepts of degree of ambiguity such that two terms totally unrelated in meaning may be compared, or one may wish to introduce a concept that stipulates certain relations of interpretation. The usefulness and simplicity of the latter kind of concept make it advisable to introduce the following normative definition: in this work «more (less) ambiguous than» shall mean the same as «less (more) precise than».

The relation of this technical use of «ambiguous» to that of the vernacular is more unsatisfactory than the corresponding relation between «precise» and the vernacular, insofar as «ambiguity» in the vernacular often carries with it an unconditional negative evaluation. If it is said about a sentence that it is ambiguous, this remark is often interpreted as if there existed ambiguities of important and undesirable kinds. The classification of all expressions into more or less ambiguous ones is likely to be regarded as an attempt to uncover undesirable features of any expression whatsoever. This negative association attached to «ambiguous» is one of the reasons that the term «more (less) precise» is preferred in this work.

I.14. Specification and Elaboration

a. Specification

Consider the following two sentences:

«a» — In the beginning of the nineteenth century, Norway was made independent of another state.

«b» — In 1814, Norway was made independent of Denmark.

It is not unusual for university students to judge «b» to be more precise than «a» in the terminology of section 12. The conditions would have to be rather extraordinary, however, to make anybody interpret «a» and «b» as having a synonymic alternative in common. There is scarcely any «c» such that both «a» and «b» are synonymic alternatives of «c». Consequently, there is scarcely a person and a situation such that both «a» and «b» are synonymous with «c». This seems to hold good for most of the interpretations of the term «synonymous» found in technical literature and in the vernacular.¹⁰ Let us, however, grant that there is such a relation:

I. BASIC TERMS

$$(EP)(ES) \text{ Syn}(acPS) \ \& \ (EP')(ES') \text{ Syn}(bcP'S')$$

The satisfaction of this condition does not imply that there is any person P'' and situation S'' such that for this person in that situation, «b» is more precise than «a». The relation

$$(1) \text{ Pr}(baP'S'')$$

is realized only when *all three* requirements mentioned in the N-definition of preciseness are satisfied.

Let us, for the sake of argument, suppose that (1) is realized. It is not warranted to infer from this relation the satisfaction of the relation

$$(2) \text{ Pr}(ba)$$

because the latter is satisfied only when the first one holds good for every person in every situation.

Thus, under no circumstances are there any reasons to believe that «b» is more precise than «a» in general. One may *imagine* rare cases of «b» being more precise than «a», but only by means of a rather vivid imagination.

On the other hand, it will be easy to find cases in which «a» and «b» are interpreted in such a way that 'a' follows from 'b'.

Consider the expressions «independent of another state» and «independent of Demark». A Norwegian who hears «a» will perhaps say to himself, «Aha, by «another state» Denmark is of course meant (thought of)». Compare a similar inference in the case of an official announcement that «The Communist N. N. has been seen delivering papers to a member of a foreign embassy». Some might at once say, «Aha, the Russian embassy is of course meant».

There are important senses of synonymy sentences («--- means the same as . . .», etc.) that make it unwarranted to say that «independent of another state» *means* to somebody the same as «independent of Denmark» or the same as «independent of another state, Denmark», or to say that «a member of a foreign embassy» means to somebody the same as «a member of the Russian embassy». The concepts of synonymy to be introduced in

chapter 7 are of this kind. The comment to «a» will then not be «Aha, Denmark is meant», but rather «Aha, I know the state (which is not mentioned directly). It is Denmark». In other words, one interprets «a» to assert that there was a state of which Norway was made independent in the beginning of the nineteenth century, but nothing is said about which state fulfilled those characteristics. This kind of interpretation is probably the most frequent in the following case:

- «a» — There is a prime number smaller than 10 and greater than 5.
«b» — 7 is a prime number smaller than 10 and greater than 5.

Some may upon hearing «a» say, «Aha, he means 7» but generally one may expect that neither «7» nor «b» will be taken as expressing the same meaning as «a».

Similar remarks apply to the relation between the expressions «in the beginning of the nineteenth century» and «in 1814». The synonymity concepts to be introduced are such that the two expressions are scarcely ever taken to be synonymous.

To handle pairs of sentences such as «a» and «b» in a satisfactory way, we shall introduce a term «specification» and stress that to specify is not the same as to make more precise in the adopted terminology.

The term «specify» is adopted to remind us of the expression «species of a genus». «Specification» in the sense to be introduced is often a kind of classification into species or kinds. In other cases the sense is more like the sense of «specify» in «specify your desires, do not only mention them in general terms».

Initial formulation:

A sentence «b» is a specification in relation to a sentence «a» for a person P in situations S if, and only if, the following two criteria are fulfilled:

- (1) As interpreted or used by P in situations S, what is asserted by «a» is explicitly or implicitly asserted by «b», but by «b» something more is asserted.
- (2) As interpreted or used by P in situations S, both «b» and «a» express assertions (propositions) about the same subject.

I. BASIC TERMS

The second criterion is not easy to make more precise. It is adopted after study of concrete cases of misapplication of the concept of preciseness.

Requirement (1) of the above initial formulation is such that it is not possible that, for a person in a specific situation, «b» is both more precise than «a» and a specification of «a». There is an «either-or». The requirement does not, on the other hand, exclude the possibility that whereas «b» for a person, in a particular situation, is a precization of «a», there are other situations (or other persons) such that «b» is a specification of «a». Comparing the relative frequency of the cases, one may sometimes state that «b» is mostly or normally a specification of «a», or that «b» is mostly or normally a precization of «a». In the above examples, «b» is probably usually interpreted in such a way that it is a specification of «a».

In the next two subsections, formulations are introduced that are more satisfactory than the initial formulation.

b. Specification Relation Between Designations

Let «a» and «b» be a pair of designations.

- (3) «The designation «a», for P in S, is a specification «b» for P in S» shall in this work mean the same as «As interpreted by P in S, the class of denotata of 'a' is a genuine subclass of the denotata of 'b', or, as interpreted by P in S, «a» expresses a concept richer in connotation than «b» does.»

The definiens expression of this normative definition is a disjunction: a relation of specification is realized if one of two, or both, conditions are realized (according to the opinion of the analyst). The first condition is one that can only be tested by empirical methods. Whether something is subsumable under a concept, that is, whether it belongs to the denotata of that concept, must be decided by methods of the nonformal sciences. Take as an example this pair of designations: «a» — «country with towns farther north than 71°», and «b» — «Scandinavian country». The first designation is a specification of the latter in relation to a person P if that person interprets it in such a way that its denotatum or denotata belong (properly) to the class of denotata of the latter designation. This will, for example, hold good if there are several Scandinavian countries in the intended sense of

«Scandinavian country» and only one country with towns farther north than 71° , and that country is a Scandinavian country. It is a question of how to interpret P and a matter of geography to decide whether there is an instance of specification.

Let us, on the other hand, consider this pair of designations: «a» — «Scandinavian country with towns farther north than 71° », and «b» — «Scandinavian country». To decide whether «a» is a specification of «b», it is convenient to start with a comparison of concepts expressed by «a» and «b» (as interpreted by certain people in certain situations). It may well be that a concept-determination schema of such a kind can be constructed, that 'a' has all conceptual characteristics that 'b' has and at least one more. For example: The concept 'a' is determined by the two characteristics 'Scandinavian country' and 'country with towns farther north than 71° '. The concept 'b' is completely determined by the first conceptual characteristics attributed to 'b'.

A decision concerning whether «a» is a specification of «b» is here based on empirical investigations of how «a» and «b» are actually interpreted by certain people in certain situations, and on logical investigations concerning relations of explicitly introduced concepts.

The definiens of (3) is formulated as a disjunction between two requirements, the first of which refers to denotation, the second to connotation. The first requirement may be satisfied without the second being satisfied; 'a' and 'b' may, for example, each have particular conceptual characteristics of their own. The one will then be neither more nor less rich in connotation than the other. On the other hand, the second requirement may be satisfied without the first being so, for example, if 'a' is richer in connotation than 'b', but both have the same denotation.

The importance of such a concept of 'specification' as introduced above stems partly from the importance of avoiding misapplication of the concept of 'precization', partly from the value of bringing under one heading certain methods of narrowing down a subject of discussion. Very often the demand to be more specific can be satisfied by giving specifications in the introduced sense. Suppose a historian says something rather sweeping about «medieval kings». Demands for precization may clear up misunderstandings caused by different delimitations of concepts of 'medieval age' and 'king'. Demands for specification can focus attention on definite kings.

I. BASIC TERMS

c. Specification of Sentences

Let T and U be a pair of sentences.

- (4) «U is more specified than T for P in S» shall in this work mean the same as «As interpreted or used by P in S,
1. U may be given the form «There is something that falls under the concept 'a' that has the property c», and
 2. T may be given the form «There is something that falls under the concept 'b' that has the property c» or «Something b, which falls under the concept 'a', has the property c», and
 3. «b» is a designation-specification of «a»».

Formulation (4) may be illustrated by the following:

««A Scandinavian country was made independent in the nineteenth century» is for A. N., reading his own manuscripts, more specified than «A country with town farther north than 71° was made independent in the nineteenth century»» means according to the adopted terminology the same as As interpreted by A. N., reading his own manuscripts,

1. «A Scandinavian country was made independent in the nineteenth century» may be given the form «There is something that falls under the concept 'Scandinavian country' that has the property of having been made independent in the nineteenth century», and
2. «A country with towns farther north than 71° was made independent in the nineteenth century» may be given the form «There is something that falls under the concept 'country with towns farther north than 71°' that has the property of having been made independent in the nineteenth century», and
3. «country with towns farther north than 71°» is a designation-specification of «Scandinavian country»».

d. Exemplification: Why Is It Difficult to Differentiate Between Precizations and Specifications?

At examinations in 1948 the problem was given to precise in different directions the designation «*pugg*» as used among students. Dictionaries claim

that «grind» is the equivalent English term. This is presumed in the following to be justifiable.

One of the answers considered to be satisfactory distinguishes four directions of precization of «*pugg*» (as a process, to grind):

- T₁: learning by heart without understanding the content
- T₂: learning memory stuff¹¹ by heart
- T₃: learning by heart in such a way that what is learned can be delivered word for word
- T₄: too diligent reading¹²

The list T₁–T₄ can be considered to be a list of interpretations. The author considers the first two to indicate the most frequent usages among students. This, of course, is only a guess as long as no extensive empirical studies have been undertaken.

Some candidates proposed precizations that might rather be mentioned as examples of specifications:

- Learning of names by heart
- Learning of formulas by heart
- Learning of quotations by heart
- Too diligent learning of names
- Too diligent learning of formulas
- Too diligent learning of quotations

The designation «learning of names by heart» probably expresses for the student P, whose answer has been quoted, a concept *richer* in connotation than the concept expressed for P by the designation «learning memory stuff by heart» (T₂).

If P uses T («to grind») synonymously with T₂, and if «learning of names by heart», (U), is for P expressive of a richer concept than T₂, then U is not a precization of T or T₂, for P, but a specification expression of T and of T₂ for P.

It cannot be ruled out as impossible that those students who tend to give U as an example of a precization of T actually have observed occur-

I. BASIC TERMS

rences of T that confirm the hypothesis that U sometimes is used as a synonym for T, but it is very unlikely (given the criterion of synonymy they are asked to apply). It is more probable that the concept of 'precization' is mixed together with that of 'specification'. The confusion seems in part to be caused by a feeling among some of the students that it is obvious what the term «grind» means. Proceeding from the tacit assumption that it means 'T₂' (or 'T₄'), all that they find they can do is give a classification of things subsumable under 'T₂' (or 'T₄').

What here is said about U can be said about the other members of the above list of specification expressions: the expressions are likely to be considered expressive of concepts richer in connotation than concepts expressed by T₂ and T₄. In cases in which T is used synonymously with T₂, the expressions «learning of formulas by rote» and «learning of quotations by heart» can be considered expressive of specifications of T₂, and, because of presumed synonymy with T, expressive of specifications of T. In case T is used synonymously with T₄, the expressions «too diligent learning of names», etc., can be considered expressive of specifications of T₄, and therefore of T.

It should be noted that the relation of specification can only be asserted on the basis of a presumed usage. If T₁ and T₂ are interpretations of T, U may be said to be a specification of T₁ or of T₂ and possibly of both T₁ and T₂. It is apt to be misunderstood, however, if one says—without reference to interpretations of T—that U is a specification of T. What usage of T is referred to? U may be a specification of T when T is synonymous with T₂, but not when T is synonymous with T₄.

A relation of specification is relative to a usage, that is, to the use of certain persons under certain conditions. For one person, U may be a precization of T; for another, U may be a specification of T. In one kind of situation, U may be a precization of T; in another, U may be a specification of T. If U is a specification of T for all persons in all situations, it may of course be convenient to introduce as shorthand «U is a specification of T» for «U is for all people in all situations a specification of T». Even if U is a specification only for one person in one situation, such a shorthand may be convenient within long argumentations concerned with that person or that situation or with the relation of specification abstracted from persons and situations.

If «U is a specification of T» is introduced as shorthand for «U is in re-

lation to (the usage of) at least one person in one situation a specification of T» and «U is a precization of T» is introduced as shorthand for «U is in relation to at least one person in one situation a precization of T relative to that usage»: if 'U' is a concept richer than 'T', and those concepts are in a given communication or class of communications expressed by the designations U and T, then U and T cannot be synonymous within that communication or group of communications. If they were synonymous they could not, *per definitionem*, express a pair of connotations such that the one were richer than the other.

Unhappily, students tend to abstract statements from instances of communication. This done, they find that precizations and specifications are «difficult to keep apart» even in theory. The difficulties that remain after clarification of terminology are, however, of an empirical character: one does not know much about usage.

e. Elaboration

Roughly speaking, concepts of 'synonymic alternative' are used to describe and solve problems of how to modify a saying but not its contents, by using alternative phrases. Concepts of 'preciseness' are used in problem situations where elucidation and avoidance of ambiguity are our aim. An improvement of definiteness is in such cases under consideration. 'Specification' is needed to make a description more concrete and direct. In problem situations in which efforts of precization and specification are helpful, a third kind of process may also prove helpful, a process here called «elaboration». It is not our aim to make much use of this term. It will be used to make the relation of 'preciseness' to other relations more clear.

By «elaboration of a statement» that attributes a property to something, I mean any addition of statements about other properties, when the latter are not precizations or specifications of the first one. An example:

- «a» — Dr. Koppang has the opinion that Hegel influenced the works of Ibsen.
- «b» — Dr. Koppang has in his monograph *Hegelianism in Norway*, a Ph.D. dissertation, expressed the opinion that Hegel influenced the works of Ibsen, especially «*Emperor and Galilean*».

I. BASIC TERMS

The name of Koppang's monograph might possibly be mentioned in «b» without transgressing the limits of plausible interpretation of «a». This would, for example, be the case if «a» was uttered in a seminar exclusively undertaken to discuss that monograph. In such a case the repetition of the words «in his monograph ---» would have been tedious and could profitably have been left out when talking about Dr. Koppang's opinions. In most situations, however, mentioning the monograph and, even more so, the other differences between «a» and «b» transcends the limit of precision and specification. For most persons and in most situations, «b» is therefore an elaboration of «a».

A more complicated example:

Kant says in his foreword to the first edition of *Kritik der reinen Vernunft* about the expression «*Kritik der reinen Vernunft*»:

Ich verstehe hierunter nicht eine Kritik der Bücher und Systeme, sondern die des Vernunftvermögens überhaupt, in Ansehung aller Erkenntnisse zu denen sie, *unabhängig von aller Erfahrung*, streben mag, mithin die Entscheidung der Möglichkeit oder Unmöglichkeit einer Metaphysik überhaupt und die Bestimmung sowohl der Quellen, als des Umfanges selbst und der Grenzen derselben, alles aber aus Prinzipien.

Let us consider the following part of this long sentence:

- «a» — Ich verstehe hierunter die Kritik des Vernunftvermögens überhaupt, in Ansehung aller Erkenntnisse, zu denen sie, *unabhängig von aller Erfahrung*, streben mag.
- «b» — Ich verstehe hierunter nicht eine Kritik der Bücher und Systeme, sondern die des Vernunftvermögens überhaupt, in Ansehung [continuation as «a»].
- «c» — [The beginning as «a», then:] mithin die Entscheidung der Möglichkeit oder Unmöglichkeit einer Metaphysik überhaupt und die Bestimmung sowohl der Quellen, als des Umfanges selbst und der Grenzen derselben, alles aber aus Prinzipien.

As I interpret Kant, he intends by «a» to give something similar to what in this work will be called a descriptive definition of the expression

«*Kritik der reinen Vernunft*». What is added in «b» serves to stress a contrast between the meaning of the definiens formulation and certain other, possible, significations. To me, in the situation partly characterized by reading Kant, «b» is no precization of «a», but an elaboration of what I think is the subject matter of «a».

The same applies to «c», although it here might be possible to regard «c» as a specification of «a». The most plausible interpretation, I think, is to regard «c» as containing a reference to *some* of the most important problems facing the critics of pure reason. In that case «c» is an elaboration, not a specification, according to the introduced terminology.

In his list of precizations of «definite», Richards (1949: 152ff.) stresses the importance of distinguishing between concepts roughly corresponding to our 'specification' and 'elaboration'.

I.15. Connotation, Denotation, Concept Subsumability: Terminological Notes

The terms discussed in this section do not occupy a central position in the conceptual structure of this work. They are introduced because they are sometimes needed for the adequate understanding of more central terms and conceptions.

«Connotation», «cognitive meaning», and «cognitive signification» are used indiscriminately. Interpretative sentences of the form ««a» means b» are used synonymously with sentences ««a» has the connotation (cognitive meaning, cognitive signification) 'b'», which in turn are used synonymously with ««a» has the cognitive meaning that «b» would have expressed in the sentence ««a» has the cognitive meaning 'b'», if that sentence had been replaced by the present sentence».

The expression «the connotation 'b'» may be said to be used as shorthand for «the connotation expressed by «b»», but in a theory of communication the question immediately arises, Expressed by «b» for whom? In what contexts? To such questions of marginal references, the answer is given that «b» should be thought of as occurring just at the place where «'b'» occurs in the sentence ««a» has the connotation 'b'».

By the last synonymity announcement a marginal reference to context is indicated. It is not a very adequate reference because it can be interpreted

I. BASIC TERMS

in such a way that it implies the hypothesis that for *all* people, «b» expresses one and the same connotation if «b» occurs within a definite kind of context. A more precise announcement is not needed in the present discussion, however.

Suppose «b» expresses for P in S a cognitive meaning 'b'. Suppose, further, that sentences of the form «x is a b» have for P in S a cognitive meaning 'x is a b' and that «b» in «x is a b» expresses the above-mentioned cognitive meaning 'b'. (The cognitive meaning 'b' will under these conditions be termed a «concept», the concept 'b'; and «b» will be called a concept designation for P in S.)

Consider this example: «Prime number greater than 100» expresses for A. N., reading mathematical texts, a cognitive meaning 'prime number greater than 100'. The sentence «101 is a prime number greater than 100» has, with the above marginal references, a cognitive meaning '101 is a prime number greater than 100', and «prime number greater than 100» in the sentence «101 is a prime number greater than 100» expresses the above-mentioned cognitive meaning 'prime number greater than 100'.

If «x is a b» can be cast into the form «x is a k_1 and x is a k_2 , . . . and x is a k_n » for P in S without change in cognitive meaning, and « k_1 », « k_2 », etc., within the above sentence, express for P a set of cognitive significations ' k_1 ', ' k_2 ', etc., then ' k_1 ', ' k_2 ', etc., will be said to be conceptual characteristics of 'b'. The expressions « k_1 », « k_2 », . . . « k_n » will be called a set of *conceptual characteristic expressions* of the concept 'b', for P in S. There may be, for P in S, many sets of conceptual characteristic expressions of the concept 'b'. Thus, if for P in S, « k_1 » and « L_1 », « k_2 » and « L_2 », . . . « k_n » and « L_n » are synonymous, then « L_1 », . . . « L_n » is another set.

Another example: «101 is a prime number greater than 100» can be cast into the form «101 is a prime number and 101 is greater than 100» within mathematical texts without change in meaning for A. N., and «prime number» and «greater than 100» within the above sentence express for him different cognitive significations. Therefore, 'prime number' and 'greater than 100' are the conceptual characteristics of 'prime number greater than 100'. The two expressions «prime number» and «greater than 100» form together a set of conceptual characteristic expressions; the two expressions «*Primzahl*» and «*größer als 100*» form another.

Another example: According to *Lexikon der Politik* (Theimer 1967), an

«*Enzyklika*» is «ein Rundschreiben des Papstes über religiöse oder politische Fragen». Possibly the definiens expression of the definiendum «*x ist eine Enzyklika*» could be reformulated as follows without changing the intended meaning: «*x ist ein Rundschreiben und x ist vom Papste geschrieben und x behandelt religiöse oder politische Fragen*». The three (heteronymous) expressions separated by «*und*» would then together form a set of conceptual characteristic expressions in relation to a concept '*Enzyklika*' intended by the author of the lexicographical monograph.

Sometimes the conceptual characteristics of a concept are themselves concepts, for several steps. It is of some importance to avoid confusing conceptual characteristics of a higher order with expressions of conceptual characteristics of a higher order. Some assertions, which are tenable if stated about conceptual characteristics, may be untenable or meaningless if stated about expressions, and vice versa. Much confusion is caused when authors talk about «*the concept b*» without indicating which concept is alluded to. The expression «*b*» is scarcely meant to be the concept one has in mind. By «*the concept b*» one more probably means to express something better expressed by «*the concept that «b» expresses*». But it is rarely intended that «*b*», in any context whatever and for every person, expresses one and the same cognitive meaning. Feeling that something ought to be added about what concept the author has in mind, he may, for example, add: '*b*' is the concept with characteristics '*k₁*' and '*k₂*'. ('*Brother*' is the concept with characteristics '*male*' and '*sibling*'.) It seems that by adding these words the author sometimes assumes that readers have been made to *see* what concept he has in mind, whereas all he has done is to add more indications of the form «*the cognitive meaning expressed by «---»*». The crucial issue is that of the level of preciseness and other characteristics of the term «*b*» compared with that of the terms «*k₁*» and «*k₂*». The expression «*the conceptual characteristic 'k₁'*» is of little use if the expression «*k₁*» does not have certain valuable characteristics as a vehicle of intrapersonal or interpersonal communication.

Let us return to sentences of the kind «*x is a b*», in which «*b*», for P in S, expresses a concept. Suppose such a sentence, having the form «*x₁ is a b*», for P in S expresses the same as the corresponding sentence «*x₁ has those characteristics that are the conceptual characteristics of 'b' (and x₁ is not the concept 'b')*». If what this latter sentence expresses is tenable, x₁ will be

I. BASIC TERMS

said to be a *denotatum* of the concept 'b'. Usually x_1 is not an expression « x_1 », but something nonverbal. Thus, Vesuvius is, so far as I know and in relation to my use of the terms «Vesuvius» and «volcano», a volcano; and Vesuvius is a denotatum of the concept 'volcano'. If x_1 in « x_1 is a b» is Vesuvius, it is far too big to be placed within any sentence, and « x_1 is a b» must be interpreted as synonymous with «what is designated by « x_1 »». Thus, sentences of the kind «--- is a (the) denotatum of . . .» will in this work be used synonymously with «The expression --- expresses a cognitive meaning of such a kind that it designates a thing that is a denotatum of the concept . . .». Such sentences (denotation sentences) need much clarification in order to express fairly definite hypotheses (denotatum hypotheses). Somehow, it must be indicated how that expression is to be interpreted that is supposed to designate (for the sender and receiver) the denotatum.

Further, it must be indicated which concept is alluded to by the expression «the concept . . .». Lastly, there is the question of how to test whether the thing (entity) asserted to be a denotatum is a denotatum.

As the concept 'denotatum' is introduced here, a concept may in 1950 have different denotata from what it has in 1960. 'Moving train on the way from Oslo to Bergen' is a concept that has fewer denotata at night than during the day. Snowstorms may make the concept lack denotata for several days, or reduce the number to a single denotatum.¹³

The problems confronting the analyst who tries to find out how to test denotatum hypotheses will be called «subsumability problems». To arrive at conclusions about whether something, x , is subsumable (as denotatum) under a concept 'b', the analyst must mostly use auxiliary hypotheses of various kinds. In chapter 5, problems of subsumption are taken up in detail.

II

Basic Terms Continued

II.1. Receiver Ambiguity and Interrelational Suspension

In chapter 1, section 5, sentences of the kind «... is ambiguous» were given a normative definition by means of the definiens expression «There is at least one pair of instances of «...» such that the first member of the pair expresses a different meaning from the second». In this normative definition, implicit reference is made to the total class of instances of «...». By (4) and (5) in section 5, hypotheses were formulated according to which instances of an expression «a» belonging to a certain subclass G_1 of the total class always express a different meaning from instances of «a» belonging to a second subclass G_2 . As introduced in section 5, an ambiguity hypothesis asserts the existence of a pair of instances of an expression, the members of which express different meanings. It is introduced as a function of one argument.

The word «ambiguous» is sometimes used in the vernacular and in technical literature in a way suggesting such a kind of ambiguity concept. The vernacular use may, however, be taken as a point of departure for precization in other directions. This shall be done here.

If a person Q is invited by a person P to say whether he accepts or rejects an assertion that P expresses by the declarative sentence T_0 , Q may feel incapable of answering, because he feels more or less uncertain about how to interpret T_0 . If several meanings seem about equally plausible as interpretations of T_0 , T_0 may be said to be *actively receiver-ambiguous for Q* in the situation characterized by P 's invitation.¹ Q does not in that case carry through a process of interpretation that is considered normal in successful verbal communication. A *suspension of interpretation* or, as we shall

II. BASIC TERMS CONTINUED

also call it, an *interpretational epoché*, occurs, which may last for some time or indefinitely.

Ambiguity in the sense of section 5 does not necessarily result in an interruption of the processes of interpretation. If T_0 sometimes means T_1 , sometimes T_2 , T_1 not being synonymous to T_2 , this may not prevent people from interpreting—without any interval of *epoché*— T_0 in the sense of T_1 or in the sense of T_2 . If T_0 in a class of contexts S_1 , always is intended to express and always is interpreted to mean T_1 , and T_0 in a different class of contexts S_2 , always is intended to express and always is interpreted to mean T_2 , then communication by means of T_0 is perfectly successful in spite of the ambiguity.

On the other hand, in cases of active receiver ambiguity, interruption and suspension of the process of interpretation, owing to the awareness of several possibilities, are more or less detrimental for successful communication. They justify immediate efforts to replace T_0 with another vehicle of meaning, or to attempt explicit interpretation.

An example of a reported case of active receiver ambiguity would be the following:

P says to Q: Do you agree to the hypothesis «All knowledge is derived from the senses»?

Q: «Derived from the senses»? What do you mean? «Tested by references to observation»? «Inferred from sense observation»? What is the hypothesis I am invited to judge?

It seems from the report that Q suspends the termination of his interpretation of the declarative sentence put forth by P. It seems that Q finds several possible meanings that might be communicated by means of the sentence produced by P in the particular situation at hand. An interview with Q may confirm or disconfirm this view of the situation.

Suppose P asserts T_0 with Q as his public, and that Q expresses acceptance or rejection. If T_0 expressed a different meaning for P as asserter than it did for Q as a receiver, we shall say that T_0 was *actively ambiguous in communication in the situation*. Later, this kind of unsuccessful communication will be closely analyzed in terms of pseudoagreement and pseudodisagreement.

In summary, we may say that:

II.2. Definiteness of Intention: Transintentionality

One may study difference in cognitive meaning attached to an expression without paying attention to effects in communication. The results may be formulated in ambiguity hypotheses (in the sense of section 5).

Or, one may concentrate on instances of verbal communication in order to find out to what degree, if at all, the use of an expression interrupts the normal process of interpretation because the listener or reader sees several, approximately equally well suited possibilities of interpretation. The results of the study may be formulated in terms of active receiver ambiguity.

Or, one may concentrate on misinterpretation. An expression may be used in a particular situation to express one meaning but be interpreted in another sense. The results of the study may be formulated in terms of active ambiguity in communication.

Active receiver ambiguity and ambiguity in communication can occur only if ambiguous expressions (in the sense of section 5) are in use. But an expression may be ambiguous without ever being actively receiver-ambiguous or actively ambiguous in communication.

An interpretational *epoché* occurs (of course) not just when an expression happens to be actively receiver ambiguous. If the receiver is incapable of finding any interpretation that seems plausible, every possibility being rejected as unlikely or impossible, there is also suspension of interpretation.

II.2. Definiteness of Intention: Transintentionality

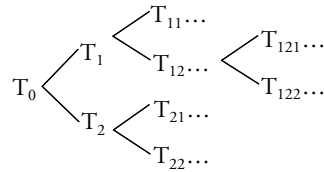
When we read a text, the normal process of interpretation is sometimes interrupted and an interpretational *epoché* is experienced. We ask ourselves what is meant. If an answer is attempted, found by first listing possibilities in a list of interpretations, the distance in meaning between the interpretans expressions may be thought of as considerable, or as being relatively small. Thus, one may talk of the range or breadth of difference in meaning within the list of interpretations.

But we may also look for distinctions of another kind. Taking each interpretans expression as a point of departure, one may construct two or more precizations of each. Each of them may in turn be subjected to precization and so forth.

Let T_0 be the original formulation, and let T_1 and T_2 make up an interpretational list consisting of two precizations of T_0 . Two heteronomous

II. BASIC TERMS CONTINUED

precizations of T_1 may be called T_{11} and T_{12} ; two such precizations of T_2 would be T_{21} and T_{22} . The two pairs of higher-level precizations of T_0 constitute heteronymous reference classes for interpretations of the two first-level precizations of T_0 . Continuing the process of precization in this manner, we obtain a precization pedigree that can be illustrated as follows:



The two first-level precizations will be said to indicate two main *directions of precization*; the four second-level precizations, four subdirections.

Each entry in the pedigree expresses a hypothesis about usage. If one does not take into account usages developed after a fixed time limit, the process of precization will sooner or later come to a standstill. If artificial stimulation by questionnaires or other means is resorted to, there may be no limit to the process except the limit set by limited resources of time, respondents, and analysts.

Pooling the precizations of different levels into one list, one gets a *branched reference class* for T_0 . It is not heteronymous, since, for example, T_{12} may be a synonymic alternative of T_1 . Each vertical column of expressions makes up a heteronymous reference class, whereas nonvertical groupings give nonheteronymous expression classes.

The steps in preciseness and the heteronymity relation are for the purpose of this section defined in relation to an analyst, the constructor of the list and reader of T_0 . If T_0 is a declarative sentence belonging to a science or technique of which the analyst is a professional student, and T_0 is written by a person with very superficial knowledge of that science or technique, one must expect that many of the distinctions that are used as a basis for constructing the branched reference class are totally unknown to the writer of T_0 .

If, let us say, T_0 is «The distance between the sun and the earth is 149.5 million kilometers», the higher levels of precization are based on rather

technical distinctions presuming knowledge of a number of problems of astronomical measurements of distance. The distinctions are usually expressed in technical language known only to specialists, but let this complication be left out of consideration at the moment. It is here presumed that one can substitute well-known words of the vernacular for the technical terms.

Now, let us suppose a person reports that when writing T_0 he has intended T_1 rather than T_2 , and T_{12} rather than T_{11} or T_{13} . The distinctions used as *fundamenta divisionis* by the constructor of the reference lists—for example, distinctions between mean yearly distance and distance from a particular point of the earth's orbit—have so far been of a kind familiar to the writer who used T_0 . But suppose now that at certain points of the reference list, a distinction (for example, that between T_{121} and T_{122}) is used that is perfectly unknown to the writer of T_0 . In accordance with the presumption made, we take it for granted that it is not only the expressions used in the reference list at this point but also the distinctions expressed that are completely new to the writer. He will report that he has intended neither T_{121} nor T_{122} .

This manner of reporting is inconvenient, because the same words were used under a set of very different circumstances, namely, when he reported that he had in mind neither T_{11} nor T_{13} , but T_{12} . The discrimination between T_{121} and T_{122} was not made, either explicitly or implicitly, by the writer of T_0 , whereas the discrimination between T_{11} , T_{12} , and T_{13} was made, at least implicitly: the writer intended something that was rather T_{12} than T_{11} or T_{13} , whereas he did not intend the third-order precization T_{122} , any more than he intended T_{121} . The *fundamentum divisionis* was unknown and not even indirectly contemplated or applied by him.

We shall say that under the described circumstances, the *limit of the definiteness of intention* of the writer of T_0 in relation to the direction of precization represented by the reference class T_0 ; T_1 , T_2 ; T_{11} , T_{12} ; T_{121} , T_{122} goes between the second and third steps of precization. The interpretation T_{12} represents the *maximal precization* in that direction within the limits of sender intention, whereas T_{121} and T_{122} are *transintentional precizations* in relation to that instance of use of T_0 .

If the limit of definiteness of intention of one person, P, goes between T_{12} and T_{121} and that of a second person, Q, goes between T_{121} and T_{1211} or even beyond further steps of precization, we shall say that Q has a *greater*

II. BASIC TERMS CONTINUED

definiteness of intention than P in relation to the branched reference class (as interpreted by the constructor of that class of sentences).

Thus, two kinds of misinterpretation should be distinguished: First, a person may attribute to a sentence T_0 a meaning, let us say, T_1 , whereas the person intended to express not T_1 , but T_2 . This is an *intrainventional misinterpretation*. Second, one may attribute to a sentence T_0 a meaning T_{121} , contrasted to T_{122} , T_{123} , etc., whereas all these interpretations are beyond the intention of the person. One makes the mistake of *transintentional misinterpretation*.

As here introduced, a sentence or designation used by a person P may be extensively misinterpreted by a person Q in spite of a very high degree of definiteness of intention on the part of P. One may mean something very definite but have a mediocre capacity of formulation, or may be unaccustomed to the language habits of the audience.

Consequently, it may also happen that whereas «b» is more receiver-precise than «a» in relation to a definite reference class, the person who says «a» may have a greater definiteness of intention than a person who says «b». Whereas interpersonal relations of preciseness are relations between what different persons mean by an expression, definiteness of intention is a characteristic of one person—it is always intrapersonal. A student who has just learned a little of the technical jargon of his science may use a relatively receiver-precise term «b» with very low definiteness of intention, whereas an old craftsman who uses the less receiver-precise vernacular term «a», uses it with a very high definiteness of intention.

II.3. Explication

a. Connotational Explication

In the terminology of Carnap and others, the term «explication» and related terms have been used for concepts that are in some ways related to the concepts of this work. One of the usages of «explicatum» seems to be closely related to our use of «transintentional or not transintentional precization». We shall, in order to stress the similarity, use «*connotational explicatum*» as a synonym for the designation of the wide concept of precization including transintentional precization.

There is, however, a need for concepts that stress denotational relations, and we propose in the following a concept of this variety.

b. Denotational Explication

Let $a, b, c \dots$ be things or states of affairs that by some people have been characterized as having a property supposedly expressed by a designation T . Let $f, g, h \dots$ be things that have been said by some not to have the property expressed by T .

One may say that T has been assumed to express a concept, and that $a, b, c \dots$ have been assumed to be subsumable and $f, g, h \dots$ unsubsumable under that concept in the form of denotata.

Let T_1 and T_2 within context S be two different precizations of T expressing concepts not both of which have (according to the analyst) the same denotata among the group of things $a, b, c \dots$.

If U is a designation expressing within S' a concept ' U ' such that

1. T_1 and T_2 are not both precizations of U for any persons in any situation, and
2. $a, b, c \dots$ are all denotata of ' U ' and $f, g, h \dots$ are not denotata (according to the analyst),

then U will be said to be a denotational explicatum of T in relation to $a, b, c, \dots, f, g, h, \dots, S$ and S' .

The process of finding explicata will be called «*explication*»; the expression for which an explicatum is found will be called the «*explicandum*». It will be said to be *explicated* by the explicatum.

The definiens expressions of these terms may themselves be conceived to be explicata of certain occurrences of «*explication*» in writings by Carnap.² That is, the introduced technical meanings are such that within the research field of the present work, our terms are explicata. We do not believe that the terms are explicata within the field contemplated by Carnap. His problems are not identical with ours.

As introduced above, it is seen that an explicatum U may be, but does not need to be, a transintentional or intentionally immanent precization, an interpretation or a synonymic alternative of the explicandum T . In spite

II. BASIC TERMS CONTINUED

of this, it may turn out to be methodologically sound to substitute U for T within a given field of research. In this respect, precizations and explicata have similar effects.

It may well be that a certain designation, U, seems more adequate (useful, fruitful, convenient) than any proposed precization or transintentional precization T_1, T_2, \dots of T. If that designation U is such that the things more or less generally and traditionally *assumed to be denotata* of a concept 'T', *are* (according to the analyst) *denotata* of 'U', then the substitution of U for T makes no change in the habit of classing those things under one heading—and this in spite of the possibility that nobody has ever interpreted T to mean the same as U.

The expressions «assumed to be denotata» and «are denotata» are used above to call attention to the kind of pretensions made by the analyst who proposes the denotational explication. He *asserts* that a, b, c . . . are denotata of 'U', whereas he may doubt or deny that one may say in strictness that a, b, c . . . are denotata of a concept expressed by T. He might prefer to make the more guarded statement that a, b, c . . . have been *assumed* to be denotata of T. The argumentation of the analyst may be as follows: «T is vague and ambiguous to such an extent that one cannot speak of any one definite concept being expressed by T. Consequently, one cannot single out definite denotata: the subsumption is not possible for lack of criteria of subsumation. The explicatum expression U is, however, sufficiently clear and precise to admit subsumption on the basis of definite rules.»

Or, the analyst who proposes to substitute U for T may argue as follows: «T has so far been sufficiently clear and precise for its purpose, but the concept 'T' is such that subsumption is, in practice, impossible or unnecessarily difficult. The practical testability of the subsumption hypotheses is too low. Many complicated auxiliary hypotheses are in each case needed, which also are to a large extent arbitrary. Therefore, I do not venture to assert that a, b, c . . . are or are not subsumable.»

Both argumentations, if valid, justify the substitution of U for T irrespective of whether U and T are synonymic alternatives.

By adopting U as a denotational explicatum of T and by a subsequent normative definition of T, namely, «From now on, T shall mean the same as U means», we avoid the need to change any traditional characterization of

a, b, c . . . in terms of T. That is, all the sentences of the form «a is T», «b is T» that were accepted before the adoption of the denotational explicatum and the normative definition, can be retained. They will, after the adoption of the normative definition, be synonymous with «a is U», «b is U», and so on.

If T is the expression «probable», and U is a denotational explicatum of «probable», all things *assumed* (by certain authors or groups) to be probable *are* probable in the sense of 'U' (according to the analyst). U may be a precisization of T, but need not be so. Nobody, until the time of the explication, may ever have intended to express 'U' by T. In spite of that, U may possibly be a good substitute for T in treatises on probability.

The following schematization stresses the relations of the introduced technical term to those previously introduced:

Exp(aPS, b, R)

The expression «a», as intended to be used by P within the situation (for example, field of research) S, is a denotational explicatum of the expression b, in relation to the reference class of assumed denotata R.

c. The Process of Explication

In the history of scientific concept formation there are a vast number of instances of processes that may be classed as explications. Some processes are well known, but require extensive quotation and historical narrative to be described adequately. The instances may be roughly indicated by listing an explicandum and explicatum for each.

Explicandum	Explicatum
change of speed (in the vernacular)	acceleration (in Grimsehl's textbook)
force (v.)	force (in Grimsehl)
aggressor (v.)	aggressor (as identified in international law)
probable (v.)	probable ₁ (in Carnap's terminology)
heavy metal (textbooks on chemistry after ca. 1850 and before ca. 1900)	heavy metal (contemporary textbooks on chemistry)
harder than (v.)	harder than (defined by Mohr's scale)
storm (v.)	full storm (defined by Beaufort's scale)

II. BASIC TERMS CONTINUED

Descriptions of a denotational explication hypothesis do not include description of motivation for the hypothesis or argumentations pretending to show that the explicatum satisfactorily fulfills the functions of a good explicatum. Roughly, a description of a denotational explication hypothesis includes the following items:

Description of explicandum T and explicatum U

Description of concept 'U'

Description of concepts T_1, T_2, \dots expressed (sometimes) by T

Description of references to denotata $a, b, c \dots$ and nondenotata $f, g, h \dots$
(Delimitation of the denotata as a group by designations «a», «b», «c» of the analyst and, possibly, the author)

Description of subsumption hypotheses needed to subsume $a, b, c \dots$ under 'U'

Description of group (or texts) assuming $a, b, c \dots$ to be denotata of a concept expressed by T

The process of explication involves tasks covered by the theories of this work:

To find out just how the explicandum has been *said* or *intended* to be used, we may have to analyze various definitoid statements and list various use occurrences. Various interpretations, subsumptions, and concepts of definition may have to be used, because no single set of interpretations will seem most plausible.

To find out just how the explicandum actually has been used, we may need to perform subsumption analysis, partly as an ingredient of occurrence analysis.

To communicate the results of analysis of the allegedly intended and actual use, we may find it necessary to establish interpersonal synonymity relations.

To analyze the interpersonal use of the explicandum, we may need to analyze discussions involving pseudoagreements and pseudodisagreements. To communicate the results of the analysis, we will need to establish further intersubjective synonymities.

After we have found what kind of concepts, if any, the explicandum ex-

presses, exploration of use of other terms may show that some of them express the same or similar concepts. The explication intended will then tend to be applied to all designations synonymous or near-synonymous with the original explicandum.

Efforts to find explicata will conveniently start with attempts at construction of ordinary intrapersonal precizations of the explicandum. But such attempts may rapidly be superseded by transintentional precizations: «Which concepts would have been formed if certain methods or principles had been applied consistently and with great rigor?» «Which new concepts of contemporary science do the precizations approximate?» «Could the concepts so far used, by fairly small but important changes, be made to fit into the new conceptual structure of a certain department of science?»

Tentative explicata should retrospectively be tested, so as to get a survey of differences of implications between using the explicandum and using the new concepts. This involves subsumption analysis and, maybe, interpersonal precization of the new concept designations.

Once we have found suitable explicata, the formulation of interpersonally precise reports involves exploration of possible interpersonal synonymities and the construction of interpersonally precise normative formulations of normative definitions.

Explication also involves (of course) activities other than the procedures described in this work. Estimates of fruitfulness must be made; attempts to find simple concepts will tend to determine the choice of explicata. Last, but not least, purely logical work has to be done.

II.4. Reference Classes

a. 'Reference Class'

In chapter I, synonymity sentences were classified by means of their marginal references. Very rarely, a synonymity sentence ««a» means the same as «b»» seems to be meant in the sense of universal synonymity, holding good for any person in any situation whatsoever. Distinctions between classes of occurrences, between sender interpretation and receiver interpretation and many others, are convenient in reformulating unspecified synonymity sentences so that their claims can be tested.

II. BASIC TERMS CONTINUED

The making of such reformulations is facilitated by concepts of ‘reference class’. Even a highly specified statement about a preciseness relation, for example, of the kind $\text{Pr}(aP_1S_1bP_2S_2)$, is defined by use of the expression «there exist no synonymic alternatives such that ---»:

$$\begin{aligned} (1) \text{Pr}(aP_1S_1bP_2S_2) =_d & \neg(\text{Ex}). \text{Synalt}(xP_1S_1aP_1S_1) \ \& \ \neg\text{Synalt}(xP_2S_2bP_2S_2) \\ & \ \& \ (\text{Ey}). \text{Synalt}(yP_2S_2bP_2S_2) \ \& \ \neg\text{Synalt}(yP_1S_1aP_1S_1) \\ & \ \& \ (\text{Ez}). \text{Synalt}(zP_1S_1aP_1S_1) \end{aligned}$$

Negating the negative existence sentences, we obtain universal sentences:

«For all synonymic alternatives such that ---».

It is not just preciseness relations that are defined by such «all»—and «there exist»—sentences. They are represented in normative definitions of ‘ambiguity’, ‘synonymic alternative’, and ‘interpretation’.

By «*reference class*», in general in this work, is meant a set of two or more numbered designations or declarative sentences in relation to which a property of something is asserted.

Just as the content of assertions is in part determined by the marginal references explicitly or implicitly assumed, their content will partly be determined by the reference class invoked. When no such class has been delimited, their content can be interpreted as a reference to any class whatsoever.

In social research one has become increasingly aware of the influence of frames of reference—whether explicitly formulated or tacitly assumed—on reported findings and on research projects. The introduction of the concept ‘reference class’ is motivated by the realization of that influence within semantics and logical analysis.

A kind of reference class has been used in the normative definition of ‘interpretation’, namely the class of expressions in an intrapersonally heteronymous reference list. Recapitulating:

A list of expressions will be said to constitute an *intrapersonally heteronymous reference list* for the persons P_1, P_2, \dots under conditions S_1 if for each person under conditions S_1 no member of the list is a synonymic alternative of any other.

The list is called «intrapersonal» because it is not contended that some

or all expressions, as interpreted by one of the persons, are heteronymous in relation to some or all expressions as interpreted by another person.

In symbols:

$$(2) (i). \text{Het}(T_1 P_i S_1 T_2 P_i S_1) \& \dots \& \text{Het}(T_{n-1} P_i S_1 T_n P_i S_1)$$

$$(3) (i) (j). \text{Het}(T_1 P_i S_1 T_2 P_j S_1) \& \dots \& \text{Het}(T_{n-1} P_i S_1 T_n P_j S_1)$$

Number (2) is required, but not (3) or the related requirement (4), which must be satisfied by intrapersonally heteronymous lists:

$$(4) (i) (j). \text{Syn}(T_1 P_i S_1 T_1 P_j S_1) \& \dots \& \text{Syn}(T_n P_i S_1 T_n P_j S_1)$$

That is, there is no guarantee that the list is interpreted in the same way by different persons. Sameness of interpretation is difficult to establish. If it is established, we shall speak of *interpersonally synonymous reference lists with intrapersonally heteronymous items*.

Both conditions (2) and (4) are in that case satisfied. From (2) and (4) follows (3).

The marginal reference S_1 is important because, if it were required of lists that their members should be heteronymous under whatever conditions, the possibility of choice of members would be unduly restricted.

b. Unambiguity in Relation to Reference Classes

Negated ambiguity sentences such as «*a*» is not ambiguous» and «*a*» cannot be interpreted in different ways» mean the same as «There is not a single pair of instances of *a*» such that the first member of the pair expresses a different meaning from the second».

Even if unambiguity sentences of this kind contain marginal references, they can plausibly be interpreted to assert hypotheses with considerable pretensions. Who is able to mention a single expression that, if sufficiently small nuances of cognitive meaning are considered, is not interpreted differently by different people or in different situations by the same person?

Methodological requirements of «unambiguity», for example, the often-heard requirement in public opinion research that questionnaires

II. BASIC TERMS CONTINUED

should be unambiguous, would be utopian and ridiculous if interpreted strictly in the above-suggested way.

In practice, the search for unambiguity is considered successful if certain ambiguities are avoided, certain sources of misinterpretation eliminated. The selection is based on estimates of relevance and importance. Elimination of all ambiguities does not enter into the problem situation except for very latitudinarian interpretations of «all».

In the case of questionnaires, preliminary testing is capable of furnishing material that suggests in which directions the most serious misinterpretations are found. A *scatter diagram of interpretations* may be constructed and reformulations attempted with the aim of reducing the scatter. The measure of success in the direction of unambiguity will be a measure dependent on the rather arbitrary units of the scatter diagram. Using the concept of reference class, one may say that the scatter diagram reflects the choice of a definite reference class of ambiguities in relation to which unambiguity is measured.

Let T_1, T_2, \dots, T_n be an intrapersonally heteronymous reference list, R_1 . An expression T_0 will be said to be intrapersonally unambiguous in reference to R_1 if there is no single pair of instances of T_0 such that the first member of the pair is synonymous with a member of the reference list and the second is heteronymous with that member.

If there is such a pair of members, the expression will be said to be *intrapersonally ambiguous* in reference to R_1 .

The usefulness of the information that an expression is or is not ambiguous in the above sense depends on the choice of reference class. If a random collection of sentences is used as the reference class, there will normally be no cases of synonymy with the expression T_0 , and the verdict will automatically be «unambiguous». Only if the list includes sentences that may be suspected to be synonymous with T_0 can the conclusion be expected to be of interest.

c. Preciseness in Relation to Reference Classes

To make profitable use of the term «preciseness» as introduced in chapter 1, one must either rely on a theory from which existence or nonexistence of certain types of interpretations can be derived, or discover and infer inductively

interpretations on the basis of observations. As long as there are no good theories on interpretation, the latter course must generally be selected if moderately well established hypotheses are required. The question then becomes, Given two formulations to be compared as regards preciseness, how is it practicable even to guess at the totality of possibilities of interpretation?

In practice, the most formidable obstacle has its source in the fact that we are usually not interested in hypotheses of preciseness with a narrowly intended subject matter. The measures we take against possibilities of misunderstanding are mainly motivated by our belief in their value for «general prevention» rather than by «special preventive» considerations.³ If the hypotheses of preciseness pretend to have great extension, the manifold of interpretations is so great and so difficult to delimit, that the hypotheses will tend to be unduly speculative.

Even if the difficulties mentioned above are overcome, assertions about preciseness relations, as defined so far, tend, if a wide range, to be unfruitful because of *lack of established denotata*.

Experiments performed with groups of students indicate that if formulations are compared extensively within large areas of application, they all tend to become *incomparable as to preciseness*. If T_1 is compared with T_0 , the normal relation will be that if there are some interesting interpretations that T_0 but not T_1 permits, there will be at least one interpretation of T_1 that T_0 does not permit. It is, in view of this situation, justifiable to maintain the following theorem as one with very few exceptions: there is no formulation that is more precise than another formulation in relation to the totality of possible situations and persons. In symbols:

$$(5) \neg(Ei)(Ej)(m)(n)Pr(a_i M_m b_j M_n)$$

If it were possible to measure «distance» between meanings, one might require that, to be called different, interpretations show a minimum distance. This would tend to increase the number of denotata. But no such measure has so far been worked out except in artificial languages.

Even if the possibilities of interpretation were practically surveyable, this would not make the introduced concept of preciseness as fruitful as possible for all purposes. In many fields of discussion, preciseness related to reference class would be preferable. Often, in science—even in linguistics—

II. BASIC TERMS CONTINUED

we are bound to make hypotheses about interpretations without having done any special investigations at all, or only very superficial ones. It is important to work efficiently with such hypotheses, and some concepts of preciseness should be adapted to the manipulations of them. Such concepts are concepts 'more precise than, in relation to reference class R'.

Let T_0, T_1, \dots, T_n be an intrapersonally heteronymous reference list, R_1 . An expression U will be said to be «intrapersonally more precise than an expression T in reference to the list R_1 » if, and only if, first, there are no interpretations of U among the members of the list that are not also interpretations of T , and second, there is at least one interpretation of T within the list that is not an interpretation of U , and at least one member of the list is an interpretation of U .

An equivalent normative definition may be given in terms of synonymic alternatives instead of interpretations.

II.5. Quantitative Measures of Preciseness Based on Reference Classes

We shall in view of the foregoing arguments usually restrict comparisons of level of preciseness to cases in which the comparison is made on the basis of groups of possible interpretations picked out more or less arbitrarily from the standpoint of the theory of sampling.

Suppose a set of sentences T, U, V, \dots as used within a certain field are to be compared. A list of formulations T_1, T_2, \dots, T_n is worked out, which includes what we without further investigation («intuitively») would expect are synonymic alternatives of T . To make this preliminary reference class more useful, we may try to select synonymic alternatives that we suspect never are synonymic alternatives of one another. If the latter requirement is fulfilled, and each member is at least an interpretation of T to one person in one situation, the reference class has been called «a *heteronymous reference class*». Within such classes, all interpretations are equally precise and all are more precise than the point of departure formulation T , provided preciseness is defined in relation to the class and the intuitive judgment is tenable.

Having constructed a preliminary and tentative reference class for T , we construct a class U_1, \dots, U_j for U , and add both classes. If a U_j is identical

II.5. Quantitative Measures of Preciseness Based on Reference Classes

with a T_i , then U_m is dropped from the total class. If a U_j is guessed to be a synonymic alternative of some T_i , it is also dropped from the total list. If it is required that the guesses about heteronymity be confirmed, it becomes necessary to test all hypotheses of the forms $\text{Synalt}(T_i T_j)$, $\text{Synalt}(U_i U_j)$, and $\text{Synalt}(T_i U_j)$. If the tests give disconfirmations as results, the intuitive judgment about heteronymity is confirmed. In the following development, this result is assumed to be established.

Next, the sentences $V \dots$ are treated in the same way as U . Ultimately, we will have constructed a total class of reference sentences, R , that is adapted to comparison of all sentences T, U, V, \dots . Let the members be called R_1, R_2, \dots, R_k .

The next step involves a study of possible relations of synonymy for at least one person within at least one situation (relative to the chosen field of investigation) between each sentence to be compared and every member of the reference class. That is, the following assertions have to be tested:

$\text{Synalt}(TR_1)$	$\text{Synalt}(UR_1)$	— — —
$\text{Synalt}(TR_2)$	$\text{Synalt}(UR_2)$	— — —
— — —	— — —	— — —
$\text{Synalt}(TR_k)$	$\text{Synalt}(UR_k)$	— — —

Suppose that each assertion is either confirmed or disconfirmed. Let $R(x)$ symbolize « x is a member of reference class R », and let « $\text{Pr}(TU, R)$ » stand for « T is more precise than U in relation to R ». Then we normatively define:

$$\begin{aligned}
 (1) \text{Pr}(TU, R) =_D & \neg (Ex). R(x) \ \& \ \text{Synalt}(xT) \ \& \ \neg \text{Synalt}(xU) \\
 & .\& \ (Ey). R(y) \ \& \ \text{Synalt}(yU) \ \& \ \neg \text{Synalt}(yT) \\
 & .\& \ (Ez). R(z) \ \& \ \text{Synalt}(zT)
 \end{aligned}$$

The normative definition is identical with (1s), page 63, except for inclusion of reference to R .

The number of members of R being finite, the following quantitative measure of preciseness, $\text{Pr}R$, suggests itself: S_{TR} is the number of members of R that are synonymic alternatives of T , that is, the number of confirmed hypotheses of the kind $\text{Synalt}(TR_i)$.

II. BASIC TERMS CONTINUED

$$(2) \Pr R_T = 1 - \frac{S_{TR}}{k}$$

$$\Pr R_U = 1 - \frac{S_{UR}}{k}$$

$$\text{---} \text{---} \text{---}$$

$$(3) \Pr(TU, R) =_D (1 - \frac{S_{TR}}{k}) > (1 - \frac{S_{UR}}{k})$$

That is, a sentence T is said to be more precise than a sentence U in relation to a reference class R if the number of synonymic alternatives of T in that class is less than the corresponding number of synonymic alternatives of U.

The formula makes $\Pr R = 1$ a maximum preciseness, and $\Pr R = 0$ a minimum preciseness. Because of the provision that there should be at least one synonymic alternative to the more precise of two sentences, the maximum measure of a sentence being more precise than others is:

$$\Pr R = 1 - \frac{1}{k} = \frac{k-1}{k}$$

It is to be noted that the quantitative measure applies even in cases in which T, U, V, . . . are incomparable in relation to preciseness defined by (1). Comparability requires, according to (1), that the synonymic alternatives of the more precise sentence are synonymic alternatives of the less precise. By the quantitative measure, synonymic alternatives are added up without any such requirement of overlapping.

The usefulness of the introduced measure is primarily limited by the arbitrary manner in which the reference class is constructed. Later, reference classes obtained by more refined techniques are discussed.

Let us consider a trivial example just to illustrate schematically the use of reference classes.

T: A train leaves Oslo at 9 o'clock.
U: A train leaves Oslo at 9 P.M.

Preliminary reference class for T:

T₁: A train leaves Oslo at 9 P.M.
T₂: A train leaves Oslo at 9 A.M.

II.5. Quantitative Measures of Preciseness Based on Reference Classes

- T₃: A passenger train leaves Oslo at 9.
T₄: A passenger train, or another kind of train, leaves Oslo at 9.
T₅: A train leaves Oslo at 9 standard time.
T₆: A train leaves Oslo at 9 daylight saving time.

Are these formulations heteronymous in the sense required? Certainly not. If I read a text including T₁, and a text identical with the first, except that T₃ occurred instead of T₁, I would in some situations interpret the formulations in the same way, maybe as expressing an assertion I should prefer here to express by the formulation T₇, «A passenger train leaves Oslo at 9 P.M.».

Instead of just leaving out T₃ as being an interpretation of both T₁ and T₂, we should prefer to take advantage of the formulation T₇ and replace all three, T₁, T₂, and T₃, with T₇ and T₈ («A passenger train leaves Oslo at 9 A.M.»).

Proceeding in the same way through all items on the list, we form a new list, which I suppose fulfills the requirements of heteronymy:

- T₁: A passenger train leaves Oslo at 9 A.M. standard time.
T₂: A passenger train leaves Oslo at 9 A.M. daylight saving time.
T₃: A passenger train leaves Oslo at 9 P.M. standard time.

Instead of writing the list in full, we may abbreviate:

t ₁	a passenger train
t ₂	a passenger train, or another kind of train
u ₁	leaves Oslo
v ₁	at 9 A.M.
v ₂	at 9 P.M.
w ₁	standard time
w ₂	daylight saving time

The individual formulations may then be symbolized by combinations of the suffixes of their constituent designations:

- T₁ - T(IIII)
T₂ - T(IIII2)

II. BASIC TERMS CONTINUED

$$\text{---} \text{---} \text{---}$$

$$T_8 - T(2122)$$

Proceeding to U, we construct a preliminary list and then a heteronymous list. The requirement that the total list, R, be heteronymous results in a reduction of the U list, leaving no members to add to the T list. This may be considered a rather special case.

Using definition (1), we find it satisfied, provided T is exchanged for U. The formulation U does not permit the interpretations containing v_1 ; T permits even these. Moreover, there is no combination that U permits, but not T. Thus, $\text{Pr}(UT, R)$. This is (of course) a hypothesis made on the basis of unsystematic observation by one respondent, namely myself, but I expect others to agree on the decision as regards interpretation of T and U and their heteronymity.

When T and U are not so trivial as in the above example, the decisions will tend to be more uncertain if systematic observation is neglected.

Using (2) we find:

$$\text{Pr}R_T = 1 - \frac{8}{8} = 0.00$$

$$\text{Pr}R_U = 1 - \frac{4}{8} = 0.50$$

The formulation «A passenger train leaves Oslo at 9 P.M.» gets the score $1 - \frac{2}{8} = 0.75$.

The reference class could easily be made more extensive—I do not think there is any limit except that imposed by limited depth of intention. We could take into account what «leaves Oslo» possibly could mean, say, leaving some end station, or crossing the boundaries of the city Oslo. Or, we could take into account whether the time indication was one of observation or one read in a schedule, or both. Or, we could take up what is meant by «9 o'clock», whether exactly 9 or 9 with a margin of half a minute, or what else might be a habitual way of interpreting «9 o'clock» among those whose definiteness of intention is great enough to enable them to answer.

If R were extended in this way, the score of U would steadily drop. U would continue, however, to be more precise than T. I cannot think of any possibility by which an extended list would render U and T incomparable

II.5. Quantitative Measures of Preciseness Based on Reference Classes

as regards preciseness, except were we to take into account secret codes according to which 9 P.M. means 9 A.M., and vice versa. However, such special cases we may regard as beyond the limits of practical possibilities.

In these simplified examples, the reference class is selected on the basis of rather well founded hypotheses of preciseness: only sentences are selected that can safely be regarded as more precise than at least one of the sentences to be compared. Usually, it is not possible to select in such a way.

If the reference class is steadily increased, the chance increases that we will include in the reference class interpretations that make T and U incomparable with regard to preciseness. There will be found some interpretations of U that are not interpretations of T. In the example studied, this is very unlikely to happen. All sentences of the preliminary reference class R have been obtained by adding expressions to the original sentences. Generally, the difference between formulations cannot be defined by such additions, which at the same time lead to greater preciseness.

The importance of heteronymity within reference classes is especially manifest if the quantitative indicator (2) of preciseness is used. Let us illustrate the effect of heteronymity by neglecting it.

Suppose we try to compare T, «It is true that less than 5 percent of human adults can tell which colors are seen in rainbows», and U, «Less than 5 percent of human adults can a.s.o.». Let us select the following formulations as reference class:

- R₁: It is perfectly certain that a.s.o.
- R₂: It is quite certain that a.s.o.
- R₃: I guess, less than 5 percent of human adults a.s.o.
- R₄: It is a fact that a.s.o.
- R₅: It is the case that a.s.o.

Suppose we are to compare T and U as regards preciseness, and find that within the group P, T is more precise than U in relation to the reference class, because T does not permit the interpretation R₃, whereas U permits all of them, including R₃.

Using (2), we find that T gets the score $1 - \frac{4}{5} = 0.20$ and U gets $1 - \frac{5}{5} = 0$. If the reference class is made to include still more partial synonyms of R₁, etc., the score of T approaches that of U, that is, approaches zero. But if

II. BASIC TERMS CONTINUED

level of preciseness shall have anything to do with avoiding ambiguities causing misunderstanding, the small score of T is misleading: there is no evidence that for every new interpretation put into the list, a new possibility of misunderstanding creeps in. On the contrary, there is reason to suppose that no further ambiguities are caused by the accumulation of partial (or total) synonyms in the reference list.

II.6. Reflexivity, Symmetry, and Transitivity of Some Relations

In chapter I, a number of terms were introduced and certain relations between them stipulated. To make the terms more suitable as concept designations, it is desirable to take notice of further relations, in part implied by the normative definitions, in part postulated by additional terminological conventions.

Among the many attributes of relations worthy of consideration, three pairs are rather basic and simple: reflexivity, symmetry, and transitivity, and their opposites.

Taken in wide connotations, 'reflexivity' may be a property implied by definition, or a property empirically established. The same holds true for 'irreflexivity'. In this work the two possibilities are kept apart by using the terms «reflexivity» and «empirical reflexivity». Analogous distinctions are named in the same way. Thus, we have «irreflexivity» for lack of reflexivity implied by definition, and «empirical irreflexivity».

In this section reflexivity, and so forth, of certain relations introduced in the last chapter is considered.

a. Synonymity

The expression ««a» is synonymous with «b»» suggests a relation between «a» and «b», but nothing has been said about this relation, which has a bearing on the question of reflexivity. Let us, however, consider a pair of interpretative sentences of the skeletal form «--- has the meaning . . .», such that they can be brought into the form:

««a» has the meaning N_1 .»

««b» has the meaning N_2 .»

II.6. Reflexivity, Symmetry, and Transitivity of Some Relations

Such pairs of interpretative sentences may be connected with synonymy sentences if it is said whether 'a' and 'b' are identical or different. If identical, the pair can be rewritten thus: «*a*» has the meaning N_1 and «*b*» has the meaning N_2 , and N_1 and N_2 are identical».

It is tempting to define concepts of synonymy by means of such complex sentences involving reference to identical meanings. It is not in this work done in just that way, but let us consider for the moment what would follow if such were carried out. Accordingly, we decide: «*x* is synonymous with *y*» shall in this section mean the same as «*x* expresses the meaning N_1 and *y* expresses the meaning N_2 , and N_1 and N_2 are identical».

For *x* and *y*, only a pair of expressions or instances of expressions may occur, either a pair of designations or a pair of declarative sentences. This and other conventions concerning the symbols $\text{Syn}(\text{---}, \text{---})$, introduced in chapter I, shall be taken as valid also for this section.

For N_1 and N_2 , any pair of entities may occur, the members of which can be said to be identical or not to be identical. This means that we do not try to indicate how meanings can be described.

In convenient symbols:

$$(1) \text{Syn}(xy) =_d \text{Sign}(xN_1) \ \& \ \text{Sign}(yN_2) \ \& \ \text{Id}(N_1N_2)$$

Now the question of reflexivity may be attacked. By substituting *x* for *y* in (1), we get:

$$(2) \text{Syn}(xx) \sim \text{Sign}(xN_1) \ \& \ \text{Sign}(xN_2) \ \& \ \text{Id}(N_1N_2)$$

Whether $\text{Syn}(xx)$ holds good depends on whether one may write:

$$(3) (x). \text{Sign}(xN_1) \ \& \ \text{Sign}(xN_2) \supset \text{Id}(N_1N_2)$$

Until now, no conventions have been introduced concerning the symbol « $\text{Sign}(\text{---}, \text{---})$ » that can justify the assertion of (3). Let us make the following convention:

$$(4) \text{Sign}(aN_1) =_D (i)(j). \text{Sign}(aP_iS_jN_1)$$

II. BASIC TERMS CONTINUED

where the right-hand expression may be read «The expression «a» signifies N_1 for all persons in all situations».

From (4) follows:

$$(5) \text{Sign}(aN_1) \supset \neg(Ei)(Ej). \text{Sign}(aP_iS_jN_2) \ \& \ \neg \text{Id}(N_1N_2)$$

From (5) follows (3), and from (3) follows the left-hand side of (2). The conclusion may be thus formulated, that if the following conventions are accepted—a normative definition of «x is synonymous with y» as indicated by (1); and a normative definition of «x signifies N_1 » as indicated by (4)—then the relation of synonymity, «x is synonymous to y», is *reflexive*. In symbols, and somewhat reformulated:

(6) If

$$(i)(j)\text{Syn}(aP_iS_jbP_iS_j) =_d$$

$$(i)(j)\text{Sign}(aP_iS_jN_1) \ \& \ (i)(j). \text{Sign}(bP_iS_jN_2) \ \& \ \text{Id}(N_1N_2)$$

then

$$(i)(j)\text{Syn}(aP_iS_jaP_iS_j)$$

It is to be noted that from $(Ei)(Ej). \text{Sign}(aP_iS_jN_1)$ and $(Ei)(Ej). \text{Sign}(aP_iS_jN_2)$ it cannot be inferred that N_1 and N_2 are identical. The expression «a» may be ambiguous.

By use of the normative definition, (1), of 'synonymity', the symmetry of the synonymity relation is proved directly. Substituting x for y and y for x in (1), we get:

$$\text{Syn}(yx) \sim \text{Sign}(yN_1) \ \& \ \text{Sign}(xN_2) \ \& \ \text{Id}(N_1N_2)$$

N_1 and N_2 being identical, they can replace each other:

$$(7) \text{Syn}(yx) \sim \text{Sign}(yN_2) \ \& \ \text{Sign}(xN_1) \ \& \ \text{Id}(N_1N_2)$$

On the other hand, from (1) follows:

$$(8) \text{Syn}(xy) \supset \text{Sign}(xN_1) \ \& \ \text{Sign}(yN_2) \ \& \ \text{Id}(N_1N_2)$$

II.6. Reflexivity, Symmetry, and Transitivity of Some Relations

$$(9) \text{Syn}(xy) \supset \text{Sign}(yN_2) \& \text{Sign}(xN_1) \& \text{Id}(N_1N_2)$$

The right-hand side of (9) is the same as that of (7). Therefore:

$$(10) \text{Syn}(yx) \supset \text{Syn}(xy)$$

From (7) and (9) also, the stronger assertion of equivalence is proved:

$$(11) \text{Syn}(xy) \sim \text{Syn}(yx)$$

Conclusion: Synonymity as defined by (1) is symmetrical.

From (1) and (4) follow by proper substitutions:

$$(12) \text{Syn}(ab) \& \text{Syn}(bc) \sim$$

$$(i)(j). \text{Sign}(aP_iS_jN_1) \& (i)(j). \text{Sign}(bP_iS_jN_2) \& \text{Id}(N_1N_2) \\ \& (i)(j). \text{Sign}(bP_iS_jN_2) \& (i)(j). \text{Sign}(cP_iS_jN_3) \& \text{Id}(N_2N_3)$$

$$(13) \text{Syn}(ab) \& \text{Syn}(bc) \supset$$

$$(i)(j). \text{Sign}(aP_iS_jN_1) \& (i)(j). \text{Sign}(cP_iS_jN_3) \& \text{Id}(N_1N_3)$$

From (1), (4), and (13) follows:

$$(14) \text{Syn}(ab) \& \text{Syn}(bc) \supset \text{Syn}(ac)$$

Synonymity defined by (1) and (4) is a *transitive* relation.

It is again essential to note the qualification that (1) and (4) must be presumed. If we use the name «universal synonymity» for synonymity valid for any person and any situation, the conclusion may be reformulated: universal synonymity defined by (1) is transitive.

b. Heteronymity

A term «heteronymous» can in analogy with (1) be introduced as follows:

«x is heteronymous with y» shall within this section mean the same as «x expresses the meaning N_1 and y expresses the meaning N_2 , and N_1 and N_2 are different».

II. BASIC TERMS CONTINUED

The new property shall be considered defined for the same range of entities, designations, and declarative sentences.

In symbols:

$$(15) \text{Het}(xy) =_d \text{Sign}(xN_1) \& \text{Sign}(yN_2) \& \text{-Id}(N_1N_2)$$

Let us consider the possibility that y is identical with x . «Heteronymy of x with x » would according to (15) mean that x expresses two different meanings. If one can affirm about x two interpretative sentences « x means N_1 » and « x means N_2 », then there are two implied synonymy sentences such that « x means the same as « c » and x means the same as « d » and $\text{Het}(cd)$ ». In symbols: $\text{Syn}(xc) \& \text{Syn}(xd) \& \text{-Syn}(cd)$. Now, according to a convention of chapter 1, section 2, $\text{Syn}(ab)$ is an abbreviation for $(i)(j)\text{Syn}(a_i b_j)$, and one may from this deduce:

$$\text{Syn}(ab) \supset (\text{Syn}(ac) \& \text{Syn}(ad) \& \text{-Syn}(cd))$$

If, now, $\text{Het}(x,x)$ implies the right-hand-side parenthesis of this implication, it implies something that is by adopted conventions ruled out. We may therefore assert the *irreflexivity* of heteronymy. It is to be noted, however, that this conclusion only applies to the sentences that can be brought into the form $(i)(j)\text{Het}(ab)$. A more precise conclusion would therefore be: ‘universal heteronymy’ is an irreflexive relation.

By use of the introduced conventions it is easily seen that ‘heteronymy’ is symmetrical. Let us consider transitivity.

From (15) follows

$$\begin{aligned} \text{Het}(xy) \& \text{Het}(yz) \sim. \text{Sign}(xN_1) \& \text{Sign}(yN_2) \& \text{-Id}(N_1N_2) \\ \& \text{Sign}(yN_2) \& \text{Sign}(zN_3) \& \text{-Id}(N_2N_3) \end{aligned}$$

Now, from

$$\text{-Id}(N_1N_2) \& \text{-Id}(N_2N_3)$$

does not follow $\text{-Id}(N_1N_3)$. $\text{Id}(N_1N_3)$ is possible. Therefore:

$$(16) \text{Not: Het}(xy) \& \text{Het}(yz) \supset \text{Het}(xz)$$

The relation of heteronymity is not *transitive*. Neither can $\neg\text{Het}(xz)$ be proved. The relation is therefore *not intransitive* (by definition). Empirically, $\text{Het}(xz)$ and $\neg\text{Het}(xz)$ may occur with considerable frequency for all we know. There is, therefore, no reason to postulate empirical transitivity or empirical intransitivity.

c. Synonymic Alternatives

That an expression «a» is a synonymic alternative of «b» is defined normatively in terms of the existence of at least one case of synonymy between «a» and «b». If «b» is identical with «a», the assertion gets the form «There is at least one case of synonymy between a pair of occurrences of «a»». It is, however, possible that «a» never is used, or will be used, twice with the same meaning. The relation of synonymic alternative is *not reflexive* (by definition). Neither is it irreflexive (by definition). Mostly, there will be a pair of occurrences such that $\text{Synalt}(aa)$ holds good: the relation is *empirically reflexive*.

In symbols:

$$\begin{aligned} \text{Synalt}(ab) &\sim (Ex)(Ey). x\in a \ \& \ y\in b \ \& \ \text{Syn}(xy) \\ (17) \text{Synalt}(aa) &\sim (Ex)(Ey). x\in a \ \& \ y\in a \ \& \ \text{Syn}(xy) \end{aligned}$$

There does not exist by definition such a pair (x,y) that it satisfies the right-hand expression of (17).

The assertion that there exists at least one pair of synonymous instances of «a» and «b» may be written:

$$\begin{aligned} (18) \text{Syn}(a_1b_1) \vee \text{Syn}(a_1b_2) \vee \dots \vee \text{Syn}(a_1b_m) \\ \vee \text{Syn}(a_2b_1) \vee \text{Syn}(a_2b_2) \vee \dots \vee \text{Syn}(a_2b_m) \\ \vee \dots \\ \vee \text{Syn}(a_nb_1) \vee \text{Syn}(a_nb_2) \vee \dots \vee \text{Syn}(a_nb_m) \end{aligned}$$

Whereas $\text{Synalt}(ab)$ is equivalent to the above disjunction, $\text{Synalt}(ba)$ is equivalent to

$$(19) \text{Syn}(b_1a_1) \vee \dots \vee \text{Syn}(b_ma_n)$$

II. BASIC TERMS CONTINUED

The equivalence of (18) and (19) can be shown only by taking up the question of the symmetry of $\text{Syn}(a_i b_j)$. If the normative definition (1) is used, this symmetry holds good and one gets:

$$(20) \text{Synalt}(ab) \sim \text{Synalt}(ba)$$

The relation of synonymic alternative is *symmetrical*, provided synonymity relations are symmetrical.

Suppose it is established that

$$(21) \text{Synalt}(ab) \& \text{Synalt}(bc)$$

(21) is equivalent to

$$(22) \text{Syn}(a_1 b_1) \vee \dots \vee \text{Syn}(a_n b_m) \& \text{Syn}(b_1 c_1) \vee \dots \vee \text{Syn}(b_m c_p)$$

The transitivity of the synonymity relation of the kind $\text{Syn}(x_1 y_1)$ implies that if there is a pair of instances of a_i, b_j and b_j, c_k such that

$$\text{Syn}(a_i b_j) \& \text{Syn}(b_j c_k)$$

then $\text{Synalt}(ac)$ follows from $\text{Synalt}(ab) \& \text{Synalt}(bc)$.

There may, however, in (22) be no such case. The relation of synonymic alternative is therefore not *transitive*.

d. Preciseness

Substituting «a» for «b» in the normative definition of «preciseness», chapter 1, section 12, (1s), one gets:

$$\begin{aligned} (23) \text{Pr}(aa) \sim & \neg(\text{Ex}). \text{Synalt}(xa) \& \neg\text{Synalt}(xa) \\ & \& (\text{Ey}). \text{Synalt}(ya) \& \neg\text{Synalt}(ya) \\ & \& (\text{Ez}). \text{Synalt}(za) \end{aligned}$$

The right-hand side of this equivalence contains contradictions. The relation of preciseness is therefore *irreflexive*.

II.6. Reflexivity, Symmetry, and Transitivity of Some Relations

From the normative definition of $\text{Pr}(ab)$ follows:

$$\begin{aligned} \text{Pr}(ab) \ \& \ \text{Pr}(ba) \supset \neg(\text{Ex}). \text{Synalt}(xa) \ \& \ \neg\text{Synalt}(xb) \\ & \ \& \ (\text{Ex}). \text{Synalt}(xa) \ \& \ \neg\text{Synalt}(xb) \end{aligned}$$

The right-hand side involves a contradiction. The relation of preciseness is therefore *asymmetrical*. From the normative definition of $\text{Pr}(ab)$ follow:

$$\begin{aligned} (24) \ \text{Pr}(ab) \ \& \ \text{Pr}(bc) \supset \neg(\text{Ex}). \text{Synalt}(xa) \ \& \ \neg\text{Synalt}(xb) \\ & \ .\& \ .(\text{Ex}). \text{Synalt}(xb) \ \& \ \neg\text{Synalt}(xa) \\ & \ .\& \ .\neg(\text{Ex}). \text{Synalt}(xb) \ \& \ \neg\text{Synalt}(xc) \\ & \ .\& \ .(\text{Ex}). \text{Synalt}(xc) \ \& \ \neg\text{Synalt}(xb) \\ (25) \ \text{Pr}(ac) \supset \neg(\text{Ex}). \text{Synalt}(xa) \ \& \ \neg\text{Synalt}(xc) \\ & \ .\& \ .(\text{Ex}). \text{Synalt}(xc) \ \& \ \neg\text{Synalt}(xa) \end{aligned}$$

From (24) follows:

$$\begin{aligned} \text{Pr}(ab) \ \& \ \text{Pr}(bc) \supset (\text{Ex}). \text{Synalt}(xc) \ \& \ \neg\text{Synalt}(xb) \\ & \ .\& \ .(x). \neg\text{Synalt}(xb) \supset \neg\text{Synalt}(xa) \\ (26) \ \text{Pr}(ab) \ \& \ \text{Pr}(bc) \supset (\text{Ex}). \text{Synalt}(xc) \ \& \ \neg\text{Synalt}(xa) \end{aligned}$$

On the other hand,

$$\begin{aligned} \text{Pr}(ab) \ \& \ \text{Pr}(bc) \supset (x). \text{Synalt}(xa) \supset \text{Synalt}(xb) \\ & \ .\& \ .(x). \text{Synalt}(xb) \supset \text{Synalt}(xc) \end{aligned}$$

Therefore,

$$(27) \ \text{Pr}(ab) \ \& \ \text{Pr}(bc) \supset \neg(\text{Ex}). \text{Synalt}(xa) \ \& \ \neg\text{Synalt}(xc)$$

From the N-definition of $\text{Pr}(ab)$ follows the existence of synonymic alternatives of «a». Consequently, from (26) and (27) and the normative definition, follows:

II. BASIC TERMS CONTINUED

$$(28) \text{Pr}(ab) \& \text{Pr}(bc) \supset \text{Pr}(ac)$$

The relation of preciseness, $\text{Pr}(ab)$, is *transitive*.

In those cases in which $\text{Synalt}(aa)$ and $\text{Pr}(ab)$ hold good, one can deduce that «b» is a synonymic alternative of «a»: from the normative definition of $\text{Pr}(ab)$, it follows that all synonymic alternatives of «a» must also be synonymic alternatives of «b»; hence, if «a» is a synonymic alternative of «a», then «a» must be a synonymic alternative of «b». From the symmetry of $\text{Synalt}(ab)$ follows the conclusion:

$$(29) \text{Pr}(ab) \& \text{Synalt}(aa) \supset \text{Synalt}(ba)$$

From $\text{Pr}(ab)$ alone, $\text{Synalt}(ab)$ or $\text{Synalt}(ba)$ does not follow: expressions may, in theory, be comparable in preciseness without admitting each other as synonymic alternatives. The less precise may never be used synonymously with the more precise. In practice, such cases seem exceedingly rare or even nonexistent.

e. Interpretation

In the adopted terminology, $\text{Int}(T_i P_1 T_0 P_1)$ means the same as «For P_1 T_i is sometimes synonymous to T_0 , and there exists a T_j such that $\text{Het}(T_j P_1 T_i P_1)$ and T_j sometimes is synonymous to T_0 ». That is,

$$(30) \text{Int}(T_i P_1 T_0 P_1) \supset \text{Synalt}(T_i P_1 T_0 P_1) \& (E_j). \text{Het}(T_j P_1 T_i P_1) \\ \& \text{Synalt}(T_j P_1 T_0 P_1)$$

Substituting T_0 for T_i in (30) one obtains:

$$(31) \text{Int}(T_0 P_1 T_0 P_1) \supset \text{Synalt}(T_0 P_1 T_0 P_1)$$

As the synonymic alternative relation is, according to (17), not reflexive, the interpretation relation is therefore *not reflexive*.

The interpretation relation is *not symmetrical* because $\text{Int}(T_0 P_1 T_i P_1) \supset \text{Synalt}(T_0 P_1 T_i P_1)$, and this synonymic alternative relation cannot be deduced from $\text{Synalt}(T_i P_1 T_0 P_1)$ or the whole of the right side of (30).

$$(32) \text{Int}(T_i P_1 T_0 P_1) \& \text{Int}(T_j P_1 T_i P_1) \supset \text{Int}(T_j P_1 T_0 P_1) \\ \cdot \supset. \text{Int}(T_i P_1 T_0 P_1) \& \text{Int}(T_j P_1 T_i P_1) \supset \text{Synalt}(T_j P_1 T_0 P_1)$$

The Synalt relation being not transitive, the right-hand side of (32) is not valid. The interpretation relation is therefore *not transitive*.

All derivations of this section have the sole purpose of clarifying interrelations between the basic terms introduced in the foregoing. The exercise is entirely of a formal or «pure» character, and completely useless for the development of a descriptive, hypothetico-deductive system of semantics as long as the introduced terms are not connected with *procedures of systematic observation*. Experience shows, however, that the erection of a conceptual framework is, on the one hand, sufficiently important to be considered in detail and, on the other hand, so much less complicated than the satisfactory implementation of empirical research programs, that the exposition of a basic conceptual framework can conveniently be made before empirical considerations are taken up. It should be unnecessary to repeat that the framework was not elaborated before empirical procedures were used, but hand in hand with empirical research.

II.7. Incomparability and Transintentionality in Relation to Preciseness

a. Equality of Preciseness

Let «a» and «b» be two expressions.

- (1) ««a» and «b» are *equally precise*» will in this work mean the same as «There are no synonymic alternatives of «a» that are not also synonymic alternatives of «b», and no synonymic alternatives of «b» that are not also synonymic alternatives of «a», and «a» has at least one synonymic alternative».

In short, «a» and «b» are equally precise, if they admit of the same synonymic alternatives.

In symbols:

$$(1s) \text{Idpr}(ab) =_d - (Ex). \text{Synalt}(xa) \& -\text{Synalt}(xb)$$

II. BASIC TERMS CONTINUED

.&. (Ex). Synalt (xa)

.&. - (Ex). Synalt (xb) & -Synalt (xa)

It can easily be shown that the relation 'equally precise' is reflexive, symmetrical, and transitive.

If an expression «a» is more, equally, or less precise than another expression «b», the expressions will be said to be *comparable* in preciseness; if otherwise, *incomparable*.

Incomparability is realized if, but not only if, each expression admits of synonymic alternatives that the other does not admit—in other words, if they both have their own synonymic alternatives.

In symbols:

(Ex). Synalt(xa) & -Synalt(xb) .&. (Ex). Synalt (xb) & -Synalt (xa)

: \supset : Incompr. (ab)

For many reasonable criteria of synonymy, most expressions will be incomparable. Of more interest is the question of comparability within subclasses of occurrences: the question of whether «a» of subclass M_i is comparable in preciseness to «b» of subclass M_j .

An expression «a» may or may not be a synonymic alternative of itself (see section 6, page 109). That is, there may or may not exist cases of synonymy between instances of «a». As a general rule, there are such cases. To be comparable in preciseness, «a» and «b» must, according to the normative definitions, each admit of a synonymic alternative. This necessary condition is as a general rule satisfied, because «a» generally has «a» as a synonymic alternative, and «b» has «b».

To be comparable in preciseness, expressions need not be synonymic alternatives of each other, but if they are comparable, they will have at least one synonymic alternative in common.

b. Preciseness and Transintentionality

Suppose that T_1 is more precise than T_0 for a person P, and that he sometimes uses T_1 , sometimes T_0 . The relation is presumed to be found by investigating the use occurrences of T_0 and of T_1 .

Suppose, further, that P's definiteness of intention is on the whole greater when he uses T_1 than when he uses T_0 . This is likely to happen: more precise formulations are likely to be the result of more careful evaluation of terms and more careful introspection of intentions.

Suppose, lastly, that it is found that an expression T_2 is more precise than T_1 , taking use occurrences of T_1 by P as subject matter of this preciseness relation. It is of importance to note that the marginal references are assumed to be different in the two cases of preciseness relation, and that therefore the transitivity theorem of section 6 does not cover them. In other words, from T_1 being more precise than T_0 under certain conditions, and T_2 being more precise than T_1 under other conditions, it does not follow that T_2 is more precise than T_0 .

It may happen, that in relation to use occurrences of T_0 by P, all those interpretations of T_2 that were considered in order to arrive at the conclusion that T_2 is more precise than T_1 , are transintentional in relation to use occurrences of T_0 .

Occurrences of T_0 may for P be accompanied by such a low definiteness of intention that one cannot say positively whether T_0 *for P sending* T_0 admits of all interpretations of T_2 . The possibility of such interpretations is not even implicitly considered by P. Consequently, one cannot use the normative definition of «more precise than». T_2 and T_0 are, in relation to use occurrences of T_0 by P, *incomparable* in preciseness, whereas T_2 is more precise than T_1 in relation to use occurrences of T_1 by P.

This kind of incomparability, here attached to use occurrences, may equally well hold good in relation to interpretative processes during reading and listening.

Roughly speaking, superficiality may function to guard against misinterpretation: the wording of a formulation T_0 may be such that it does not seem to pretend to be the product of close, concentrated attention and deep reflection. Moreover, the sender may speak without having fairly definite things to say. The receiver understands the situation and does not concentrate his search for definite meanings. There is in such cases little room for misinterpretation because there is very little to misinterpret. The process of interpretation, in cognitive senses, is functioning only very feebly, but, maybe, highly efficiently in the situations under consideration.

If the sender of T_0 , in order to avoid ambiguities, reformulates his

II. BASIC TERMS CONTINUED

words, and uses T_2 instead, the fairly strong precization is likely to contain complicated expressions and is apt to arouse the attention of the receiver. His concentrated effort to catch the intended meaning, and just the intended meaning, is apt to make him survey a series of *possibilities*. He may lose his intuitive understanding of the situation. Chances of misinterpretation may increase to such a degree that the need for further precization is acutely felt. The normally preconscious process of interpretation is rendered conscious and may result in awareness of difficulties of interpretation that had never occurred to the receivers of less complicated formulations.

All this is in no way to be considered fatal to efforts of precization as a means of avoiding misinterpretation, but it reminds us of the difficulties and of the unlimited manifold of subdirections of precization branching off from the main directions when the definiteness of intention grows. The quest for high definiteness of intention may, but need not, spoil the chances of successful communication.

II.8. Comparison of Preciseness of n Sentences in Relation to a Heteronymous Reference Class

We shall in this section conclude our discussion of reference classes by describing a comparison of n sentences as regards preciseness, within the same type of context and for the same class of persons, by means of heteronymous reference classes.

Let us call the sentences the preciseness of which is to be compared, T_1, T_2, \dots, T_n . A tentative, preliminary list of synonymic alternatives is made for T_1 , and modified until no pair of sentences in the list are synonymic alternatives of each other, whereas all are interpretations of T_1 . This requirement of heteronymity implies that each sentence is as precise as or more precise than T_1 , provided the list itself is taken as the reference class.

Let us call the individual synonymic alternatives listed R_1, R_2, \dots, R_m . We presume that synonymy questionnaires or other methods have been used to establish heteronymity between any pair.

The next step is to provide T_2 with an analogous tentative reference class. Sentences that already belong to the first class are not included in the second. The new class is modified until no synonymic alternative is a synonymic alternative of any other sentence in the two classes.

The rest of the sentences T_i are dealt with in the same way. All n reference classes are then combined into one large class R , and the preciseness of the individual T_i is found in relation to that class.

A sentence T_i is more precise than a sentence T_j in relation to R if there is at least one sentence in R that is an interpretation of T_j but not of T_i , and no sentence vice versa. The relation of preciseness implies that all sentences of R being interpretations of T_i must be interpretations of the less precise T_j . This interpretability is a necessary, but not sufficient condition of T_i being more precise than T_j . Thus, it is convenient first to see whether or not T_i satisfies this condition.

The comparison so far includes the following steps:

1. Making n preliminary lists of synonymic alternatives based on guesses (intuitions). (Preliminary reference classes.)
2. Eliminating, in other lists, formulations already adopted in one list. (Elimination of duplicates.)
3. Checking on heteronymity among the rest of the formulations and eliminating formulations that (sometimes or always) are synonymic alternatives of some other formulation of the total reference list, for example, eliminating total or partial synonymities from the preliminary reference class.
4. Testing supposed synonymity relations. Eliminating reference formulations that, according to the results of tests, are not synonymic alternatives of *any* of the formulations to be compared for preciseness. This process and that of step 3 often suggest the advisability of adding some formulations to the preliminary list.
5. Comparing preciseness in relation to the resulting revised reference class. (The final, first-order class.)

To improve the reference class, it is necessary to look for ambiguities. If a formulation R_i among the persons and situations at issue sometimes is considered synonymous with R_{i1} , and sometimes with R_{i2} , and the latter two formulations are considered heteronymous in all situations by all persons concerned, R_i may profitably be eliminated from the final, first-order reference class and replaced by the two sentences R_{i1} and R_{i2} . A new reference class is constructed by revision of the old.

II. BASIC TERMS CONTINUED

If we are interested in getting a reference class that, on the one hand, is as small as possible but, on the other hand, may prove to be a fair sample of richer reference classes, it is important to impose further checks on its members.

In relation to the new, more refined, and normally richer class, the relations of preciseness of the formulations to be compared may turn out to be different from the relations originally found.

The steps leading from a comparison on the basis of the first-order reference class to one of the second order may be indicated as follows. The steps are closely analogous to the steps leading to the first nonpreliminary reference class:

1. Making preliminary interpretational lists based on guesses, one list for each of the m formulations of the first-order reference list. Compared with the original interpretational list, these new lists are reference classes of a reference class. They will therefore be called «preliminary reference classes of the second order».
- 2–5. Following steps analogous to steps 2–5 described above.

With the new reference class as a starting point, one may proceed to construct still more refined classes, reaching, step-by-step, classes of the n th order. It is to be expected, however, that fewer changes in the conclusions regarding the preciseness of the n original formulations will result with each step toward higher-order reference classes. Further, the internal differences of meaning among the members will tend to be of less importance or will fall below the intentional depth of the persons whose usage is being investigated.

Suppose U is found less (intrapersonally) ambiguous than T for P_1 in S in relation to a reference class R , which is heteronymous in relation to the usage of P_1 .

If we now ask whether U is also less (intrapersonally) ambiguous for P_2 , we shall have, first, to check that R is a heteronymous reference class for P_2 . Second, we shall have to compare the preciseness of T and U in relation to R . If it is found that U is (intrapersonally) more precise than T , we have established two relations of intrapersonal ambiguity.

We may take these relations as strong support for a hypothesis that U is

interpersonally less ambiguous than T, but this depends on interpersonal synonymities. We do not yet know whether any member *r* of the reference class means the same to P_1 as any of them means to P_2 . In chapter 7, we take up the problem of how to introduce interpersonal synonymity operationally.

II.9. Preciseness of Single Acts of Communication

In chapter 1, we introduced a concept of a particular subclass of occurrences of «a» being more precise than a particular subclass of «b» (see section 12(2), page 64). We shall say that «a» is more *asserter-precise* for P_1 in S_1 than «b» is for P_2 in S_2 , if we limit our comparison of interpretations to those that are possible for P_1 as asserter of «a» and for P_2 as asserter of «b». Thus, we get a rather complex definitional formulation, the first part of which is given below under (1). It is obtained by substituting ««a» for P_1 as asserter of «a» in S_1 » for «a» and ««b» for P_2 as asserter of «b» in S_2 » for «b» in (1) on page 62.

- (1) If, and only if, every synonymic alternative to «a» for P_1 as asserter of «a» in S_1 is also a synonymic alternative to «b» for P_2 as asserter of «b» in S_2 , and . . . , then «a» will be said to be more asserter-precise for P_1 in S_1 than «b» is for P_2 in S_2 .

Receiver preciseness is introduced in the same way, *mutatis mutandis*.

The designation «asserter» refers to the person who performs the asserting. By that act, however, the asserter will normally be stimulated by the produced sounds or visual pattern. He will act as receiver and may change his formulations as a consequence of the impression his own assertion makes. It is, therefore, somewhat difficult and unfruitful to try to distinguish interpretations made by a person asserting a formulation and interpretations made by the same person as receiver of that formulation at a slightly later moment. There are, on the other hand, reasons to suspect that we as receivers very often repeat the message to ourselves. We stimulate ourselves to obtain stronger reactions than possible by the initial reception of the message. Especially if the formulations are somewhat difficult, it is normal to repeat more or less articulately what we hear or read.

For the purposes of this work, it is not deemed necessary to go into details as regards these interesting and complex problems of psychological

II. BASIC TERMS CONTINUED

descriptions. They will have to be attacked in future refinements of interpretational theory. Here, we limit ourselves to laying down that by an «act of assertion» we mean an act, one of the characteristics of which is speaking or writing. Analogously, we shall call a person «a receiver» if he is listening or reading, regardless of the subordinated acts of repetitions that we may find connected with the hearing or reading.

If S is a type of situation that often recurs, differences in level of asserter preciseness are easily exemplified. Let us take the trivial case of a person P saying «Coming home on the train at 6 o'clock» to his wife, who may represent part of S. Let us call the formulation «a». During certain time intervals, «a» may (for P) be synonymous with «Coming home on the train at 6 o'clock daylight saving time» («b»); during other time intervals, with «Coming home on the train at 6 o'clock standard time» («c»). If S is so defined that it includes all seasons of the year, «a» admits synonymic alternatives (as interpreted by P as an asserter) that «b» does not admit. If no synonymy between «b» and a formulation «d» is found, which to P as sender of «d» is a synonymic alternative of «b» but not of «a», we shall, according to the definition, say that «b» is for P as asserter in S more asserter-precise than «a» for P as asserter in S.

If, on the other hand, S is delimited in such a way that it falls well within the season of daylight saving time, «c» is probably not even occasionally synonymous with «a» for P as an asserter. In that case, «b» does not improve its asserter-preciseness in comparison to «a».

If S is successively made narrower and narrower, we get as a limiting case a single, datable occurrence of asserting. There is no longer a question of possibilities of interpretation under various circumstances, but of how «a» was interpreted on a particular occasion.

Somebody might suggest that only one interpretation is made on a single occasion. There may be only one *process of interpretation*. What is called «interpretation» in this work is what is expressed by a formulation with certain relations to some other formulations (see page 53).

If P₁ sends «a» and answers positively that he might have used «b» without change of meaning, and he also answers positively in relation to «c», we may infer that if he had asserted «b», he would have answered positively if confronted with «c». Actual experiments confirm this expectation. The relation of synonymic alternative as applied to the asserting of

formulations by one person in a single datable situation is empirically transitive.

Let S_1 symbolize a definite datable situation characterized by the occurrence of a single process of interpretation. We may then write:

- (2) $\text{Synalt}(aS_1bS_1) \supset \text{Syn}(aS_1bS_1)$
- (3) $\text{Synalt}(aS_1bS_1) \ \& \ \text{Synalt}(aS_1cS_1) \supset \text{Synalt}(bS_1cS_1)$
- (4) $\text{Synalt}(aS_1bS_1) \ \& \ \text{Synalt}(aS_1cS_1) \supset \text{Syn}(bS_1cS_1)$

If «b» is a synonymic alternative of «a» in S_1 , then all synonymic alternatives of «b» in S_1 will be synonymic alternatives of «a» in S_1 . This owes to the properties of the relation of synonymy:

- $(x)(y) . \text{Synalt}(xS_1yS_1) \supset \text{Syn}(xS_1yS_1)$
- $(x)(y)(z) . \text{Syn}(xS_1yS_1) \ \& \ \text{Syn}(xS_1zS_1) \supset \text{Syn}(yS_1zS_1)$

Therefore:

$$\text{Synalt}(bS_1aS_1) . \supset . (x) . \text{Synalt}(xS_1bS_1) \supset \text{Synalt}(xS_1aS_1)$$

If both «b» and «c» are synonymic alternatives of «a» in S_1 , all three will have exactly the same synonymic alternatives. From this and the normative definition of «preciseness» it follows that, in relation to S_1 , no expression can be more precise than any other. They will all be equally precise.

In symbols:

$$(x)(y) . \text{Synalt}(xS_1yS_1) \supset \text{Idpr}(xS_1yS_1)$$

From

$$\text{Amb}(a) \sim (Ei)(Ej) . \text{Het}(a_i a_j)$$

follows

$$\text{Amb}(aP_1S_1) \supset (Ei)\text{Het}(aP_1S_1a_iP_1S_1)$$

II. BASIC TERMS CONTINUED

But there is only one occurrence of «a» in S_1 ; therefore,

$$\text{Amb}(aP_1S_1) \supset \text{Het}(aP_1S_1aP_1S_1)$$

From which follows

$$\neg \text{Amb}(aP_1S_1)$$

That is, an occurrence of an expression sent by a particular act of communication in S_1 by P_1 cannot be asserter-ambiguous in relation to that person in that situation. No heteronymous reference list can be made in relation to that occurrence of «a», and one cannot construct lists of interpretations.

In relation to single acts of communication, there is no difference in preciseness for an asserter or a receiver. Differences of preciseness always refer to a multiplicity of acts of communication or to a multiplicity of persons, or to both.

This theorem is misleading if it is not clearly kept in mind how preciseness is defined and how single acts are contrasted with types of situations.

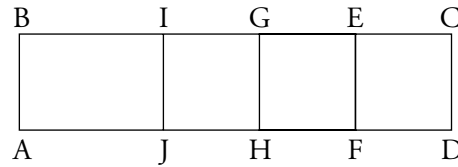
If a person tries to convey an assertion to another person, the choice of formulation may be fully subordinated to the single aim of asserting a formulation that, to the receiver, expresses just the proposition intended by the asserter, or a proposition within the least possible distance in meaning from the intended one. It is in relation to that purpose irrelevant which synonymic alternatives are possible to the asserter on any occasion except the one on which he tries by means of the chosen formulation to convey the assertion to the other person. Similarly, it is irrelevant how the receiver interprets the formulation on occasions other than the one at issue.

That a formulation is more precise than another does not imply that it is more precise within a particular type of situation for particular people.

It may well be that «b» is more precise than «a» in relation to a group of persons P and a type of situation S , but equally precise, or less precise, or incomparable as regards preciseness in relation to a subgroup of persons P or a subtype of situation S . Thus, to know about preciseness relations of great extension is neither necessary nor sufficient for the discovery of preciseness relations of smaller extension. Very little can be inferred about preciseness in relation to single acts.

These assertions do not hold if we look at preciseness relations between a formulation within a greater extension and the same formulation within a smaller extension of persons or situations.

If the preciseness of «a» is compared to the preciseness of «a» in a subclass of situations and persons, it is easily seen that it cannot be less precise in the subclasses than in the general class.



If the rectangle A B C D symbolizes all possible interpretations of «a», the interpretations possible to one person must either be the same or be a subclass, let us say those of the rectangle A B E F. For another person, the line corresponding to E F may go to the left, may go to the right, or may coincide with E F, thus creating relations of the type $\text{Pr}(aP_2S, aP_1S)$, $\text{Pr}(aP_1S, aP_2S)$, or $\text{Idpr}(aP_1S, aP_2S)$.

If S_1 is a type of situation, the possible interpretations of «a» for P_1 in S_1 may be identical with those in the rectangle A B E F, or may fall within a smaller rectangle, let us say A B G H. If S_2 is a singular historical situation, the rectangle of possible interpretations for P_1 may be identical with A B G H, or may be a still smaller one, say, A B I J.

Thus, if a formulation is insufficiently precise within a great group of persons or situations, it may be just as imprecise within smaller groups, but it may also be much more precise.

Sometimes very imprecise formulations in relation to broad fields may turn out to be excellent in relation to narrower ones. We may here think of scientific terminology using vernacular terms in new, well-defined meanings.

«More precise» in relation to *an act of communication* between two persons in a definite type of situation may be defined thus:

- (5) A formulation «b» is more precise than «a» in communication between P and Q in a situation S_1 partly defined by P being asserter and Q receiver, if and only if «b» is more precise than «a» for both P and Q in S_1 .

II. BASIC TERMS CONTINUED

If the connotation of «S» is steadily made richer, the limiting case is reached, namely asserter-receiver preciseness relative to single acts of communication. Using the results of this section, we find that in relation to single acts of communication, all synonymic alternatives are equally precise, even in the case of asserter-receiver preciseness.

II.10. The Limited Importance of Single Acts of Communication to a Science and Technique of Interpretation

The foregoing section may have conveyed to some readers the impression that the concepts of relations of preciseness are unfruitful concepts: we have always to do with single acts of communication, and in relation to them the concepts of preciseness are useless. A science and technique with the aim of describing and possibly eliminating misinterpretation might be considered unfruitful if not adapted to concrete, single acts of communication.

Against such views it must be emphasized that to make predictions about how to communicate with the best results, it is necessary to study *types* of situations, of habits of speech, of dispositions of groups, and so forth. Much knowledge from which predictions are made is in the form of more or less generalized sentences. Descriptions of single acts are mostly either reports of past events or predictions based on inferences from general descriptions. Our interest may be concentrated on single acts of communication, but the argumentation used to justify the choice of definite formulations on definite occasions is based on knowledge about kinds of formulations in kinds of situations. We use in such cases, as one of our premises, the assumption that the single act of communication will be released in a *kind* of situation and by a *kind* of person we know something about. If there is a relatively well confirmed hypothesis that «a» is more precise than «b» in that *kind* of situation, we may decide to use «a» in the single, always unique act of communication that will be released at a definite moment at a definite place. There is no knowledge available about *that* single act as contrasted to kinds (types, classes) of acts.

Even, however, if we succeed in adapting our formulations to a definite act of communication as contrasted to relatively broad classes of communications, this may not be of any help. Lack of misinterpretation at the time of the act of communication does not guarantee against misinterpretation at

II.11. Schematic View of Requirements of Communication to Many People

later moments. The conveyed information is normally supposed to be used a great number of times in a more or less distant future. If a person succeeds admirably at 10 A.M. in conveying to his son how to get to the bank, this does not rule out possible misunderstanding at 10:15 when the son has to recall the words of the father and make up his mind whether his description implied a left or a right turn at a particular corner. He will have to reconstruct the situation at 10 o'clock in his memory, but this does not mean that he repeats it. The singular situation at 10 A.M. may be *per definitionem* unrepeatable in its exact features. The words and gestures admirably fitted to the situation indoors at 10 o'clock may be confusing outdoors at 10:15. The purpose of a communication mostly presupposes that the formulations used are well adapted to future situations in which the receiver memorizes them or reads them anew. They must serve well in acts of self-stimulation under changing conditions. This purpose is of great importance in constructing scientific languages. Such languages presuppose that processes of self-stimulation take nearly identical courses in spite of great variations in situations.

In general, we may say that the success of a single act of communication between two persons at a definite moment is of relatively small importance compared to the importance of chains of communications in which the used formulations play a role. It is of importance, for understandable psychological and sociological reasons, that formulations are used that can be repeated in a variety of situations without marked changes in interpretation. We are, thus, forced back to the problem of finding formulations that are more precise than others within relatively broad types of situations.

II.11. Schematic View of Requirements of Communication to Many People

Let us suppose that a person P wishes to communicate as adequately as possible something he himself usually expresses by T. He wishes to communicate with n persons Q_1, \dots, Q_n , $n > 1$, each of whom may have slightly different training and social background from the others.

If T has the astonishing property of not being slightly or grossly ambiguous within this group of persons, and if P knows this, he may limit himself to utter T to them, and the communication is a complete semantical success.

II. BASIC TERMS CONTINUED

If the persons are expected to interpret T in different ways and too different for the purpose at hand, P may first look for a single sentence U that is interpreted in the same way by all. It will have to satisfy the following requirement:

$$\text{Syn}(\text{TPS}; UQ_1S) \& \text{Syn}(\text{TPS}; UQ_2S) \& \dots \& \text{Syn}(\text{TPS}; UQ_nS)$$

Or, in short

$$(i). \text{Syn}(\text{TPS}, UQ_iS)$$

If n is big, there is little chance that P will be able to find any U that satisfies the requirement of unambiguity. If he does not find any, he may study the usage of each person and find out how to express what he intends by T to each person separately, or in groups. This done, he may have to utter n different sentences, each addressed to one person:

$$\begin{array}{ll} T_1 \text{ to } Q_1: & \text{If } \text{Syn}(\text{TPS}; T_1Q_1S). \\ T_2 \text{ to } Q_2: & \text{If } \text{Syn}(\text{TPS}; T_2Q_2S). \\ \text{---} \text{ ---} \text{ ---} & \\ T_n \text{ to } Q_n: & \text{If } \text{Syn}(\text{TPS}; T_nQ_nS). \end{array}$$

The requirement fulfilled by the individual T_i does not imply that T_i is more precise than T for any person in any situation. T_i may be synonymous with very different sentences for different persons.

When we carry out works of popularization, it is of interest to study what kinds of considerations determine how far we consciously use formulations apt to be misunderstood in various ways, and what kinds of reasons we have for suspecting that some misunderstandings have fewer undesired consequences than others.

II.12. Relation Between Knowledge of Context and Preciseness

It seems to be generally accepted that a formulation should not be isolated from its context when interpreted and that the more we know about the context, the less likely it is that we hit on incorrect interpretations. It is

often stated that the so-called «exact» («real», «correct», «accurate») meaning can be gathered only by study of «the context as a whole». An objection often made to the method of interpreting a text by successive interpretation of its sentences is that the text must be taken as a whole, not analyzed into parts. Interpretation should, according to some people, proceed from a general view of the whole toward interpretation of each unit, not vice versa.

These are rather vague hypotheses. What can be maintained in a serious discussion of the matter, and how can it be formulated? Authors often complain that their critics interpret formulations «isolated» from the contexts. However, there seems to be much misunderstanding because some people regard things as belonging to the context, while others do not. On the whole, there is a tendency to look on greater parts of texts as the context of one's own formulations, compared to the context relevant in case of formulations produced by others.

Sentence (1) on page 62 is a member of a sequence of sentences making up a page of a book, and of a sequence making up section 12 of chapter 1. Chapter 1 may conveniently be regarded as the proper context to investigate when writing theses about the work of the author. The body of valid laws of a community is sometimes mentioned as the proper context for the interpretation of laws. On the other hand, sentences are sometimes said not to belong to the context that occurs within a few sentences of the one at issue.

So far, we have mentioned context in the form of sentences. Often, one also refers to other things as context, for instance, the purpose of a communication, the place where it is carried out, the expected audience, the sex, age, education of its author, and so forth. Anything may be mentioned that conceivably could have an effect on the interpretation of a sentence. Thus conceived, it would easily be an analytical proposition that the more one presupposed known about the context, the more precise would be the interpretation chosen.

It would be highly arbitrary to fix a limit between what is part of the verbal context of a sentence and what is outside the context. We shall here deal with sentences and contexts in general and need only the following definition.

Let S_1 and S_2 be two groups of sentences. S_2 includes S_1 and, in addition, at least one sentence not belonging to S_1 .

II. BASIC TERMS CONTINUED

(1) If a sentence is interpreted by a receiver on the basis of the group of sentences S_1 , it is said to be interpreted on the basis of a *narrower verbal context* than if the group S_2 is taken into consideration.

The age of the author of a sentence may be taken into account by making a sentence designating the age and making it a member of the group of sentences more or less arbitrarily selected as context.

Theorem:

(2) The broader the context taken into consideration by a group of receivers of a sentence, the more receiver-precise is the sentence within the group.

This theorem is not to be interpreted as saying that any broadening of context will favorably affect the level of preciseness, but that a broadening either will affect it favorably, or will not affect it at all.

It is easy to see that, even thus interpreted, the theorem will not hold in every case. Some formulations may be highly misleading, and to be ignorant of such formulations should therefore be a help rather than a hindrance. Sometimes we get more and more confused during the reading of a book.

Theorem (2) is a very general, vague, and trivial hypothesis, which, however, is useful as a starting point for important parts of the theory of interpretation.

If the consideration of a group of sentences S_1 will have more influence on the interpretation than the consideration of another group S_2 , S_1 will be more important to consider. In general, the more influence it has and the smaller it is, the more reason there is to take it into account.

II.13. Interpretational Vibrations Caused by Broadening the Context

We cannot get a total picture without reading a document sentence by sentence, interpreting small units as we read. It is, therefore, necessary to proceed from smaller units to greater, and then back again to smaller. This movement has sometimes been called «the hermeneutical circle».

The following schematic description aims to give a more adequate picture of the possible effects of successive broadening of context by reading.

It should help us realize how extremely complex are the possibilities of mutual influence of parts.

Let «a» be a sentence isolated from any direct auditory or visual verbal context. By Int(a), we symbolize in this section an interpretation of the sentence «a» put forward by a receiver of «a» as an attempt to express as precisely as possible (to him, the receiver) what he thinks the author of «a» has intended to convey by «a». By «b», we symbolize the first sentence of a verbal context now connected with «a». By Int(b), we symbolize an interpretation of «b», put forward by the receiver of «a» when he gets access to «b». By an expression of the kind Int(x,S:y), where «x» and «y» are expressions containing the symbols «b» and «a» or certain others, we symbolize an interpretation of «x» on the basis of «y», for example, with «y» as available context. Thus, Int(a,S:b) is read: the interpretation of «a» based on «b» as the context of «a».

By means of these symbols it is possible to give condensed formulas for the sources of shifts in interpretation when contexts are broadened. Other possible influences are neglected for the sake of simplicity. The formulas will, I hope, give a clear picture of the possible interactions between «total view» and «isolated interpretation of small units».

To the left are the symbols of interpretations and contexts available when the reader (receiver) proceeds as indicated to the right.

«a»	Reader perceives the formulation «a» and
Int(a)	interprets it without looking for a context. He then turns on a formulation «b»
	making up the immediate verbal context
Int(b,S:a)	of «a» and interprets it, but is hereby possibly influenced by «a». After the interpretation of the immediate context of «a», this formulation is no longer
Int(a,S:(b,S:a))	isolated, and reinterpretation is needed. But his interpretation of «b» was possibly influenced by his original interpretation of «a».
Int(b,S:(a,S:(b,S:a)))	Possibly the new interpretation of «a» will influence his interpretation of «b», and he gets a modified interpretation of that formulation. This new interpretation of «b» may possibly lead to reinterpretation of «a», and so on.

Let us suppose that oscillations between «a» and «b» following upon those illustrated do not result in any change of interpretation of «a» and «b». We may then stop at the last interpretations of the diagram.

II. BASIC TERMS CONTINUED

As a next step, we now introduce a new sentence, «c», as the immediate verbal context of «b». The interpretation of it will be influenced by the already-interpreted sentences «a» and «b» that make up its context:

$$\text{Int}(c, S: [(b, S: (a, S: (b, S: a))) \& (a, S: (b, S: a))])$$

Let us, in the following, use A as an abbreviation for the expression in square brackets.

Now, however, «a» and «b» are viewed in the light of the new context «c», interpreted as symbolized above. Possibly this modifies the interpretation of them, and we get the two new interpretations:

$$\text{Int}(a, S: [c, S: A])$$

$$\text{Int}(b, S: [c, S: A])$$

The new interpretation of «a» may possibly influence that of «b», and the new interpretation of «b» may possibly influence «a». Let us instead look at the possibility that the new interpretations of «a» and «b» will influence the interpretation of «c». This sentence was originally interpreted on another basis than the latest interpretations of «a» and «b» and we may possibly have to work with a new interpretation of «c»:

$$\text{Int}(c, S: [(a, S: [c, S: A]) \& (b, S: [c, S: A])])$$

The functional interdependencies with increasing number of sentences increase very fast, so that the schematical picture of the relationships soon becomes practically impossible to handle. A new sentence may unsettle any one of the previous interpretations. In practice, there are, on the other hand, slight chances that a single addition to a context gives rise to many and important changes.

If a treatise is built up by an argumentation consisting of n sentences, which are read successively, we eventually arrive at an interpretation of its first sentence in the light of the n–1 following sentences as context. If this «total view» context changes our previous interpretation of the first sentence, then it is necessary to take up the «total view» context for renewed interpretation, since it has been subjected to an outdated interpretation of

the first sentence. Thus, one will have to revise the «total view» on the basis of less comprehensive interpretations, namely the interpretation of the first sentence.

Discussions about context and interpretation seem to some degree thwarted by the implicit assumption that a sentence may be «viewed» in a broad verbal context, without this context being laboriously interpreted. Each interpretation is a function of other interpretations, and only indirectly a function of «context» in the sense of surrounding formulations in contrast to surrounding assertions.

The preceding illustrations are based on the simplifying assumption that the receiver (for example, a reader of a book) chooses one and only one interpretation when he is confronted with a sentence. He is supposed consciously or nonconsciously to single out one interpretation as the most plausible on the basis of the available material. If, however, the receiver's task is to read a textbook of philosophy, a sermon, or a rhetorical masterpiece, he may find the sentences ambiguous (even when the available context is taken into account), and he will suspend judgment as regards definite interpretation until more context is available. He may decide to work with several possibilities of interpretation, without showing any preference. Let us see how we can illustrate this more realistic account of the interpretational efforts of the reader. Let $\text{Int}_1(a)$, $\text{Int}_2(a)$, . . . , $\text{Int}_n(a)$ be the n interpretations of « a » that the reader cannot distinguish as regards degree of plausibility, all being approximately equally plausible in view of the lack of contextual information. When he proceeds to the context formulation « b », it is interpreted in the light of « a », which gives the following possibilities:

$$\begin{aligned} &\text{Int}_1(b, S: \text{Int}_1(a)) \text{Int}_1(b, S: \text{Int}_2(a)) \dots \text{Int}_1(b, S: \text{Int}_n(a)) \\ &\text{Int}_2(b, S: \text{Int}_1(a)) \text{Int}_2(b, S: \text{Int}_2(a)) \dots \text{Int}_2(b, S: \text{Int}_n(a)) \end{aligned}$$

Suspension of interpretation, even if relating to only two sentences, may create a vast manifold of possibilities. In practice, these are not verbalized, but some of them must be reckoned with as causal factors regulating interpretation of «difficult» texts by analysts. In the case of interpretation of imperfectly known languages, linguistic research sometimes leads to explicit formulation of vast numbers of possibilities. Normally, however, we

II. BASIC TERMS CONTINUED

rather seem to have a nonverbalized disposition for varieties of possibilities, which is changed without our noticing it.

Concluding, we should like to emphasize that the above schemes are not psychological descriptions of how texts are interpreted, but a survey of how interpretations of large units of texts depend on interpretations of smaller units, and vice versa.

The often-heard complaint that interpretations must proceed from «views of totality», from «comprehensive understanding, not from atomic disintegration of texts» ought not to be used as a justification for a reversion to nonconscious interpretation, unenlightened by any effort to find out how and why we arrive at our ultimate choice of interpretation of any unit of text. On the other hand, there is a danger that very painstaking analysis of possibilities makes us unable to complete the reading of texts if they are not written in unusually precise language. The number of possibilities of interpretation may be practically unlimited in case of texts of comparatively low levels of preciseness.

Against the unwarranted principle of interpretation from the «totality», one may place the «*principle of the hermeneutical circle*»: from interpretation of isolated expressions, one proceeds to more and more comprehensive wholes, then back again to each isolated expression. From isolated expressions, the interpreter again attempts to survey wholes. The term «hermeneutical circle» is suggested by F. Torm (1938: 158); the principle had possibly been suggested already in 1808 by F. Ast.

II.14. Synonymity and Preciseness of Imperatives

We have so far limited our analyses to declarative sentences (formulations) and designations.

This limitation has been only temporary. We shall briefly indicate how to extend the theories to other types of sentences. It should be borne in mind, however, that the limitation imposed so far has not excluded from consideration parts of sentences other than formulations. Designations included in imperatives, in questions, and in any other type of sign-complexes that normally do not express assertions are included in the scope of definitions and theorems on «designations» as this word is used in chapter 1. If, for example, a question is misunderstood, it is feasible and it is a

normal procedure to try to make one or more designations included in the question more precise or more specified. There are, in the foregoing sections, introduced tools relevant to the theory of norms and of questions.

Suppose «a!» is a sentence that does not for P in S express any assertion but rather a command or request or decision (an «imperative») made by the person pronouncing «a!», or interpreted to be a command or request by some other person or personalized institution.

- (1) Two sentences, «a!» and «b!», are in this work said to express the same imperative for a person P in a situation S if, and only if, every expression T—which, according to P in S designates a satisfaction of «a!»—also designates a satisfaction of «b!», and vice versa; and every expression U—which, to P in S designates a nonsatisfaction of «a!»—also designates a nonsatisfaction of «b!», and vice versa.

Two sentences satisfying (1) we call «synonymous imperative sentences for P in S».

The formulation «An expression T designates according to P in S a state of satisfaction of the imperative «a!»» admits of two directions of precization worthy of being mentioned in this connection. One direction may be suggested by making the formulation synonymous with «P considers the state characterized by T to be realized *as a result* of the announcement «a!»». The other direction may be suggested by making the formulation synonymous with «T designates according to P in S a state of affairs confirming the assertion that «a!» has been followed».

The difference between the two directions is between the satisfaction of an imperative and the state of affairs and the announcement of the imperative and the state of affairs, T. If the satisfaction clause is precized in the second direction, there may be no causal link whatsoever.

If, to take an example, the imperative is the one I herewith announce: «Let there be no pirates in the Arctic Sea!», the sentence «There are no pirates in the Arctic Sea» represents an expression T of the kind demanded by the second direction of precization. It is, by me, considered to confirm the hypothesis that my imperative has already been followed. There has not been any causal chain between my imperative and the condition in the Arctic, however. Thus, the condition cannot be said to be a result of the imperative.

II. BASIC TERMS CONTINUED

Both directions of precization lead to concepts of some fruitfulness. There is no reason at the present stage of the introduction of conceptual structure to eliminate any of them by a decision in favor of any other.

To illustrate definitional formulation (1), we may select the following «constants»:

«a!»	in this work, the word «interpretation» shall be used as indicated in chapter 1
«b!»	in the work in which this sentence occurs, the word «interpretation» shall be used as indicated in chapter 1 of that work
P	A. N.
S	this page

I think there is no designation that weakens the requirement of (1). As an example of a pair of confirmatory formulations, we select the following:

- T₁: In this work, the word «interpretation» is used as indicated in chapter 1.
- T₂: In the work in which this sentence occurs, the word «interpretation» is not used as indicated in chapter 1 of that work.

The formulations T₁ and T₂ have an important relation to any expression that might satisfy (1). If T_i is a designation satisfying (1) provided «a!», «b!», P, and S are exemplified as in the illustration, in that case T_i has a connotation equal to or richer than T₂. This I judge from knowledge of my own verbal habits. We shall call an expression fulfilling the requirement of having a connotation not less rich than any other satisfying (1) *an expression of conditions of complete realization* of the imperative at hand.

Considerations of fruitfulness and economy of thought have led us to adopt concepts of interpretation and preciseness of imperatives that are closely analogous to those used in relation to formulations. Thus, by analogy with (1) on page 57, we write:

- (2) «The imperative «a!» is a synonymic alternative to the imperative «b!»» shall in this work mean the same as ««a!» and «b!» may be synonymous».

On the basis of this terminology, the other definitions and theorems of chapter 1 about interpretation and so forth are made, *mutatis mutandis*, applicable to imperatives.

By analogy with (1) on page 62, we get:

- (3) If, and only if, every synonymic alternative to the imperative «a!» is also a synonymic alternative to the imperative «b!», and there is at least one synonymic alternative to «b!» that is not a synonymic alternative to «a!», and «a!» admits of at least one synonymic alternative, then «a!» will be said to be *more precise* than «b!».

By means of this terminology, the sentences about preciseness of formulations in chapters 1 and 2 may, *mutatis mutandis*, be used about preciseness of imperatives.

II.15. Synonymity and Preciseness of Questions

We shall try to «reduce» the analysis of questions to the analysis of assertions in much the same way that we have just done with regard to imperatives.

- (1) Two sentences «a?» and «b?» are in this work said to be synonymous or to express the same question for a person P in a situation S if, and only if, every formulation T that expresses for P in S a positive answer to «a?» also for P in S expresses a positive answer to «b?», and vice versa; and every formulation U that expresses for P in S a negative answer to «a?» also for P in S expresses a negative answer to «b?», and vice versa.

By analogy with (1) on page 57, we get:

- (2) «The question-sentence «a?» is a synonymic alternative to the question-sentence «b?»» shall in this work mean the same as ««a?» and «b?» may be synonymous».
- (3) If, and only if, every synonymic alternative to the question «a?» is also a synonymic alternative to the question «b?», and there is at least one synonymic alternative to «b?» that is not a synonymic alternative to «a?», and «a?» admits of at least one synonymic alternative, then «a?» will be said to be *more precise* than «b?».

II. BASIC TERMS CONTINUED

(4) If, and only if, every formulation expressing a positive (or negative) answer to the question «a?» also expresses a positive (or negative) answer to the question «b?», and there is at least one positive (or negative) answer to «b?» that does not express a positive (or negative) answer to «a?», and «a?» admits of at least one positive (or negative) answer, then «a?» will be said to be *more precise* than «b?».

By means of the concepts of sections 14 and 15 we can deal with problems of interpretation and preciseness of imperatives and questions in a preliminary way adapted to our main purposes, which are concerned with concepts and assertions, rather than norms and questions.

III

Misinterpretation and Pseudoagreement

III.1. To Assent and to Agree: Verbal Agreement

Let us suppose that a person P tries to communicate to another person Q a proposition and the standpoint that this proposition is tenable. Let us further suppose that P tries to express it by a sentence T_0 , and that Q reacts positively in such a way as to indicate «agreement» with P. This *act of assenting* may be performed by means of words such as «yes», «sure», «certainly», «agreed», and «that is so», or by nodding or other socially accepted gestures of assenting. For the sake of simplicity, we shall in this chapter assume that Q responds verbally and in such a way that we may with great certainty infer that Q regards as tenable that proposition that he believes P tries to convey to him. In symbols:

(1) $\text{Ass}(PT_0Q)$

(2) $\text{Ass}(QT_0P)$

The symbol «Ass» is used to symbolize assertion.

The whole symbol « $\text{Ass}(PT_0Q)$ » reads, P asserts T_0 with Q as intended receiver(s).

The whole sign-complex (1) and (2) is a description of an attempt at communication. This and later symbolizations in this chapter are all symbolizations of what an analyst observes or infers.

Whenever an interaction between P and Q occurs in such a way as to make the above symbolization adequate, we shall say that at step (2) and in relation to the sequence of steps (1), (2), there is *verbal agreement* between P and Q. The observational basis is in such cases usually an act of assenting. If

III. MISINTERPRETATION AND PSEUDOAGREEMENT

neither P nor Q comments on the other's use of T_0 , we shall infer that at step (2) P and Q believe that they interpret T_0 in the same way, or that they, if asked, and if they understood the question, would be willing to assert that they assume they interpret T_0 in the same way. («Same» is here open to different, more or less exacting interpretations, which generate various more or less strong assumptions on the part of the analyst.) Further, we, as analysts, infer that Q believes to be tenable the proposition that he thinks P tries to express by T_0 . Further, we infer that P believes that Q, by his answer, has indicated that he accepts the proposition that P intended to convey.

Sometimes the inferences may be checked carefully and found well supported, but this usually requires extensive investigations.

We talk about «steps» in the sense of successive verbal utterances in a sequence making up a discussion, deliberation, or some other kind of verbal communication between different persons, or, as a limiting case, within the same person at different moments. The successive steps may be described in terms of situations in the terminology of the preceding chapters.

If Q responds negatively in such a way as to indicate that he does not consider that the proposition he believes P is trying to convey to him is tenable, we shall say that there is *verbal disagreement* between P and Q at stage (2) and in relation to the sequence (3), (4). We symbolize this as follows:

- (3) (1) Ass(PT_0Q)
 (4) (2a) Ass($Q-T_0P$)

or

- (4) (2b) \neg (Ass(QT_0P))

The alternative (2b) indicates that Q limits himself to indicating that he is not willing to assert T_0 . Maybe he considers T_0 to be devoid of meaning or too ambiguous to be accepted or rejected, or he may consider the negation of T_0 to be tenable. If, and only if, this last possibility is indicated by Q's answer do we write (2a). In the following we shall, for the sake of simplicity, limit ourselves to discussions in which persons assert either T_0 or its negation.

III.2. Pseudoagreement and Pseudodisagreement

Let us continue the analysis of discussions starting with the two steps:

(1) Ass(PT_0Q)

(2) Ass(QT_0P)

If T_0 for P is interpersonally synonymous with T_0 for Q at step (2), then we shall say that at step (2) there is *expressed interpersonal and propositional agreement* between P and Q in relation to the sequence (1), (2), and as regards the proposition expressed by T_0 by P. The concept is formed by precization of expressions such as «real agreement» and «agreement not owing to confusion of terminology».

If T_0 for P is interpersonally synonymous with T_0 for Q at step (2a) of the sequence (3), (4), section 1, we shall say that at step (2a) there is *expressed interpersonal and propositional disagreement* between P and Q in relation to the sequence (3), (4) and as regards the proposition expressed by T_0 by P.

If T_0 as interpreted by P is not interpersonally synonymous with T_0 for Q at step (2), and T_0 expresses a proposition for Q that is different from the one expressed by T_0 for P, then we shall say that there is at step (2) *pseudoexpressed agreement* between P and Q as regards the proposition expressed by T_0 for P. By that technical term we indicate that there is verbal agreement, a kind of situation normally taken to indicate propositional agreement, but that the situation is misleading because P and Q are talking about different things. It *seems* as if they explicitly are accepting the same standpoint—and they believe they have—whereas they are not accepting the same as far as can be judged by what they have tried to communicate to each other.

If we can, on the basis of sources of knowledge other than the symbolized communication, say that Q believes that the proposition expressed by T_0 for P is tenable, then there is propositional agreement at step (2), but, nonetheless, a pseudoexpressed agreement. If Q believes that proposition to be untenable, there is at stage (2) pseudoexpressed agreement connected with propositional disagreement. We shall in that case say that there is *pseudoagreement* at step (2).

If cases of verbal disagreement are similarly treated, the following cases shall have to be distinguished. They are all defined in relation to defi-

III. MISINTERPRETATION AND PSEUDOAGREEMENT

nite types of situations, those characterized by the succession (1), (2) of steps in a communication between P and Q.

Verbal Agreement at Step (2)

- A1 Verbal agreement and interpersonal synonymy give:
«expressed (communicated, conveyed) propositional agreement».
- A2 Verbal agreement and lack of interpersonal synonymy and propositional agreement give:
- A2.1 «pseudoexpressed propositional agreement».

Verbal agreement and lack of interpersonal synonymy and propositional disagreement give:

- A2.2 «pseudoagreement».

Verbal Disagreement at Step (2)

- B1 Verbal disagreement and interpersonal synonymy give:
«expressed (conveyed, communicated) propositional disagreement».
- B2 Verbal disagreement and lack of interpersonal synonymy and propositional disagreement give:
- B2.1 «pseudoexpressed propositional disagreement».

Verbal disagreement and lack of interpersonal synonymy and propositional agreement give:

- B2.2 «pseudodisagreement».

The distinctions introduced are more easily surveyed if formulated in symbols. It must be borne in mind, however, that some of the members of the conjunctions below refer to step (1), and some to step (2) or later steps. Thus, we may write:

- | | | | |
|------|----------------|------------------|-----------------------------|
| A1 | Ass(PT_0Q) | & Ass(QT_0P) | & Syn(T_0PS , T_0QS) |
| A2.1 | Ass(PT_0Q) | & Ass(QT_0P) | & -Syn(T_0PS , T_0QS) |

III.2. Pseudoagreement and Pseudodisagreement

	& Ass(QT ₁ P)	& Syn(T ₁ PS, T ₁ QS)	& Syn(T ₀ T ₁ PS)
A2.2	Ass(PT ₀ Q)	& Ass(QT ₀ P)	& -Syn(T ₀ PS, T ₀ QS)
	& Ass(Q-T ₁ P)	& Syn(T ₁ PS, T ₁ QS)	& Syn(T ₀ T ₁ PS)
B1	Ass(PT ₀ Q)	& Ass(Q-T ₀ P)	& Syn(T ₀ PS, T ₀ QS)
B2.1	Ass(PT ₀ Q)	& Ass(Q-T ₀ P)	& -Syn(T ₀ PS, T ₀ QS)
	& Ass(Q-T ₁ P)	& Syn(T ₁ PS, T ₁ QS)	& Syn(T ₀ T ₁ PS)
B2.2	Ass(PT ₀ Q)	& Ass(Q-T ₀ P)	& -Syn(T ₀ PS, T ₀ QS)
	& Ass(QT ₁ P)	& Syn(T ₁ PS, T ₁ QS)	& Syn(T ₀ T ₁ PS)

In the succession of steps (1), (2), P opens the discussion and Q acts as a receiver. Talking about propositional agreement, we always in such cases refer to propositions that the person who opens the discussion tries to express.

If both P and Q are receivers in a situation S, we may still as analysts talk about propositional «agreement» or «disagreement» between P and Q in S, but it is to be remembered that in this case there is no attempt to communicate between P and Q. The «agreement», therefore, does not extend beyond simultaneous implicit acceptance of a proposition, or, more accurately, a state of affairs characterized by two or more persons having the opinion that a certain proposition is tenable. In this chapter we are mainly concerned with attempts at communication, and our definitions and theorems are mainly concerned with types of steps in discussions.

It may happen that both P and Q read or hear T₀ without there being any person as sender, and P asks Q whether Q agrees to T₀, and P then indicates his own attitude. Under these circumstances, the cases A1, A2.1, and A2.2 shall refer to agreement about two propositions, the one P intends and the one Q intends.

Short illustrations of the distinctions introduced:

- (3) P: Nothing exists.
- (4) Q: You are wrong. Your foolish assertion exists.
- (5) P: I meant, nothing exists in the sense of Parmenides.
- (6) Q: I agree, but why did you not say that at once instead of saying something quasi-profound?

III. MISINTERPRETATION AND PSEUDOAGREEMENT

At step (4) we have a case of verbal disagreement. At step (5) P introduces a « T_1 », presumably chosen among precisizations of T_0 for P and with the hope that T_1 for Q means the same as it does for P.

At step (6) we may say that in relation to the succession (3)–(6), there was at step (4) a misinterpretation on the part of Q. There was at that stage of the discussion a pseudodisagreement. If the aim of P, to make more precise what he intended to express at step (3), is presumed to be successful at step (6), there is at that stage propositional agreement. We may, however, say that *there are symptoms* of propositional agreement at (6) and pseudodisagreement at (4).

- (7) P: Some assertions are absolutely true.
- (8) Q: No. We have not sufficient confirmation of any assertion to make its absolute truth plausible.
- (9) P: I meant, there are some assertions that nobody can seriously doubt.
- (10) Q: Oh, is that what you mean? I think that is an implausible psychological hypothesis.

We may, in relation to the succession (7)–(10), say that at step (8) there was verbal disagreement and at step (10) symptoms of pseudoexpressed propositional disagreement—that is, symptoms of case B2.1 of our tabulations on page 141.

III.3. Communications That Show Symptoms of Pseudoagreement and Other Undesired Properties

In the symbolized types of communication

- (1a) $\text{Ass}(PT_0Q)$ (2a) $\text{Ass}(QT_0P)$

and

- (1b) $\text{Ass}(PT_0Q)$ (2b) $\text{Ass}(Q-T_0P)$

there is nothing explicitly mentioned that could indicate that the attempt to convey a proposition was a failure. The analyst who maintains that it was

III.3. *Communications That Show Symptoms of Pseudoagreement*

a failure must have some material other than the utterances symbolized to prove his thesis.

Let us suppose that P continues the communication by one of the following types of sentences:

(3a) P: By T_0 I meant T_1 .

or

(3b) P: By T_0 I meant T_1 , not T_2 .

or, in previously introduced symbols:¹

(3as) Ass {P, Syn ($T_0T_1P(1)$), Q}

(3bs) Ass {P, Syn($T_0T_1P(1)$) & -Syn ($T_0T_2P(1)$), Q}

By means of (3b), P may indicate that a certain interpretation T_2 , which he thinks Q possibly has used, is not in harmony with his intention. Another interpretation, T_1 , which we safely may assume is heteronymous with T_2 for P, is offered as expressing his intention.

Offering T_1 instead of T_2 as a suitable formulation, P may have had the opinion that Q possibly interprets T_0 to mean the same as P means by T_2 , or perhaps the same as P means by T_1 . By substituting T_1 for T_0 , he tries to eliminate the possibility that Q interprets T_0 to mean the same as P means by T_2 .

Let us assume that Q answers P's assertion (3b) with one of the following sentences:

(4a) Q: That is how I interpreted your statement.

or

(4b) Q: I thought you meant T_2 by T_0 , not T_1 .

or

(4c) Q: To me T_0 , T_1 , and T_2 mean the same.

III. MISINTERPRETATION AND PSEUDOAGREEMENT

or

(4d) Q: To me, T_1 and T_2 mean the same, but something different from T_0 .

Or, in symbols:

(4as) Ass [Q, Syn($T_0P(i)$, $T_1Q(i)$), P]

(4bs) Ass [Q, Syn($T_0P(i)$, $T_2Q(i)$), P]

(4cs) Ass [Q, Syn($T_0T_1Q(i)$, (4)) & Syn($T_0T_2Q(i)$, (4))
& Syn($T_1T_2Q(i)$, (4)), P]

(4ds) Ass [Q, -Syn($T_0T_1Q(i)$, (4)) & -Syn($T_0T_2Q(i)$, (4))
& Syn($T_1T_2Q(i)$, (4)), P]

In the first case, (4a), there is a confirmation that Q interprets P as he himself does, a symptom of interpersonal agreement or disagreement and, hence, of «communication of propositions», another name for «expressed propositional agreement or disagreement». The confirmation cannot be considered to be very strong, however. On the other hand, we get relatively strong confirmation of two intrapersonal synonymities, Syn(T_0T_1PS) and Syn(T_0T_1QS). We have some reason to believe that T_1 is for P and Q in S less ambiguous than T_0 . It is this pair of intrapersonal synonymities that makes us look on the answer (4a) as a slight confirmation that there is an interpersonal synonymity Syn(T_0PS , T_0QS). Our assumption is that because T_1 is offered instead of T_0 , this means that T_1 was selected on the basis of a more sustained effort to arrive at effective communication. Therefore, there should be a better chance that we have Syn(T_1PS , T_1QS) than that we have Syn(T_0PS , T_0QS). Moreover, since Q says that he interpreted T_0 to mean the same as T_1 , we may transfer our confidence from T_1 to T_0 .

The use of (4a) as confirmation of interpersonal synonymity and, hence, of propositional agreement is almost universal in spite of obvious shortcomings.

In most discussions, even within the exact sciences, the participants use weak symptoms of propositional agreement, and we do not blame them. *What we here try to do is only to make more explicit the kinds of assumptions habitually made.* A clarification of this kind tends to increase the capacity to

III.3. *Communications That Show Symptoms of Pseudoagreement*

detect and eliminate misunderstandings that result from overestimating the certainty of these assumptions.

In all the other listed cases of step (4), there is material suggesting misinterpretation and lack of confirmation of the effectiveness of the attempted communication.

In case (4b) we may safely assume that T_2 and T_1 for Q are not synonymous. There has been interpersonal *misinterpretation* at step (2), provided T_2 does not mean to Q the same as T_1 to P, for example, if it was not the case that $\text{Syn}(T_1\text{PS}, T_2\text{QS})$. There is, however, nothing that suggests such an interpersonal synonymy. If Q agreed with P as to T_0 , there has been at step (2) either pseudoexpressed propositional agreement A2.1 or pseudoagreement (verbal agreement and propositional disagreement) A2.2. If, after step (4d), as a fifth step, we observe

(5a) Ass (QT_1P)

this is a strong symptom that there was at step (2a) pseudoexpressed propositional agreement about «a». From (2a) and (4b) we may infer that Q accepts the proposition expressed by T_2 for Q. P may or may not accept that proposition. If we observe

(5b) Ass($Q-T_1P$)

this is a strong symptom that there was at step (2a) pseudoagreement about T_0 .

If Q disagreed with P as regards T_0 , there was at step (2b) pseudodisagreement if (5a) holds good, pseudoexpressed propositional disagreement if (5b) is observed. It is of importance to note that there must be a fifth step to get material concerning pseudoagreement, etc. Steps (3) and (4) give us material to judge relations of synonymy and lack of synonymy, not to judge standpoints toward the propositions at issue.

Case (4c), in which Q maintains that T_0 , T_1 , and T_2 mean the same to him, reveals a difference between two systems of intrapersonal synonymies. The difference vitiates the use of step (3) for confirmation of effectiveness of communication. Something similar applies to (4d). T_1 and T_2 are not suitable to be used as «clarifiers». P may try out a new pair of formulations, for example, by saying

III. MISINTERPRETATION AND PSEUDOAGREEMENT

(6a) P: By T_1 I meant T_3 , not T_4 ; by T_2 I meant T_4 , not T_3 .

or simply

(6b) P: By T_0 I meant T_3 , not T_4 .

By these assertions, P brings in a new synonymy relation, presumably on the basis of a hypothesis that the new formulation, T_3 , is more apt than T_1 to be used in the same sense by both P and Q.

In view of the somewhat complicated structure of the possibilities opened up by a fifth and sixth step, we shall summarize the foregoing kinds of steps as follows:

(1) P: T_0

(2a) Q: T_0

(2b) Q: $\neg T_0$

(3) P: $\text{Syn}(T_0T_1) \& \neg \text{Syn}(T_0T_2)$

(4a) Q: $\text{Syn}(T_0T_1) \& \neg \text{Syn}(T_0T_2)$

(4b) & (5a) Q: $\text{Syn}(T_0T_2) \& \neg \text{Syn}(T_0T_1) \& \text{Q: } T_1$

(4b) & (5b) Q: $\text{Syn}(T_0T_2) \& \neg \text{Syn}(T_0T_1) \& \text{Q: } \neg T_1$

If (2a) and (4b) & (5a), there is at step (5a) a symptom of pseudoexpressed propositional agreement at step (2a).

If (2a) and (4b) & (5b), there is at step (5b) a symptom of pseudoagreement at step (2a).

If (2b) and (4b) & (5a), there is at step (5a) a symptom of pseudodisagreement at step (2b).

If (2b) and (4b) & (5b), there is at step (5b) a symptom of pseudoexpressed propositional disagreement at step (2b).

Further efforts of communication may confirm the hypotheses about pseudoagreement, etc.² Let us analyze the following kinds of additional steps. We shall assume that the first three steps were (1), (2a), and (3).

(6a) P: $\text{Syn}(T_1T_3) \& \neg \text{Syn}(T_1T_4) \& \text{Syn}(T_2T_4) \& \neg \text{Syn}(T_2T_3)$

(7a) Q: $\text{Syn}(T_1T_3) \& \neg \text{Syn}(T_1T_4) \& \text{Syn}(T_2T_4) \& \neg \text{Syn}(T_2T_3)$

III.3. *Communications That Show Symptoms of Pseudoagreement*

(7b) & (8a) Q: $\text{Syn}(T_1 T_4) \& \text{-Syn}(T_1 T_3) \& \text{Syn}(T_2 T_3) \& \text{-Syn}(T_2 T_4)$
 .&. Q: T_3
 (7b) & (8b) Q: $\text{Syn}(T_1 T_4) \& \text{-Syn}(T_1 T_3) \& \text{Syn}(T_2 T_3) \& \text{-Syn}(T_2 T_4)$
 .&. Q: $\text{-}T_3$

Steps (6a) and (7a) confirm the hypothesis motivated by (4a) that there was at step (2a) propositional agreement about the proposition expressed by T_0 for P.

The combination of (6a) and (7a) with (4b) and (5a) gives a confirmation of expressed propositional agreement at (5a) when Q asserted T_1 .

The combination of (6a) and (7a) with (4b) and (5b) gives a confirmation of expressed propositional disagreement at step (5b).

The combination of (6a) and (7b) and (8a) with (4a) weakens the status at step (4a) of the hypothesis that there was at step (2a) a propositional agreement as regards T_0 . This hypothesis was strengthened by step (4a), but T_1 and T_2 were by (7b) discovered to be interpreted differently. However, at step (8a) Q accepts T_3 , which to P is synonymous with T_0 . The status of the hypothesis may at step (8a) be regarded as somewhat stronger than at step (2a).

The combination of (6a) and (7b) and (8b) with (4a) weakens considerably the hypothesis at step (4a) that there was propositional agreement at step (2a). The amount of strength gained by step (4a) is lost again by steps (7b) and (8b).

There are, as may be gathered from the above indication, a great number of sequences that are relevant to the hypotheses of propositional agreement, pseudoexpressed propositional agreement, pseudoagreement, etc., at steps (2a), (4a), and so on. There is in theory no limit to the succession of confirmations and disconfirmations. In practice, however, there is a tendency to cut the sequences whenever confirmation is judged strong enough for the purposes at hand, or the differences in meaning between a pair of possible heteronyms (T_{2i-1}, T_{2i}) are judged sufficiently small. Or, the participants adopt methods of judging efficiency of communication other than that of comparing synonyms.

In the foregoing we have not discussed closely why we may take «agreement» about T_1 more seriously than «agreement» about T_0 . We have said

III. MISINTERPRETATION AND PSEUDOAGREEMENT

that the choice of T_1 as a means of communication is probably based on deeper reflection than the choice of T_0 . The capacity of steps (3) and (6) to *clear up misunderstandings* depends to some degree on the properties of T_1 and T_3 compared with that of T_0 . Here the theory of preciseness comes in, especially that of interpersonal preciseness.

III.4. Some Important Types of Sequences of Steps in Discussions

In the preceding section we analyzed some types of steps in a communication between two persons P and Q. P's purpose was to convey to Q that he thinks a certain proposition tenable and to learn whether Q agrees with him on the status of that proposition.

The sequence of steps (1), (2a), (3), (4a), (5a), (6a) may be viewed as the first steps in an unlimited sequence:

- (1) P: T_0
- (2a) Q: T_0
- (3) P: $\text{Syn}(T_0T_1) \ \& \ -\text{Syn}(T_0T_2)$
- (4a) Q: (3)
- (5a) P: $\text{Syn}(T_1T_3) \ \& \ -\text{Syn}(T_1T_4) \ \& \ \text{Syn}(T_2T_4) \ \& \ -\text{Syn}(T_2T_3)$
- (6a) Q: (5a)
- — —
- — —
- (2i+1) P: $\text{Syn}(T_{2i-3}T_{2i-1}) \ \& \ -\text{Syn}(T_{2-3}T_{2i}) \quad i = 2$
 $\ \& \ \text{Syn}(T_{2i-2}T_{2i}) \ \& \ -\text{Syn}(T_{2-2}T_{2i-1})$
- (2i+2) Q: (2i+1)
- — —
- — —

If the successive steps are carried out to eliminate ambiguities, we may predict that the larger the number of steps, the less likely it is that discussions involving T_0 will reveal a difference between the intended meaning of P and that of Q.

There is another type of sequence of equal importance, the one beginning with (1), (2a), (3), (4a), (5b), (6b):

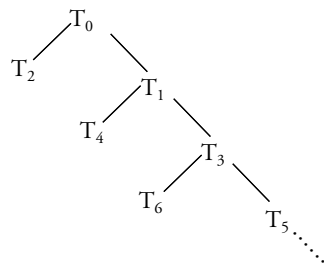
III.4. Some Important Types of Sequences of Steps in Discussions

- (1) P: T_0
- (2a) Q: T_0
- (3) P: $\text{Syn}(T_0T_1) \ \& \ -\text{Syn}(T_0T_2)$
- (4a) Q: (3)
- (5b) P: $\text{Syn}(T_0T_3) \ \& \ -\text{Syn}(T_0T_4)$
- (6b) Q: (5b)

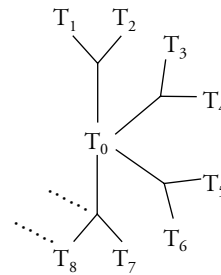
— — —
— — —

Here, the systems of precisizations with T_0 as member are investigated. The differences between the two sequences and their combination may be illustrated thus:

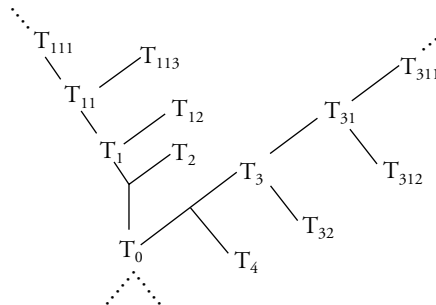
«Chain sequence»



«Radiation sequence»



Combination



III.5. Misinterpretation with Weight Effects

Suppose we observe an attempt at communication that we, by means of plausible auxiliary hypotheses, can subsume under the following form:

- (1) $\text{Ass}(\text{PT}_0\text{Q})$
- (2) $\text{Ass}(\text{QT}_0\text{P})$
- (3) $\text{Ass}[\text{P}, \text{Syn}(\text{T}_0\text{P}_1\text{P}(1)) \& \text{-Syn}(\text{T}_0\text{T}_2\text{P}(1)), \text{Q}] \& \text{Pr}(\text{T}_1\text{T}_0\text{P}(1)) \& \text{Pr}(\text{T}_2\text{T}_0\text{P}(1))$
- (4) $\text{Ass}[\text{Q}, \text{-Syn}(\text{T}_0\text{T}_1\text{Q}(2)) \& \text{Syn}(\text{T}_0\text{T}_2\text{Q}(2)), \text{P}] \& \text{Pr}(\text{T}_1\text{T}_0\text{Q}(2)) \& \text{Pr}(\text{T}_2\text{T}_0\text{Q}(2))$

At step (4) there is strong evidence in favor of the assumption that Q has interpreted P to have meant by T_0 something different from what P intended to convey by T_0 . There is strong evidence of *misinterpretation*. Further attempts at communication may possibly furnish evidence to the contrary, but this is irrelevant to our present *contention*, which relates to the situation at step (4). P and Q may roughly be said to explain to each other what they meant by T_0 . They thereby use two sentences, T_1 and T_2 , that seem to them to permit fewer interpretations than T_0 .

As judged on the basis of the sequence of steps (1)–(4), T_0 *has failed* as a vehicle to communicate assertions between P and Q. If P and Q use T_0 in the future, they may be expected to remember the failure and its clarification. They are apt to base the future use of T_0 on the assumptions

- $\text{Syn}(\text{T}_0\text{T}_1\text{PS}) \& \text{-Syn}(\text{T}_0\text{T}_2\text{PS})$
- $\text{Syn}(\text{T}_0\text{T}_2\text{QS}) \& \text{-Syn}(\text{T}_0\text{T}_1\text{QS})$

This may result in no more failures on the part of T_0 as a vehicle of communication *between P and Q*. The clarification has had an effect of «special prevention», but it is unlikely to have had an effect of «general prevention». If there is no strong evidence to the contrary, we shall have to expect that other persons using T_0 often may misinterpret each other as did P and Q.

Suppose the next steps in the sequence under consideration are:

(5) Ass (P-T₂Q)

(6) Ass (Q-T₁P)

In that case, the misinterpretation is of greater importance to effective communication than in the case of P and Q accepting both T₁ and T₂. We shall speak about evidence at steps (5) and (6) of *misinterpretation with weight effects*. That is, the misinterpretation represents differences in interpretation great enough to cause reversal or significant change in cognitive weight attribution. This means, again, that the misinterpretation causes pseudo-agreement or pseudodisagreement.

It is important to take possible weight effects into consideration when investigating misinterpretation, because whereas we often misinterpret each other to some extent, we do so much [less frequently] with any weight effect. Investigation of misinterpretations without weight effects may have considerable didactic or purely theoretical value but is of slight use for direct application to concrete discussions.

If P and Q have had the experience of T₀ causing misinterpretation with weight effects, there is a heavy presumption in favor of either refraining from using T₀ in discussions with a third person R, or defining it in terms of T₁ and T₂ before entering the discussion with R. If T₀ is dropped, it is natural to use either T₁ or T₂ instead.

There may, of course, be special reasons for P to expect that R in discussion with P interprets T₀ as P does, but if P does not tell R about the misinterpretation between P and Q, the use of T₀ between P and R may, even if it is successful, do much harm, since R is led to use T₀ in discussions with new persons, some of whom may use T₀ as Q does and not as P does.

Just to illustrate the theoretical development in this section, we shall give an example of a discussion that by means of plausible auxiliary hypotheses can be subsumed under the form (1)–(6), pages 150–51. The illustration is taken from an elementary course in interpretation and preciseness.

(1) P: The newspaper is thin today.

(2) Q: Yes, it certainly is.

(3) P: I mean, there is little news in the newspaper today.³

(4) Q: Oh, that is not how I understood you. I thought you meant; The newspaper has few pages today.

III. MISINTERPRETATION AND PSEUDOAGREEMENT

- (5) P: Well, I did not mean to say that. It does not express my opinion either. There are plenty of pages.
- (6) Q: But how can you say there is little news? I think there is plenty of it.

At step (2) there is verbal agreement between P and Q. At step (4) there is strong evidence of misinterpretation on the part of Q. At step (5) the evidence of misinterpretation on the part of Q increases: the sentence that Q used to indicate his interpretation is a sentence that also for P is heteronymous with the original sentence. Further, at step (5) there is evidence that P does not have the opinion that Q intended to affirm at step (2). At step (2) there was misinterpretation with weight effect. At step (6) there is evidence that Q does not entertain the opinion that P intended to assert at step (1). The misinterpretation has had a double weight effect.

III.6. Concepts of Preciseness Based on Frequency and Gravity of Misinterpretations

The main object of precization being to decrease the chance of misinterpretation with weight effects, it may be fruitful to construct concepts of precization other than those introduced, namely concepts deliberately based on criteria of actually observed cases of such misinterpretation. If the misinterpretation is defined in terms of a relation of T_0 to a pair of formulations T_1 and T_2 (the «*discrimination*»), this pair functions to clear up the misunderstanding, and we may also call them «*clarifiers*». We may, for example, introduce the following concept:

« T_1 is more discriminating than T_0 within a discussional field S » shall in this work mean the same as «There have been cases of discussions within S in which T_1 has had the function of a clarifier in relation to a misinterpretation of T_0 , but there have been no cases of discussions within S in which T_0 has had the function of a clarifier in relation to a misinterpretation of T_1 ».

The main difference between our previous concepts of preciseness and this concept is that the formulation « T_1 is more discriminating than T_0 » expresses an account of actual development of certain kinds of discussions, namely those containing elements identifiable with steps (1)–(5), or a closely similar sequence of steps. It is a historical hypothesis, an account of

III.7. «Mere Questions of Terminology»

past instances of usage, and a description of certain kinds of happenings involving past usage. Preciseness as defined by (1) on page 62 refers, on the other hand, to *dispositions* to use T_0 in certain ways insofar as possible future cases of use of T_0 are relevant. Future cases are by definition relevant as seen from (1) on page 57: «the expression «a» is a synonymic alternative of the expression «b» shall mean the same as «a» and «b» *may* be synonymous».

In the example of section 5 pages 150–52, the use of certain synonymic alternatives for the original sentence changed the discussion and revealed pseudoagreement. In that example, the formulations T_1 (The newspaper has few pages today) and T_2 (There is little news in the newspaper today) are both discriminators and clarifiers in relation to T_0 (The newspaper is thin today) within the discussion observed. If we declare T_1 and T_2 to be more discriminatory, this is a hypothesis that we, from general considerations and previous experiences, may have more or less reason to affirm. The affirmation of such a relation of discrimination may be made a broad or narrow working hypothesis according to how we delimit the discussion field S.

III.7. «Mere Questions of Terminology»

What is meant when a question is said to be «merely terminological»? Often, this saying is based on the argument that the answer to the question depends on the meaning of the question. Differences in meaning of the question result in differences in answer.

Such an argumentation holds good for any question whatsoever. If the question is interpreted before being answered, the answer depends at least in part on what is meant. Thus, in a sense, all questions are «terminological».

More plausible interpretations of « T_0 ? is a mere question of terminology» are perhaps found in the following direction of precization: «Whether one adheres to this or that answer to T_0 ? depends *only* on how T_0 ? is interpreted. Given a certain interpretation T_i ?, all agree.» In some cases a question T_0 ? seems to be called «merely terminological» if verbal disagreements among answers always represent pseudodisagreements. The expression refers to existing verbal disagreements, not to any possible disagreement whatsoever. The possibilities of interpretation are not viewed as unlimited, but as limited to certain directions that are represented in current discussion.

If this usage is adopted, the classification of questions into terminolog-

III. MISINTERPRETATION AND PSEUDOAGREEMENT

ical and nonterminological becomes largely arbitrary. It will depend on the range of interpretations considered «possible» in a rather indefinite way. It seems that besides frequency there are other factors determining the classification of what is «possible» in the realm of interpretation: the prestige and authority of the interpreters, the practical consequences of adopting this rather than that terminology, and so on.

In discussions, the answer «It is a question of terminology» to an opponent's question seems often to function as a convenient preface to an effort of precization and subsequent answer by conditional sentences: «If by T_0 is meant T_1 , then my answer to T_0 is positive. If, however, ---.»

Concluding, we may say that questions are always terminological in a certain (rather unfruitful) sense, but in other senses are only rarely merely terminological. Elaboration of the issue leads to the use of distinctions such as those of previous sections. They are able to clarify the rather obscure but important complications of communication involving «terminological issues».

III.8. Misinterpretation and Pseudoagreement in Relation to Imperatives

To the assertion of formulations correspond announcement of imperatives and posing of questions. Verbal agreement and disagreement about formulations do not correspond closely to the announcement of imperatives that are symbolized as follows:

- (1) Ann ($PT_0!Q$)
- (2a) Ann ($PT_0!Q$)
- (2b) Ann ($P-T_0!Q$)

If P uses an imperative, for example, «Q, stick to your definitions!», this may be done with Q as the only receiver of the communication or with a large public as anticipated, if not intended, receivers. To avoid confusion, we shall have to distinguish the *group of receivers* of a sentence expressing a command or exhortation (an «imperative» in the terminology of chapter 2, section 14), and the group of persons, if any, that the announcer of the sentence intends to command or exhort. We shall call the latter the *group of intended obeyers*.

III.8. Misinterpretation and Pseudoagreement in Relation to Imperatives

Even if it is essential for the purposes of an announcement that it be heard or read by people other than the intended obeyers, the announcement may be said to be directed only to the intended obeyers.

The intention does not, any more than in the case of assertions, imply honesty: we may intend to assert a falsehood, and we may direct a command to a person without the purpose of making him obey (and without pretending that the imperative is justified). If a person announces an imperative and shows the usual behavior that is connected with the delimitation of a group of intended obeyers, that group shall, in our terminology, be said to be the intended obeyers, even if the person does not wish to make the group obey. A better word for «intended obeyers» might therefore be «the group commanded or exhorted».

A command or exhortation may or may not elicit a verbal answer. If I say «Shut the door!», the intended obeyer may shut the door (or leave it open) without a word of comment. But he may also happen to *say* «Yes» or by other words or gestures *assent* to the command. We shall presume that the assent may be expressed by the sentence «I intend to obey the command (or exhortation)». If $T_0!$ is the command and Q is the intended obeyer, it will be symbolized by

Ass (Q, Sat ($QT_0!$), P)

Q asserts that Q intends to satisfy $T_0!$ with P as the intended receiver (of this message).

In the case of requests that involve complicated or time-consuming actions, it is common, explicitly and verbally, to assert or oppose the request.

Suppose we observe the following sequence of attempts at communication:

- (1) Ann ($PT_0!Q$)
- (2a) Ass (Q, Sat ($QT_0!$), P)
- (2b) Ass (Q, -Sat ($QT_0!$), P)

We shall at step (2) below speak of *verbal agreement* or *verbal disagreement* concerning the imperative $T_0!$ between P as announcer and Q as intended obeyer.

III. MISINTERPRETATION AND PSEUDOAGREEMENT

Let us, in analogy with steps (3a) and (3b), of section 3, suppose the sequence develops as follows:

(3a) Ass [P, Syn (T₀! T₁! P(i)), Q]

(3b) Ass [P, Syn (T₀!T₁!P(i)) & -Syn(T₀!T₂!P(i)), Q]

Further,

(4a) Q: That is how I interpreted you.

Ass [Q, Syn(T₀!P(i), T₁!Q(i)), P]

(4b) Q thought: Syn(T₀!P(i), T₂!Q(i))

(4c) Q: To me T₀!, T₁!, and T₂! mean the same.

(4d) Q: To me T₁! and T₂! mean the same, but something different from T₀!.

These and other possible developments are of importance for the understanding of effective communication involving imperatives, and we shall accordingly introduce and name a set of distinctions corresponding closely to those of section 2.

Verbal Agreement at Step (2) Between Announcer and Intended Obeyer

A1 Verbal agreement and interpersonal synonymy give
«expressed (communicated, conveyed) imperativistic
agreement».

A2 Verbal agreement and lack of interpersonal synonymy and
imperativistic agreement give:

A2.1 «pseudoexpressed imperativistic agreement».

Verbal agreement and lack of interpersonal synonymy and imperativistic disagreement give:

A2.2 «pseudoagreement».

The corresponding classification of conditions following on verbal disagreement is closely analogous to that concerning formulations. We need not discuss further steps because they all correspond to possibilities discussed in relation to formulations.

Let us, on the other hand, consider the following sequence:

- (5) $\text{Ann}(\text{PT}_0!\text{R})$
- (6a) $\text{Ann}(\text{QT}_0!\text{R})$
- (6b) $\text{Ann}(\text{Q-T}_0!\text{R})$

Here we also may speak about verbal agreement and disagreement, but now between two announcers (directing their appeals to the same persons or to groups that have at least one subgroup in common).

Here also we need distinctions corresponding to those introduced in relation to formulations. We shall limit ourselves to mentioning the distinction between possibilities following on verbal disagreement (symbols corresponding to those of section 2 are used):

- B1 $\text{Ann}(\text{PT}_0!\text{R}) \& \text{Ann}(\text{Q-T}_0!\text{R}) \& \text{Syn}(\text{T}_0!\text{PS}, \text{T}_0!\text{QS})$
«expressed imperativistic disagreement»
- B2.1 $\text{Ann}(\text{PT}_0!\text{R}) \& \text{Ann}(\text{Q-T}_0!\text{R}) \& \neg \text{Syn}(\text{T}_0!\text{PS}, \text{T}_0!\text{QS})$
 $\& \text{Ann}(\text{Q-T}_1!\text{R}) \& \text{Syn}(\text{T}_1!\text{PS}, \text{T}_1!\text{QS}) \& \text{Syn}(\text{T}_0!\text{T}_1!\text{PS})$
«pseudoexpressed imperativistic disagreement»
- B2.2 $\text{Ann}(\text{PT}_0!\text{R}) \& \text{Ann}(\text{Q-T}_0!\text{R}) \& \neg \text{Syn}(\text{T}_0!\text{PS}, \text{T}_0!\text{QS})$
 $\& \text{Ann}(\text{QT}_1!\text{R}) \& \text{Syn}(\text{T}_1!\text{PS}, \text{T}_1!\text{QS}) \& \text{Syn}(\text{T}_0!\text{T}_1!\text{PS})$
«pseudodisagreement»

III.9. Misinterpretation of Questions

Let us consider different developments of a communication beginning with a question and an answer. Let « $\text{Pos}(\text{PT}_0?Q)$ » stand for «P poses the question $\text{T}_0?$ for Q to answer».

- (1) $\text{Pos}(\text{PT}_0?Q)$
- (2a) $\text{Ass}(\text{QT}_0P)$
- (2b) $\text{Ass}(\text{Q-T}_0P)$

Q is here the person or group of persons asked, not necessarily the total group of receivers. By (2a) we symbolize a verbal positive answer; by (2b), a

III. MISINTERPRETATION AND PSEUDOAGREEMENT

negative. The symbolization is adapted only to questions that request the person asked to indicate whether he accepts or rejects a formulation. Thus, «Do you expect the United States to fight in another war within ten years?» can be subsumed under (1) if reformulated into «Do you consider T_0 tenable, if T_0 is «I expect . . .?»» A question such as «What do you think will be the biggest problem you or your family will have to face in the next few years?» cannot be subsumed, however.

As regards the possibilities of misinterpretation, a classification closely similar to that concerning formulations can be developed.

Thus, we arrive at the following distinctions in relation to communications opening with a verbal negative answer.

- B1 $\text{Pos}(PT_0?Q) \ \& \ \text{Ass}(Q-T_0P) \ \& \ \text{Syn}(T_0?PS, T_0?QS)$
 «expressed negative answer»
- B2.1 $\text{Pos}(PT_0?Q) \ \& \ \text{Ass}(Q-T_0P) \ \& \ -\text{Syn}(T_0?PS, T_0?QS)$
 $\& \ \text{Ass}(Q-T_1P) \ \& \ \text{Syn}(T_1?PS, T_1?QS) \ \& \ \text{Syn}(T_0?T_1?PS)$
 «pseudoexpressed negative answer»
- B2.2 $\text{Pos}(PT_0?Q) \ \& \ \text{Ass}(Q-T_0P) \ \& \ -\text{Syn}(T_0?PS, T_0?QS)$
 $\& \ \text{Ass}(QT_1P) \ \& \ \text{Syn}(T_1?PS, T_1?QS) \ \& \ \text{Syn}(T_0?T_1?PS)$
 «pseudonegative answer»

Let us then consider other types of questions and answers:

- (1) P: $T_0?$
 (2c) Q: U.
 (3) P: By $T_0?$ I meant $T_1?$, not $T_2?$.
 (4a) Q: That is how I interpreted your statement.
 (4b) Q: I thought you meant $T_2?$.

As a fifth step in relation to formulations, we took into consideration whether Q accepts T_1 and T_2 . In relation to questions, such a development makes no sense, and we do not get any corollary to the classification into pseudoagreement and propositional agreement, etc. We may limit ourselves to stressing the importance of interpersonal synonymy of question formulations.

In case (4a) we have a symptom of interpersonal synonymy of T_0 ? and hence of «real» or «to the point» answers. In case (4b) we have a symptom of interpersonal heteronymy and hence of «pseudoanswer» attributable to the difference between T_1 ? and T_2 ? as interpreted by the replier.

III.10. Latent Disagreement

In the foregoing sections, a series of concepts were introduced in order to establish a fruitful classification of steps in certain kinds of discussions. The concepts, slightly modified, are, however, applicable to a much broader field of investigation.

Let P and Q be two persons who may never have met each other and may not even know of each other's existence. Suppose they both have asserted T_0 . If, in the terminology of the analyst, P by T_0 means T_1 and not T_2 , and Q by T_0 means T_2 and not T_1 , one may still say that there is verbal agreement between P and Q concerning T_0 , meaning thereby that under certain normal conditions of communication they would react affirmatively to each other's assertion of T_0 . Let us say then that the agreement is *latent*. Similarly, «*latent pseudoagreement*» may be said to be present in cases of latent verbal agreement, lack of interpersonal synonymy, and propositional disagreement.

By such modified concepts, the potential development of controversies can be described. In practice, predictions based solely on investigations of latent relations may break down because the clash of individuals in oral or written debates introduces new factors that may influence what they say and how they interpret each other. Even if this is conceded, the latent structures are of importance, especially in opinion surveys.

Let us take an example of research in which concepts of the kind here introduced are convenient and fruitful. Tønnessen (1950–51) shows (roughly) that persons with rightist inclinations in politics accept certain favorable opinions about something they call «private enterprise». There is, in reference to certain formulations, a high degree of latent verbal agreement within the group studied. Detailed study of variations in interpretation of the term within the group shows that there are latent pseudoagreements of considerable interest. It is possible to distinguish two groups, rightist politicians and rightist businesspeople, that on the whole have different in-

III. MISINTERPRETATION AND PSEUDOAGREEMENT

terpretations of the term «private enterprise» and therefore would, in relation to certain precizations of the term, disagree. There is a relatively high degree of propositional disagreement and therefore, in relation to the latent verbal agreement, a high degree of latent pseudoagreement. By intensive use of questionnaire and interview methods, the analyst can map out the structure of latent agreements and disagreements fairly accurately and supply corrections to the usual public-opinion conclusions about agreement and disagreement. Mostly, such conclusions are based on latent verbal agreement. If 100 people answer «Yes», they are listed as agreeing. Left undiscussed, however, is what they agree to, if anything.

IV

Definitoid Statements

IV.1. Synonymity Announcement Sentences

In chapter 1 section 1, the expression «synonymity sentence» was introduced as a technical term for declarative sentences showing certain common features.

The term «*synonymity announcement sentence*» will be used for a sentence obtainable by a change in a (declarative) synonymity sentence: an expression «is», «are», «has», «have», «mean(s)», or «express(es)» is changed into «shall be», «let --- be», «is to be», «are to be», «shall have», «let --- have», «is to have», «are to have», «shall mean», «let --- mean», «is to mean», «are to mean», «shall express», or «let --- express».

As in the case of a declarative sentence, one may divide the announcement sentences into expressions indicating the *semiotic relation* («shall mean the same», «are to be used synonymously with», etc.) and expressions indicating the *relata*. Let the latter be called indications of *intended subject matter of the announcement*. They may be conveniently divided into references to, first, the expression(s) that one says shall have (etc.) the same meaning as certain others—let them be called the «*definiendum expressions*»; and second, the expression(s) that are said to have the meaning that the *definiendum expressions* should (etc.) have—let them be called the «*definiens expressions*».

The separate names suggest an important dissymmetry. If somebody says ««x is meaningful» shall mean the same as «x is testable in principle»», there is a great chance that he would not consent to the substitution of his announcement sentence with the announcement sentence ««x is testable in principle» shall mean the same as «x is meaningful»». In the case of declarative sentences, such a substitution of left-hand for right-hand

IV. DEFINITOID STATEMENTS

relatum may be expected sometimes to have no effect on the intended cognitive meaning. In the case of (declarative) synonymy sentences, a substitution of left- with right-hand relatum may, however, render the attempt at communication less adequate. If, for example, a child asks «What is democracy?» and its father answers that ««Democracy» means the same as «rule by the people»», this has perhaps a better chance of conveying something to the child than the answer ««Rule by the people» means the same as «democracy»» when the child asks «What is rule by the people?».

In addition to the definiendum and definiens expressions, the indications of intended subject matter often include *marginal references* of the kinds discussed in relation to declarative synonymy sentences.

As a convenient symbol for synonymy announcement sentences, the following will be used:

Syn (aM₁bM₂) (Ann)

The only difference from the symbol for declarative synonymy sentences is the addition «Ann» (for «announcement»). If an explicit distinction is needed, the symbol «Ass» (for «assertion») may be added in the case of declaratives:

Syn(aM₁bM₂) (Ass)

A synonymy announcement may, like a synonymy sentence, cover a vast field of occurrences or a very narrow field. It may be intrapersonal: let me mean by «true» the same as «real» (means to me). Or it may be interpersonal: for the sake of argument, let «space» mean to us the same as «space» meant to Newton. It may be intrasituational: let «moral» mean the same in our discussions as «of ethical relevancy» means in our discussions.

But as soon as it is asked, How is a synonymy announcement evaluated, tested, negated, justified?, very marked differences from declarative synonymy sentences immediately make themselves felt. Whereas the character of assertion usually associated with the latter has long been extensively discussed by those concerned with the methodology and theory of knowledge, the announcement character has chiefly been subjected to discussion in the twentieth century, and the discussion is still rather confused.

In view of this situation, it will be one of the aims of the following exposition to avoid controversial problems that are of minor importance to a fairly precise and detailed treatment of *terminological announcements* (conventions, proposals, regulations, norms).

A kind of concept that seems to us rather helpful is that of 'normative definition'. It will be introduced in what follows.

IV.2. Normative Definitions: Introduction

a. Definition

It is a wise rule not to use a designation with many and serious ambiguities as a concept designation. In certain fields of discussion, however, a term may enjoy such a dominating status that if an author takes care to avoid it, readers would hardly recognize that he deals with that field of discussion. The term «definition» is of this kind. It is in general use, and if its many senses are recognized, the designata cover considerable, and highly heterogeneous, fields of methodology.

The vagaries of this key term are far from unknown among logicians, and terms of qualification are added to it: «nominal» definition, «normative» definition, «ostensive» definition, «real» definition, and so on. Curiously enough, the complex designations are generally used as if they were expressing subconcepts or species concepts of a wide concept, that of 'definition in general'. Such a terminology amounts to a kind of rehabilitation of the term on the basis of the assumption that, after all, there must be some *important* characteristics of all concepts that have been called definitions. Justification of such an assumption, which is only too common in the case of well-established words, has not been forthcoming. Precization is confounded with specification.

In this work two concepts—or rather two concept families—will be introduced under the names of «normative definition» and «descriptive definition». A term «real definition» will also be introduced, but by means of definiens expressions that are so imprecise and difficult in application to concrete cases that we hesitate to talk about a *concept* of 'real definition'. There is no assumption whatsoever that things subsumable under normative, descriptive, or real definitions have common and specific characteris-

IV. DEFINITOID STATEMENTS

tics that warrant the introduction of a more general concept including all. In other words, the complex designations «normative definition» and «descriptive definition» are not used synonymously with «definition of the normative kind» and «definition of the descriptive kind», but rather with «normative-definition» and «descriptive-definition», suggesting single-word designations.

Very often, sentences of the kinds «Democracy is a (mere) form of government» and «A syllogism is a logical form used to test the validity of reasoning» assert, plausibly interpreted, a subsumability of an individual under a class or of a subgroup under a wider group or a subconcept under a wider concept. By *descriptive genus definition*, or in short, «genus definition», we shall mean a sentence that—according to our view as analyst—most plausibly can be interpreted in one or more of these directions. In classical logic the expression «genus proximum» has been extensively used, but the term «proximum» seems to us unfortunate if there is no established hierarchy of concepts in reference to which the genus definition is asserted.

By «*normative genus definition*» we shall mean a sentence that most plausibly can be interpreted as an announcement that an individual shall be said to belong to a class or that a subgroup (or subconcept) shall be said to be subsumable under a wider group (or concept).

These expressions will mainly be used in argumentations to the effect that certain sentences referred to by others as «definitions» are genus definitions, whereas they are mostly discussed as if they were descriptive definitions of usage, or real definitions. Confusion is likely to arise if two sentences of the form « $x_1 \in K$ » and « $x_1 \in L$ » are discussed as if they were of the form «« x_1 »syn« K »» and «« x_1 »syn« L »». The two sentences are sometimes declared to contradict each other, whereas they are more likely to be entirely compatible insofar as two different but compatible subsumability relations are being asserted.

In dictionaries and encyclopedias, it is useful to give genus definitions, but the problem of communication should be carefully considered: what is the chance that a formulation intended to furnish a genus definition, and not a complete descriptive definition of usage, will be interpreted as a genus definition by the public?

The chance can be considerably increased by careful formulation by the author of the article. The «A is B» form is usually inadequate.

If we considered groups of occurrences of the word «definition», it should be possible to construct a great number of concepts of 'definition' that would represent precisizations in relation to the total field of occurrences of «definition». Nothing like that is attempted here. The concepts introduced are held to belong to the great class of concepts that can be constructed by precisization in different directions, but it is not maintained that they are somehow outstanding among the many possibilities. It is claimed, however, that when «definition» is used for what will be introduced as 'normative definition' or 'descriptive definition', then a theory based on concepts of synonymy will be applicable.

Let us consider the following statement: «It is fundamentally wrong to identify definiendum with definiendum expressions. Real philosophical analysis gives definitions of concepts, not of expressions. That which is to be defined (for example, the definiendum) is a *concept*. Words are of interest to lexicographers, not to philosophers».

To this it may be answered that concepts are certainly interesting objects of research, but if they cannot be identified with expressions or with any other phenomena that are easily identified by different investigators by observation, we need criteria such that there is a fair degree of certainty that two investigators know when they are talking about the *same* concept and when they are talking about different concepts. One method—and the usual one in research—is to give names to concepts, that is, to specify concept designations, and to lay down the rule that this designation, if found within a certain context, is meant to name the concept at issue. The names may be perfectly conventional, for example, T, X, Puk, Punc, etc. The next step is to indicate how 'T' or 'X' is differentiated from other concepts, such that one investigator may say to another, «Aha, the concept 'Punc' that you have written about is just the same as the concept 'T' that I have been investigating». Now, such a characterization of the concept is highly difficult to give.

Suppose it happened that a person had a definite concept in mind, and had found out things about it, without ever having used a *verbal* characterization that, to him, furnished the criteria whereby the concept was distinguished from others. Now, if a person somehow has had a definite concept in mind, it is the job of the analyst to find definiens formulations that are apt to *express* the concept *named* by means of the definiendum expression «X», «T», «Punc», or «Truth», or whatever expression is selected as con-

IV. DEFINITOID STATEMENTS

cept designation. The attention of the analyst is concentrated on the definiendum only insofar as it is a *concept*-designation. What is to be defined may be said to be the definiendum *expression* only insofar as that expression functions to name a concept. That is, it is proper to say that the concept 'a' is defined by means of «b», if «a» is the definiendum expression and «b» the definiens expression.

If a philosopher has found out a great many things about 'a', the sentences may conveniently be divided into, first, those that seek to give the definitional (conceptual) characteristics of 'a', that is, give a characterization that makes us know which concept he is talking about; and second, sentences that express things he *has not stipulated but has found out* about 'a'. The first kind of sentence will furnish definiens expressions («b») in a normative definition setting forth what the philosopher has decided to talk about and to label «a». The other sentences of the book are synthetic assertions about the concept 'a', including such assertions as the one that 'a' is what Spinoza expresses by the term «*veritas*» (at certain text places), or that 'a' is such that it represents a symmetric and transitive relation between two entities, and so on.

One may thus safely say that elementary analysis is concerned with concepts. Concepts are not at all neglected. But drastic efforts are made to link hazy speculations to observable phenomena such that there is a chance of delimiting fairly definite intersubjectively constant objects of research. It is not our aim to rule out some realms of research, but to give methods for their delimitation. This makes it of paramount importance to avoid hypotheses about concepts that cannot be tested by hypotheses about sentences and designations or other kinds of directly testable assertions.

b. 'Normative Definition' Introduced

(1) In the present work, «sentence expressing a normative definition», or in short, «*normative definition*», shall be used synonymously with «sentence that announces that a certain expression within a certain field shall be interpreted or used synonymously with a certain other expression».

Let the first-mentioned expression be called the *definiendum expression*, the second, the *definiens expression*, and the field, the *intended field of application*.

Formulation (1) is insufficiently precise. Some comments and interpretations will be added that are given normative definitional status. They will, in other words, explain more accurately what (1) is intended to express.

1. Suppose a_1 is an occurrence of a definiendum sentence «a». The occurrence a_1 will be said to be used or interpreted synonymously with an occurrence b_1 of a definiens sentence «b» if, and only if, a_1 as thus used is cognitively synonymous with b_1 .

According to the general plan of exposition, a variety of concepts of synonymy are introduced later (chapter 7). It is at this stage found convenient to suggest in which common direction of precization of «synonymous» those concepts are located. The term «cognitively synonymous» is used in various ways, but the range of ambiguities is considered smaller than that of «synonymous», and the depth of intention with which it has been used, on the whole, greater. The convention expressed in item 1 is formulated in order to narrow down the ambiguities of (1) to some degree—it is adapted to the use we shall make of (1) in expositions of analysis of «definioid statements»¹ and in analysis of metaoccurrences in general.

2. Suppose a_1 is an occurrence of a definiendum designation «a». The occurrence a_1 will be said to be used or interpreted synonymously with an occurrence b_1 of a definiens designation «b» if, and only if, a_1 is used in such a way that if we, in the declarative sentence in which b_1 is presumed to occur, substitute «b» for «a», then the new declarative sentence is cognitively synonymous with the old.
3. By «sentence that announces» is meant «sentence that by its sender is intended to announce».

This convention makes it *per definitionem* valid to say that a formulation that expresses a normative definition means what its author has intended it to mean. Complications arise when the sender is an institution rather than an author.

4. The application reference is a reference to a field or fields of application of the definiendum expression. There may also be a reference to how the definiens expression is to be interpreted («the» standard of interpretation). The term «intended field of validity» will be reserved for the field indicated by the definiendum and definiens ref-

IV. DEFINITOID STATEMENTS

erences taken together. The two references will be called the *marginal references* of the normative definition.

5. The marginal references may be of any kind mentioned in connection with synonymy sentences (chapter 1, sections 1 and 2). It is presumed that a field of application is intended. That field does not need to be explicitly mentioned, however.
6. «Or» is in (1), as everywhere else in this work, used for the inclusive *or*.
7. An announcement sentence will be said to announce that something shall be, if it can be said to express a decision, proposal, or command that something shall be.
8. The definiendum expression and the definiens expression may be the same. The case of marginal references also being identical is only of theoretical interest. The shorter expression «N-definition» will often be used for «normative definition».

Convenient symbols for normative definitions:

(1s)	Syn(aM ₁ bM ₂)	(Ndf)
a	definiendum expression	
b	definiens expression	
M ₁	reference to intended field of application	
M ₂	reference to stipulated interpretation of the definiens expression, for example, by means of reference to an occurrence	

Suggested reading of (1s): «a shall in M₁ be synonymous with b in M₂».

c. Identification of Normative Definitions

Normative definitions are sometimes, but not always, expressed by synonymy announcement sentences. Such sentences are, however, convenient to use for explication of normative definitions.

Comparing the ‘field of intended application’ with ‘intended subject matter’ of synonymy hypotheses and announcements we see that the for-

mer corresponds to part of the latter, namely the subject matter represented by the occurrences of one of the expressions.

Are there sentences that with a high degree of certainty can be identified as (expressions of) normative definitions? There are, but they have so far been seldom used and do not belong to the fields of discussion in which we are primarily interested. As an example of a subsumption that can be made with a high degree of certainty, that of formulation (1) in this section may be mentioned.

Far more frequent are those cases in which a sentence can plausibly be interpreted as a normative definition *or* as something closely similar. It is here contended that for many purposes it is useful to investigate whether this holds good or not. And even in cases in which the answer is «probably not», it is sometimes useful to find out what the consequences would be if the formulation were interpreted as a normative definition.

No justification of these assertions about usefulness and fruitfulness can be given at this place. On the whole, the argumentation will refer to the use of concepts similar to the above introduced in recent methodology. In discussions showing applications of the introduced concept, its merits will, we hope, become sufficiently clear.

d. Complex Normative Definitions

A synonymity announcement usually is intended to regulate a more or less considerable, more or less vaguely outlined group of expressions. As normatively defined, only one expression is the definiendum expression of a single normative definition. One may, on the other hand, abbreviate a conjunction of normative definitions into a single sentence. One may, for example, announce that «true», «*wahr*», «*vrai*», and «*sann*» should be interpreted in this or that way, thus expressing four normative definitions.

The point is of interest only because it is not uncommon for someone to announce a normative definition and mention only one definiendum expression, whereas later argumentation seems to rest on the assumption that by the one normative definition, the use of a whole, vaguely conceived, group of other but «similar» expressions in the same or another language was regulated.

Of more interest is the case of intended fields being divided into sub-

IV. DEFINITOID STATEMENTS

fields, each corresponding to a definiens expression different from the others. It may, for example, be proposed that in psychology «a» should be used synonymously with «b», whereas «a» as used in physiology should be interpreted to mean the same as «c». In general, there may be a list of intended fields of application, and a list of definiens expressions (with their specific marginal references) and a convention that in field number *i*, the definiendum expression should be used synonymously with the definiens expression number *i*.

IV.3. Interpretative Announcements

The term «interpretative announcement sentence» will be used as a name for sentences like the (declarative) interpretative sentences except that instead of the words «is», «has», «means», «signifies», «connotes», «expresses», there occur at the corresponding places in the sentences «shall be», «let be», «is to be», «shall have», «is to have», «let --- have», «shall mean», «is to mean», «let --- mean», «shall express», «let --- express», «shall signify», or «shall connote».

What has been said about references to intended subject matter of synonymy announcement sentences may be said, *mutatis mutandis*, about interpretative announcement sentences. To symbolize the latter, we will use:

Sign (aM_1b) (Ann)

Corresponding to the introduced term «normative definition», a term «normative interpretative definition» will be introduced. To remind ourselves of the main difference in their definiens expressions, we might replace the former with «normative synonymic definition».

(1) In the present work, «*normative interpretative definition*» will be used synonymously with «sentence that announces that a certain expression, the definiendum expression, shall mean the definiens, within a certain field».

Formulation (1) is considered to be insufficiently precise as a normative definition of ‘normative interpretative definition’. No precisations or comments will be added, however, because it is unlikely that a fruitful concept

can be constructed on the basis of (1). Or, stated more carefully, it is unlikely that such a concept can be of much use for the purposes of this work. The concepts of synonymy introduced in chapter 7 are such that the intended announcement of interpretative announcement sentences are well taken care of in terms of normative synonymic definitions.

There is a strong argument for the assumption that a concept of normative interpretative definition would be more fruitful than that of normative synonymic definition:

The frequency of interpretative announcement sentences in scientific literature is much greater than the frequency of synonymy announcement sentences. This may be taken as a symptom that something like an interpretative announcement is much more often intended than something like a synonymy announcement. Thus, the applicability of concepts of normative interpretative definitions would be much more extensive than that of normative synonymic definitions.

There are, however, many circumstances that weaken the strength of the above argumentation. Nothing is said in (1) about how the definiens can be identified except that an expression is used, which by the announcer of the normative definition is intended to signify the definiens. The definiens is an inferred entity from the standpoint of the public (the receiver). In practice, a normative interpretative definition can be satisfactory only if the receiver is capable of making a reliable hypothesis about what the definiens expression is intended to signify (mean), or if he is capable of immediately interpreting the expression in a way adequately rendered explicit by such a hypothesis.

Interpretative announcement sentences often—and especially often in the exact sciences—rather obviously are meant implicitly to express an announcement with a marginal reference attached to the definiens expression. A sentence such as «*a*» shall mean «*b*» can in such cases be transformed into «*a*» shall mean *b*, «*b*» being interpreted in accordance with the introduced normative definition of «*b*» (or terms included in «*b*»). In cases of basic terms, however, no regulations have been adopted regarding how to interpret «*b*». The presence of a tacitly assumed marginal reference of «*b*» makes it appropriate to use a synonymic announcement sentence: «*a*» shall mean the same as «*b*» in the sense stipulated by introduced normative definitions».

IV. DEFINITOID STATEMENTS

If there is no explicit standard for how «b» is to be interpreted, this seems often to owe to the assumed obviousness of how «b» should be interpreted. Or, it owes to lack of definiteness of intention. Or, considerations of economy of signs play a dominant role: interpretative sentences are shorter and easier than synonymic sentences. Thus, the motive that often makes one use an interpretative announcement sentence instead of a corresponding synonymic one, is one of expository convenience.

This is not the place for a general discussion of the relation of interpretative announcement sentences to normative definitions. Suffice it to say that the greater frequency of interpretative announcement sentences compared to synonymic ones, does not constitute a strong argument for the usefulness of the concept of normative interpretative definition.

IV.4. Normative Definitions Exemplified

Note on Normative Definitions in This Work

The present work includes a great number of normative definitions. A minority of them are expressed by synonymy announcement sentences. An example of such a sentence is that which introduces the term «synonymic alternative». It has the form ««a» shall mean the same as «b»». The reason that this form is not used in all other cases of normative definitions herein is the greater expository convenience of other forms, and sometimes the requirement of style. The intended field of application is always the text of this work. (This does not preclude the possibility that proposals for extension of the field will be made under certain conditions.)

Normative definitions in this work that are not expressed by synonymy announcement sentences are expressed by means of other phrases, such as the following: «a» will be used as a collective name for b and c; the name «a» will be given to b; let us call b «a»; if, and only if, ---, then «a» will be said to be ---.

The phrases ««a» will be used synonymously with «b»» and ««a» will be used for b» are of some theoretical interest because they may plausibly be interpreted to express a *prediction* of future or forthcoming usage, or to express an *announcement* (and thereby express a normative, synonymic, or interpretative definition), or to express the conjunction of a prediction and an

announcement. In this work, the intention is to express announcement of a decision. From such announcements by an author, we may safely assume that he has—at least when making the announcement—more or less complete confidence in the corresponding prediction, which amounts to the prediction that one shall be able or has been able to realize the intentions.

Example 1

A paper by W. K. Clifford opens as follows: «1. Let us define as follows. A point is taken *at random* on a (finite or infinite) straight line when the chance that the point lies on a finite portion of the line varies as the length of that portion» (see Smith 1929: 540).

Hypothesis: Clifford intends by the quoted passage to express a normative definition. Its definiendum expression is «The point(s) --- is (are) taken at random on the (finite or infinite) straight line ---». Its definiens expression is «The chance that the point lies on a finite portion of the line varies as the length of that portion». Its intended field of application is the paper called «On higher space».

Example 2

In Terrell and Corsellis's work on patents (1927), some patent rules are quoted. In the introductory section it is said, «In the construction [= interpretation] of these Rules ---, «Office» means the Patent Office, «Journal» means the Illustrated Official Journal (Patents)» (ibid., p. 503).

Hypothesis: The quoted passage is intended to express an announcement of what the terms «Office» and «Journal» shall mean within the text represented by the British Patent Rules of 1920.

Example 3

In the introduction to *Principia Mathematica*, one finds the sentence «A definition is a declaration that a certain newly introduced symbol or combination of symbols is to mean the same as a certain other combination of symbols of which the meaning is already known» (Russell and Whitehead 1910–13: I:11).

Hypothesis: The quoted passage is intended to express an announcement of a decision that every instance of «definition» in *Principia Mathematica* is to mean the same as «declaration that [---, etc.]».

IV. DEFINITOID STATEMENTS

This hypothesis is strongly disconfirmed by taking into account the sentence following the quoted one, «Or, of the defining combination of symbols is one which only acquires meaning when combined in a suitable manner with other symbols, what is meant is that ---».

The or-sentence indicates that two subclasses of occurrences of «definition» must be distinguished. The quoted definiens is one that is adapted to only one of the classes of occurrences.

Example 4

In the text «The descriptive definition of the concept ‘legal norm’ proposed by Hans Kelsen» written by H. Ofstad (1950b), we find on page 123 the following paragraph:

«A formulation T is an *explicatum* of a formulation U» shall signify the same as «The author of U would have accepted T as for him more precise than U if he had been aware of the possible interpretations: Y, V, W, . . . of the formulation U, which were for him intention-transcendent when U was asserted».

Interpreting in the light of the context and on the basis of other data, we infer that this paragraph is intended to express a normative synonymic definition. The definiendum expression is a declarative sentence, «The formulation T is an *explicatum* of a formulation U». We have substituted «The» for «A» in the text. Such a substitution is warranted because the normative definition of normative (synonymic) definition, (1) on page 166, is formed as a «that» sentence (in the terminology of Carnap (1947: 27). Ofstad may be said to announce that a certain sentence, «The formulation ---», shall be used synonymously with another, even if he does not announce that ««The formulation ---» shall be used synonymously with ---».

The definiens expression is a declarative sentence, «The author of U ---». The intended field of application is very probably what Ofstad (1950b: 122) calls «out analysis», and which may be identified with the text from which the quotation is drawn.

The announcement may be viewed as an announcement of a decision rather than of a proposal or command.

Example 5

In Anastasi's *Differential Psychology* (1937: 156), we find the sentence: «For reasons of convenience, as discussed above, we may arbitrarily define equal

IV.5. Conditions of Two Sentences Expressing the Same Normative Definition

practice as equal time spent in practice and express scores in terms of amount done per unit of time».

The use of the characterization «arbitrarily» makes it probable that something closely similar to a normative definition is intended. From various considerations based on reading the text, we are inclined to think that an interpretative rather than a synonymic definition is intended. No explicit mention is made of field of application, but from various sayings it may be inferred to include Anastasi's text *Differential Psychology*.

IV.5. Conditions of Two Sentences Expressing the Same Normative Definition

In methodology, sentences stating that two persons adhere to the «same definition» seem to be used in rather different senses, or at least to be applied according to different criteria in practice. Sometimes the sentence is corroborated by pointing to identical *wordings* of two normative definitions. According to the introduced terminology, a coincidence of wording may be regarded as a strong symptom of identity of announcements. The auxiliary hypothesis must be made, however, that there is interpersonal synonymy between the definiens expressions. Often, that interpersonal synonymy is openly contested. Thus, whereas proponents of different ideologies announce their adherence to the Lincoln formula as definiens expression of «democracy», it is common to find actions indicating that the outgroup does not interpret the formula as Lincoln may be supposed to have done.

In the N-definition of N-definition, (1) on page 166, a «that sentence» is used: «--- sentence that announces *that* a certain expression within a certain field shall be interpreted or used synonymously with a certain other expression». Consequently, *identity of intended meaning* of definiens is required as definitional criterion of identity of N-definitions. The requirement may be satisfied irrespective of which terms are used in the definiens formulations.

It is customary to state that two persons adhere to the «same definition» in spite of differences in definiendum expression. Some, like G. E. Moore, seem to mean by «definiendum of a definition» something expressed by designations, that is, something like concepts in the terminology adopted in this work. If one adopts Moore's terminology, the «same de-

IV. DEFINITOID STATEMENTS

finition» may of course be expressed by use of very different definiendum expressions.

Even if the terminology making definiendum into concepts is not adopted, variation of definiendum expressions is tolerated. Standard translations into different languages are considered irrelevant. Thus, one may say that Einstein defines «*simultanéité*» in this or that way, even if the text of Einstein referred to is not written in French, and even if Einstein cannot in strictness be said to use any substantive as definiendum expression. In the present text, I sometimes refer to the normative definition of «preciseness». The definiendum expression is, however, «more precise than», or to be more accurate, ««a» is more precise than «b»».

According to (1), on page 166, a definiendum is a certain expression, and in our terminology, expressions consisting of different words, or words in a different order, are not identical. Thus, normative definitions may be distinguished from each other if definiendum expressions are different. Identity of two normative definitions would accordingly require identity of definiendum in the shape of identical definiendum expressions.

There are strong reasons to adopt such a requirement at least in principle.

Suppose a person interested in questionnaires asks, «How did you decide to use the expression «false»? Give me your N-definition». If I answer by saying, «I have decided to use the expression «*falsk*» (Norwegian for 'false') as follows: ---», this naturally raises the question of the adequacy of the translation of «false» into the Norwegian «*falsk*». For many purposes this translation is not adequate, but suppose we find at time S that it is, and that two N-definitions accordingly are accepted as standards. Now, if at the later moment S₁ there are symptoms of conflicting Norwegian and English theorems, involving the N-defined expressions, we may be inclined to believe that we have, after all, not used N-definitions with compatible consequences. The term «*falsk*» may after all be a bad translation of «false». The answer to the original question of how I have decided to use «false» proves misleading. If the N-definition of the expression «false» is N-defined in such a way that the expression «false», and no other expression, must occur as definiendum in all versions of the same N-definition of «false», then we are able better to distinguish different sources of disagreement. We can say, If «sameness of definition» is a hypothesis of the difficult kind relying on translation of the definiendum, the verbal or termino-

IV.5. Conditions of Two Sentences Expressing the Same Normative Definition

logical components of disagreement are more apt to be confused with other sources of disagreement.

The requirement of verbal identity of definiendum expressions is, as mentioned, important to make in principle. In practice, *explicit* recognition of the requirement in all its rigor results in cumbersome and complicated wordings. In this work we shall occasionally speak of groups of normative definitions *as if* they were identical. It is often found reasonable to suppose that if a person adheres to one, he would adhere to all, if suitable situations requiring reformulations were encountered. A person giving a normative definition of «gleich-zeitig» may be expected to decide on an identical definiens of «gleich-zeitig» and «samtidig». This makes it convenient to speak as if he had already accepted a group of N-definitions, one for each language.

Traditional depreciation of explicit marginal references has resulted in two persons' normative definitions being viewed as identical without consideration of possible, or even explicitly stated, difference in intended field of application. The researcher who N-defines his terms in the way he considers most fruitful within his particular field is often criticized by reference to fields in which the terminology might not be fruitful. What is criticized in such cases is not a proposed terminology, but a terminology derived from the first by neglecting its marginal references.

According to (1), page 166, the normative definitions of two persons are not identical if the marginal references do not express the same. Interpersonal synonymity relations are implied. At this point, as in relation to previously mentioned requirements, hypotheses about sameness of normative definitions involve complicated auxiliary hypotheses.

The character of announcement that, *per definitionem*,² attaches to normative definitions is something highly controversial in its nature, and I have not attempted to N-define it in this work. It is clear, however, that kinds of announcements have differences relevant to decisions about whether two sentences express the same normative definition. If one person announces a proposal, another a decision, and a third a command, it is an open question whether it is still fruitful to talk about one and the same normative definition being announced, even if definiendum, definiens, and marginal references are identical.

In order to take up perplexing main problems one at a time, I have so

IV. DEFINITOID STATEMENTS

far left unprecized the key expression of the adopted N-definition of N-definition, «synonymous», except for saying that it shall mean the same as «cognitively synonymous». Highly important differences of interpretation can be given to the latter term. It is not fruitful to treat two sentences as if they announced the same normative definition when there are reasons to suspect that different concepts of synonymy are implied, and therefore different criteria of N-definitions «being followed» are implicitly decided on.

In chapter 2, section 14, we introduced the technical terms «synonymy of imperatives», «preciseness of imperatives», and so forth. Normative definitions sometimes have the form of commands or requests, and the introduced terms therefore apply to them.

According to (1), page 166, two sentences expressing normative definitions in the form of imperatives are synonymous for P in S if, and only if, every expression that, according to P in S, designates a satisfaction (or non-satisfaction) of the first also designates a satisfaction (or nonsatisfaction) of the second, and vice versa.

That is, if P in S imagines possible states of affairs in relation to which he would conceive the normative definitions to have been followed, he would be unable to conceive any state of affairs such that, if it were realized, he would proclaim the one normative definition to have been followed and the other not to have been followed, and vice versa. If, in relation to every possible occurrence of definiendum, those occurrences that represent adherence to (or violation of) the one normative definition also represent adherence to (or violation of) the other, and vice versa, then the imperatives express synonymous normative definitions.

If the introduced criteria of sameness of normative definitions are used, sentences expressing the same normative definitions will, if imperatives, express synonymous imperatives, and vice versa.

IV.6. Purpose of Normative Definitions

Generally, a decision to do something has the function of eliciting reactions that without the decision would not have been carried out. A decision may, however, also function to *reinforce dispositions* to certain reaction patterns or habits, which might go on as usual even without a decision. The decision may in such cases serve to strengthen the disposition, to

make undesired variations less likely to occur, and to obtain other advantages connected with verbalized behavior as auxiliary stimuli for complex behavior patterns. Among these advantages the possibility of communication to oneself and others must be rated as an important advantage, even if it is partially a means for the already mentioned advantage of reinforcement of habits.

Generally, a decision to use «b» for «a» is apt to strengthen an already existent habit of using or interpreting «a» and «b» as synonyms, or to modify habits implying -Syn(abPS), or the decision will function to integrate a new sign «a» into the system of signs used by the person.

A terminological convention may be viewed as interpersonal decisions, intended to be identical in content. This presupposes rather complicated interpersonal synonymities.

As regards the *motives or reasons justifying* a decision to modify existing synonymy habits, we shall remind the reader of some prominent kinds:

1. Elimination of types of occurrences of «a» that have caused or are believed to cause misinterpretation of practical significance. A decision to use «b» for «a» is believed to change the interpretation of the occurrences in such a way that the misinterpretation will not ensue. Or, «a» will, if the decision is carried out, not occur in the situations in which those misinterpretations were likely to ensue.

2. Increase of *definiteness of intention* in use of «a», an increase believed to be necessary for some purpose or other. If «b» is a strong precization of «a», and it goes beyond the habitual definiteness of intention, the decision is apt to serve this end.

3. Simplification and standardization of language habits by making the existent system of synonymy and heteronymy relations less complicated.

To some degree, simplification and standardization are an important instrument for realizing the object of item 1, elimination of sources of misinterpretation. Apart from this, however, they also serve efficiency of communication and «economy of thought» in other ways.

As a schematical example, we shall describe how a normative definition functions to simplify and standardize language habits by decreasing the variability of meaning in relation to variation of person or situation, for example, by elimination of ambiguities in the sense adopted in chapter 1 of this work.

IV. DEFINITOID STATEMENTS

On the whole, the smooth operation of language habits is apt to be disturbed if a formulation «a» expresses different assertions in different situations or in relation to different persons within the same language society. Characteristics of the situations and persons have to be reacted to in addition to other characteristics. If «a» sometimes, but not always, expresses the same assertion, the bond between «a» and the organic and behavioral state supposed to be present when a person intends to make the assertion, has to be counteracted in a more or less complicated manner. If, now, there are available other formulations, which are not excessively long or in other respects as formulations inferior to «a», and which express those assertions that «a» expresses, without variations, it is convenient to eliminate «a» from use or to decide that it should always be synonymous with one of the formulations mentioned.

How such a process of simplification works in detail may be illustrated as follows:

Suppose it is found that

$$(1) \text{Syn}(aP_1S_1, aP_1S_2)$$

does not hold, and that S_1 and S_2 are types of situations likely to occur in the future. (This does not imply that misunderstandings ever occur.) That the synonymity relation (1) does not hold is usually taken for granted, if we find a «b» that is presumed to satisfy the requirement

$$(2) \text{Syn}(bP_1S_1, bP_1S_2)$$

and in relation to which «a» is variable:

$$(3) \text{Syn}(abP_1S_1) \ \& \ -\text{Syn}(abP_1S_2)$$

The decision (4) is apt to restore the desired relation (1) to postdecisional cases of S_1 and S_2 ; let us call them S_1' and S_2' :

$$(4) \text{Syn}(aP_1S_2', bP_1S_1') \quad (\text{Ann})$$

The decision, if carried out, results in:

$$(5) \text{Syn}(aP_1S_1', aP_1S_2') \& \text{Syn}(abP_1S_1') \& \text{Syn}(abP_1S_2')$$

This state of affairs implies a simplification and standardization compared with that described by (3).

We could also realize (1) by saying that «a» should be synonymous with «b» in neither S_1 nor S_2 . But then we must know a formulation «c» with the following properties:

$$\text{Syn}(acP_1S_2) \& \text{Syn}(cP_1S_1, cP_1S_2)$$

In that case we can announce:

$$(6) \text{Syn}(aP_1S_1', cP_1S_2') \quad (\text{Ann})$$

$$\text{or } \text{Syn}(aP_1S_1', cP_1S_1') \quad (\text{Ann})$$

Similarly, it is valuable for communication and economy of thought that we have interpersonal synonymities expressed by one and the same formulation:

$$(7) \text{Syn}(aP_1S_1), aP_2S_1)$$

That this interpersonal synonymity relation does not hold is usually (believed) discovered by finding a «b» that is presumed to satisfy the requirement

$$(8) \text{Syn}(bP_1S_1, bP_2S_1)$$

and in relation to which «a» is ambiguous:

$$\text{Syn}(abP_1S_1) \& \neg \text{Syn}(abP_2S_1)$$

A decision

$$\text{Syn}(aP_1S_1', bP_2S_1') \quad (\text{Ann})$$

results, if carried out, in the desired state of affairs:

IV. DEFINITOID STATEMENTS

$$(9) \text{Syn}(aP_1S_1', aP_2S_1') \& \text{Syn}(abP_1S_1') \& \text{Syn}(abP_2S_1')$$

We may now continue the enumeration of motives or reasons that are considered to justify an attempt to modify existent synonymy habits.

4. Some formulations or designations are deeply and widely integrated in the language habits of a group as expressions of important, well-confirmed assertions or well-serving concepts. To rescue these from a future status of expressing disconfirmed, abandoned assertions, or unfruitful concepts, one may propose changes in the meaning of a concept designation whenever disconfirming instances occur. The change is carried out in such a way that the deeply and widely integrated expression can be maintained with, however, slightly new meanings.

Depredation in their status of confirmation is apt to happen to all hypotheses and concepts as a consequence of continued research. Thus, important physical and chemical formulations traditionally said to express certain definite laws of nature are from time to time redefined to make it possible to retain the formulations.

The rescue is effected simply by modifying the meaning of the formulations or designations in such a way that previous disconfirmations become irrelevant toward, or confirm, the new assertions. How such modifications affect the system of hypotheses in physics and how they have inspired varieties of «conventionalism» in the methodology of that discipline have been extensively studied. There is no reason for us to go into those problems.

It should be noted, however, that decisions to change meanings by normative definitions do not in any way influence the previous disconfirmations. There is no reason to speak of immunity to disconfirmation being reached by conventions. The old assertion has been disconfirmed and is still exposed to further disconfirmation. The new is not yet disconfirmed, but may at any moment prove untenable. None of them is immune to confirmation or disconfirmation. Formulations and designations are made immune, not assertions. It is in the interest of economy of signs (of sign tokens) to change a limited number of synonymy relations rather than to change innumerable formulations that otherwise would have to be modified, and to give up designations that may appear hundreds of times in the textbooks of a certain field.

The stream of discoveries within each department of science makes any system of concepts grow more or less unadapted and less fruitful. The concepts are then «changed» more or less, that is, replaced by other concepts, often with only slightly different definitional characteristics. It is in the interest of economy of signs, as well as that of preserving what is still useful of the old language and research habits, to continue using the old conceptual designations, but to modify their meaning by normative definitions. We assume that no detailed examples are needed. A number of instructive ones are developed in elementary textbooks on methodology («acid», «atom», «chemical elements», «metal», «number», «species», etc.).

As regards designations that are new in a certain field, or are absolute neologisms, motives similar to those mentioned may be present. If great modifications, or small but very influential ones, are necessary to make a concept up-to-date, the preservation of its conceptual designation may be misleading and, no short designation being found by a combination of expressions in use, a new one is coined.

5. Very often, new designations are introduced mainly for the purpose of abbreviation: instead of using a long designation, we introduce a short one by a normative definition announcing the synonymy between them.

Suppose that there is a demand for using a designation, «b», ten times in a text of one thousand words, and suppose that «b» consists of twenty-one words. If an expression «a» consisting of one word is introduced and by normative definition said to be synonymous with «b» within the text, there will be a reduction of two hundred words. The new draft of the text will then be 20 percent shorter. Even if the time required to read the text and sufficiently understand it might not decrease as much, one may still expect a significant gain. We emphasize this trivial, numerical example because many questions of terminology could profitably be reduced to simple questions of psychology of reading and economy of time.

In this work we need a concept of 'more precise than' a considerable number of times. Each time the definiendum expression ««a» is more precise than «b»» is used instead of the definiens expression, the text is reduced by thirty-two words, if (1) on page 62 is used as the definitional formulation of «more precise than».

Whether it is justifiable to introduce a new sign is primarily a question of the psychology and sociology of reading and listening. In the

IV. DEFINITOID STATEMENTS

crowded scientific journals, sign-economical considerations tend to grow in importance.

IV.7. Preciseness of Definiendum and Definiens in Normative Definitions

It is often said that «definitions must be unambiguous». Such statements have a tendency to blur important distinctions and qualifications.

From the N-definition of N-definition, it cannot be inferred that a definiens expression must be more precise than the definiendum to anybody in any situation. This holds good before as well as after the time of announcement of the normative definition.

The hypothesis of greater preciseness of definiens expressions does not hold even sufficiently frequently to justify its adoption as a synthetic theorem of a hypothetico-deductive system.

There are, on the other hand, important connections between preciseness relations and relations within normative definitions, but of a slightly more complicated nature than the one suggested above.

1. Suppose «a» is a neologism and we plan for it to serve as a synonym for «b». To that purpose a normative definition of the decision variety is produced at the time S_1 . Is «a» more or less precise than «b» before S_1 ? If «a» is a strict neologism, it may happen that nobody would interpret it before S_1 ; for example, «a» has *no* synonymic alternatives, not even itself. From this does not follow that it must be at least as precise as any other formulation, and more precise than any formulation susceptible to synonymic alternatives. This does not follow because, according to (1) on page 62, the more precise term or sentence must admit at least one synonymic alternative other than itself.

From S_1 onward, it is to be expected that «a» turns out to be equally or less precise than «b», since any ambiguities of «b» will tend to be transferred to «a». On the other hand, the people using or interpreting «a» may occasionally forget its N-definition and make slight variations in interpretation. Within a short time there will be a tendency toward incomparability of preciseness if the comparison is not made in relation to reference classes and small groups of individuals and situations.

2. Let us next suppose that the normative definition serves the readapta-

IV.7. *Preciseness of Definiendum and Definiens in Normative Definitions*

tion of a conceptual system by means of rescuing disconfirmed formulations. In these cases it is irrelevant what level of preciseness the definiendum expression had before the announcement of the normative definition. After the announcement, however, it is to be expected that the definiens expression will not be less precise than the definiendum expression. Any relation of preciseness may turn up. It is not of primary importance to the success of the normative definition that certain preciseness relations should be realized.

Similar reflections can be made regarding normative definitions serving to introduce abbreviations.

3. On the other hand, improved preciseness in some form or other plays an important role in constructing normative definitions that serve to simplify and standardize speech habits and conventions. The same holds true of normative definitions that serve the increase of definiteness of intention or the elimination of ambiguities.

It is inconvenient, however, to put the requirement of preciseness into the N-definition of N-definition. If the preciseness of definiens is deficient, the normative definition is more or less bad, but still a normative definition according to our terminology. If superior preciseness were required *per definitionem*, it would be difficult to confirm that a sentence expresses a normative definition without empirical investigations of usage. After some time, a normative definition might even cease to exist because of new ambiguities resulting from new habits of speech.

As regards the preciseness required (synthetically) of normative definitions serving as mentioned, this is not a question of preciseness in general, but of preciseness in specific situations for certain persons, and in relation to more or less definite reference systems of heteronymous interpretations.

In the case of elimination of ambiguities, the normative definition must be based on hypotheses about the relative level of preciseness in relation to a definite reference class. Generally, interpersonal synonymity relations are involved. The normative definition fails if based on wrong assumptions about usage. Thus, if a definiens expression is introduced because it is believed to be unambiguous within a certain kind of situation, and it is not, the normative definition fails to fulfill its purpose. It also fails if it is not followed fairly consistently, or if usage undergoes such changes after its announcement as to make the definiens less precise in relation to the reference class at issue.

IV. DEFINITOID STATEMENTS

Hypotheses on usage outside the exact sciences and the science of law tend to be based mostly on armchair methods involving questionnaires put forth and answered by the same person. It is therefore not astonishing that «definitions» are viewed with much skepticism by many people: they seem to expect cases of *obscurum per obscurius* rather than cases of *obscuritas major per obscuritatem minorem*.

If a normative definition serves to eliminate ambiguities or to increase definiteness of intention, it usually also serves to abbreviate and simplify. Thus, if a short definiendum is introduced on the basis of a long and precise definiens, the normative definition seeks to retain both the simplicity of the definiendum and the preciseness of the definiens.

If an expression «b» is more precise than «a» for P in S, «b» is usually more complicated than «a». This holds good especially if «b» is a strong precization and S is outside the exact sciences. If it is desired that «a» always should be interpreted in the more precise sense of «b», this may justify a normative definition, which makes it possible to retain the use of the short or easy expression «a» and at the same time makes it reasonable to expect a sharp decrease in undesired interpretations. The decrease makes the definiendum «a» more precise, but instead of making a normative definition, why not simply decide (or propose or command) that «a» should not be used any longer? After we have made a heteronymous reference list in relation to which the undesired, practically significant ambiguities of «a» are shown, our decision may take the following form:

«If «a» is intended to be used as synonymous with a member of the reference class R, that member should be used instead of «a»».

In practice, such decisions probably are more frequent than normative definitions. Normative definitions are more useful if there is little hope of curtailing the use of «a», or if the members of the reference class at issue are much more complicated or «difficult» from the standpoint of the intended users and receivers.

By means of chains of normative definitions, we may increase the level of preciseness step-by-step. On the other hand, the many regulations may cause such a burden on memory, and interfere to such a degree with established habits, that it does not pay to introduce the chain, but rather to use the long and complicated expression (the definiens).

By «definitional (or stipulated) interpretation» of a normative defini-

tion or part thereof, we shall here mean an interpretation that is decided on by the sender of the normative definition. The purpose is to ensure that certain ambiguities of the formulation of the normative definition shall not be sources of misinterpretation. By definitional interpretations the sender tries to convey less ambiguously what he intends. They are, therefore, proposed precisizations of the original formulation.

Instead of writing out a complicated normative definition in full, one may proceed as follows:

First, «b» is used as definiens expression, and «a» as definiendum in a point-of-departure formulation. Then «b» or a part of «b» is made more precise, and it is decided that a definite interpretation b_1 of «b» or a part of «b» shall be used as synonymous with «b». b_1 is then called a definitional interpretation of «b». This process may be continued as far as necessary for the given purpose. Instead of writing out a normative definition in the shape of a single very complicated sentence, one uses a step-by-step procedure, which enables the reader to grasp the essential features before entering into stipulations concerning nuances of meaning.

IV.8. How Normative Definitions Are Criticized or Appraised: «True by Definition»

In this section we shall briefly discuss what kinds of arguments play a role in discussions centering on normative definitions among persons who agree that the sentences have the character of normative definitions or a closely similar character.³

Normative definitions do not directly express assertions (propositions). If I decide to use «a» for «b», the decision does not express any assertion, but we may on the basis of psychological and sociological hypotheses infer with varying degrees of certainty that I accept certain assertions.

Among these assertions we may note the following: «I have stronger reasons for deciding to use «a» for «b» than for not doing so.» However, the sentence expressing the decision is not synonymous with this assertion. I might conceivably add, «In spite of the strong reasons to make the decision, I have not made it. I decide not to use «a» for «b». On the other hand, I might issue a report that yesterday I decided to use «a» for «b», but without reason. Some obscure motive must have compelled me, or perhaps no

IV. DEFINITOID STATEMENTS

motive (?)». It is legitimate in a discussion in which I have decided to use «a» for «b» to presuppose that I have found more reason to do so than not to do so, but this does not warrant the hypothesis that I, by the decision, have meant the same as to assert the existence of any reasons to do so.

Similar reflections may be made in relation to proposals and commands. In preceding sections we have already mentioned that we presuppose by definition that the person who announces the decision that «a» should be used for «b» affirms the practical possibility of a situation in relation to which the decision is relevant. We also presuppose by definition that the person believes it practically possible to carry the decision into effect and believes he will make an effort to do so. Such convictions, however, do not imply assertions synonymous with a decision, proposal, or command.

This conclusion has a tendency to turn analytical if the words «decision», «proposal», and «command» are precized as indicated here, but they need not turn analytical for all plausible interpretations.

A normative definition cannot without grave danger of misinterpretation be said to be true, false, confirmed, disconfirmed, certain, uncertain, probable, improbable, etc., in the senses in which these words are used as cognitive weight expressions. The distinction is in general harmony with strong trends in analytical philosophy.

For reasons not described in this work, I think it is misleading to characterize normative definitions as valid or invalid in certain senses in which «ought» norms may be said to be valid («You ought to abstain from murder», for example).

The words most convenient to sum up (rather unprecisely) what speaks in favor of a normative definition seem to me to be the following: a decision to use «a» for «b» is wise, justified, well-motivated, adequately motivated, well-founded, and so on. Speaking in disfavor of a normative definition, we may say that it is unwise, arbitrary, premature, and so forth.

The arguments *pro et contra* may more specifically and precisely be expressed by formulations of the following kind: «the decision leads, if carried out, to a convenient terminology, a sign-economical terminology, a usage fairly precise and fairly well in accordance with previous usage». On the other hand, it may be criticized as unnecessarily clumsy, hair-splitting, or inconvenient.

The proposals may be judged good or bad for similar reasons. The com-

IV.8. How Normative Definitions Are Criticized or Appraised

mands may be judged justified by their results, if carried out, by the probability that they will be obeyed, and by their authority to command.

In hypothetico-deductive systems, formulations (or assertions) are sometimes said to «follow from the definitions», by which it is presumably meant that they are derivable from normative definitions. To be justifiable within the terminology here adopted, this manner of speaking must be a shorthand for the longer formulation «derivable from assertions that describe the immediate intended result of the decision, if carried out». Thus, if I decide that «a» shall be used for «b», then the sentence ««a» is strictly synonymous with «b»» describes the intended result of the decision. But it cannot be «derived», in any strictly logical sense of this word, from a decision.

A shorthand terminology is used in this work. The theorems are often said to be «derivable» from normative definitions.

What is the relation between sentences called «analytic» and the N-definitions?

From the previous characterizations it follows that *normative definitions are not analytical sentences* in any plausible interpretation of «analytic». If a decision to use «a» for «b» is *presupposed to have been carried out*, «a is b» is analytical in some plausible senses. Normative definitions create possibilities of analytical sentences, but are not themselves analytical. The distinction is of importance to the understanding of the hypothetical character of proofs that *presuppose* normative definitions to have been carried out.

Somewhat untechnically and as a starting-point precization, «the formation «a» is a b» is analytically true» can be taken as synonymous with «‘a’ is a characteristic of ‘b’, or is a conjunction of such characteristics».

If the designation «b» is N-defined in the following way:

$$\text{Syn (bP}_1\text{S}_1, \text{aP}_2\text{S}_2) \quad (\text{Ann})$$

then the sentence «a is a b» is *according to the decision* synonymous with «a is an a» or «b is a b», provided the requirements expressed by the symbols P_1, S_1, P_2, S_2 are satisfied. That is to say, *if* «a is a b» is used according to the decision, *then* it is synonymous with the sentences mentioned. Whether it is so used, is hypothetical. If it is, then any attempt at confirmation will be a success, if «confirmation» is N-defined in such a way that «a is an a» is confirmable. The process of testing «a is a» might conceivably (in concrete

IV. DEFINITOID STATEMENTS

cases) turn out to give disconfirmation, insofar as the confirmation is not derivable from 'a is a' and concepts of confirmation.

That a sentence or designation is used according to a decision is an (empirical) hypothesis, more or less difficult to test, and more or less likely to be confirmed or disconfirmed. In the case of highly precise mathematical language, the confirmations may be regarded as extremely strong. In the case of philosophical literature, it is different.

If we wish to give «confirm» a meaning that makes «a is a» confirmable, the confirmation will not lead to other types of observations than those of sentences expressing decisions and the interpretations of those sentences. The process of confirmation will be confined to what I shall call elementary analysis.

This is, so far as I can see, what can be said in favor of calling sentences of the type «a is a» analytically true. If they are confirmed, they are analytically true—one may say. Thus, the hypothesis that a sentence is analytically true is not itself analytically true.

Maybe ««a» is analytically true or false» could profitably be N-defined as follows: «the confirmation or disconfirmation of a requires only identification and comparison of connotations of designations or formulations contained in «a»».

The identification and comparison of connotations can be carried out only by means of hypotheses about interpretations (usage), because the connotations are probably N-defined by sentences expressing N-definitions. The various interpretations of these sentences must therefore be investigated.

The old and rather imprecise dictum that analytical sentences should have some kind of «absolute truth» or some other kind of extreme cognitive weight different from that of synthetic sentences, seems to be based on a belief in the unlimited reliability of hypotheses of elementary analysis. Sometimes investigations of what is in accordance with a decision, proposal, or command are trivial and easy; but sometimes they are not, as we shall see in later chapters.

If there are no (explicit) normative definitions covering the use of «a» and «b», the confirmation of «a is a b» must be done on the basis of hypotheses about how to interpret «a» and «b». For some plausible interpretations, «a is a b» may turn out strictly synonymous with «a is an a». When other plausible interpretations are used, this result may not follow.

If the precization «a is an a» is used, the sentence «a is a b» can be said to be analytical for at least one plausible interpretation. By this would merely be meant that, for at least one plausible interpretation, the test of the sentences is confined to identification and comparison of connotations.

IV.9. Descriptive Definitions of Usage

In chapter 1, section 2, the question was raised, What, if anything at all, is intended by synonymy sentences? Considering the variety of such sentences and the ambiguity and vagueness of their constituent words, there is no reason to expect all of them to have interesting semantic characteristics in common. In this work they are studied because they sometimes are intended to express important kinds of hypotheses about various subject matters. References, more or less explicit and painstaking, were subjected to a preliminary analysis in chapter 1, section 2. The general structure of such hypotheses about sameness of meaning has been suggested by the symbol Syn (aM_1bM_2).

A considerable number of hypotheses are referred to in technical literature as «definitions». Many of these so-called «definitions» may be plausibly interpreted to state that certain expressions mean the same as certain others. Certain other sentences called «definitions», which do not seem to have such a kind of intended meaning or which are difficult to classify, acquire a meaning of interest or an increased testability if (arbitrarily) interpreted in this way.

To remind ourselves that the structure of synonymy hypotheses is relevant to all such «definitions», we here introduce a new designation of synonymy hypotheses: «descriptive definition (of usage)». When we wish to stress that these hypotheses are (by definition) expressed by synonymy sentences, we shall use the name «descriptive synonymic definitions».

- (1) A sentence shall in this work be called a «sentence expressing a descriptive definition of usage» if, and only if, it states that a certain expression, the so-called definiendum expression, is used synonymously with a certain other expression, the so-called definiens expression, within a certain class of situations, the so-called intended field of validity of the descriptive definition of usage.

IV. DEFINITOID STATEMENTS

Some definitional interpretations and comments:

1. Definitional interpretation 1 concerning normative definitions (page 167) also applies here.
2. Interpretation 2 (page 167), *mutatis mutandis*.
3. The expression «if it states that» is used for «if it is intended to assert that or is interpreted to assert that».
4. The term «intended field of application» is reserved for the marginal reference of the definiendum. By «intended field of validity of the descriptive definition of usage» we shall mean the field that the hypothesis is intended to cover, indicated explicitly or implicitly by marginal references relating to both definiens and definiendum.
5. Interpretation 5 (page 167), *mutatis mutandis*.
6. According to (1), a descriptive definition must be a sentence. The expression «sentence» in (1) may, however, be replaced by «something».
7. In the point-of-departure formulation, it is said about the definiendum expression that it «is used» in a certain way «within a certain class of situations». If the class is a future class, «is used» must be interpreted as «will be used». Analogous changes may have to be carried out in relation to other kinds of fields at issue. The expression «is used» shall refer to *all* occurrences within the field intended. If there are subfields in which the synonymity relation is considered not to hold, a new hypothesis is formed in which the old, broad-field designation is replaced by a narrower one that does not include the disconfirming subfield.
8. The field of application may be as narrow as a single historical occurrence. As a maximum it may have no limitation. If the field is said to cover all occurrences up to the date of issue of the definition, we shall call it a *complete definition of usage*; otherwise, special. This is just another name for ‘complete synonymity’, introduced in chapter 1, page 38. If many fields are distinguished, the definition will be called complete, provided the fields together include all occurrences up to the date of issue. If different definiens expressions are listed, as in the case of complex normative definitions, but no delimitations of fields are designated or implicitly implied, then

there is no descriptive definition. This stipulation rules out most dictionary definitions.

Consider the following example. In a paper by O. Haas and G. G. Simpson (1946: 329) one reads, «In the titles of Wilson (1944, 1945) «homomorphs» obviously means «homeomorphs», as understood in the present paper».

Hypothesis: Haas and Simpson intend to give a descriptive definition of usage. Definiendum expression: «homomorphs». Intended field of application relative to definiendum: the two occurrences of «homomorphs» in the titles of two articles by A. E. Wilson, «Rafinesquina and its homomorphs Öpikina and Öpikinella» and «Strophomena and its homomorphs Trigrammaria and Microtrypa». Definiens expression: «homeomorphs». Marginal reference to definiens: all occurrences of «homeomorphs» in the article «Analysis of some phylogenetic terms.»

In the same article by Haas and Simpson it is said on page 342 that «Dacqué devoted an entire section of his book of 1935 (pp. 226–251) to «Zeitformenbildung, Zeitbaustile, Zeitsignaturen» (---), using all three of these terms indiscriminately».

Hypothesis: The last part of the quotation is by Haas and Simpson intended to express a complex descriptive definition. Definiendum expressions: «Zeitformenbildung», «Zeitbaustile», «Zeitsignaturen». Definiens expressions: the same three expressions. Intended field of validity: the text on pages 226–51 of Edgar Dacqué's *Organische Morphologie und Paläontologie*. Haas and Simpson may, according to this hypothesis, be said to assert the promiscuous synonymy of all occurrences of three terms within a certain class of occurrences.

What should by definition be meant by the formulation «The two formulations «a» and «b» express the same descriptive definition of usage (the same synonymy hypothesis)»? There is too much room for divergent interpretations to abstain from a definitional interpretation of this point. Those stipulations that have been made for criteria of identity of normative definitions (section 5) will be proposed to hold for descriptive definitions, *mutatis mutandis*.

The shorter expression «Ds-definition» will often be used for «descriptive definition» and «Ds-formulation» for «formulation of a descriptive definition».

IV. DEFINITOID STATEMENTS

IV.10. To Give Descriptive Definitions of Usage and Then to Make More Precise

In the normative definition of descriptive definitions of usage, there is no requirement as regards level of preciseness. It plays, however, a prominent role in the evaluations of descriptive definitions, a role more basic than in the case of normative definitions.

For reasons similar to those mentioned in connection with normative definitions, we find it inconvenient to put the requirement of preciseness into the N-definition of Ds-definition. We do not wish to have a normative definition that makes «Ds-definition» nearly synonymous with «good descriptive definition».

Suppose a Ds-definition

$$(1) \text{Syn}(aP_1S_1, bP_2S_2)$$

is asserted. It is asserted with a certain public as receivers. This public consists of the asserter himself, or it may, for example, be a vast and indefinite crowd of prospective readers of an elementary textbook. Let us call the asserter P_3 , the intended receiver(s) P_4 , the situation of asserting S_3 , and that of receiving S_4 . In asserting (1), the asserter normally hopes that a second hypothesis, (2), is tenable:

$$(2) \text{Syn}[\text{Syn}(aP_1S_1, bP_2S_2)P_3S_3, \text{Syn}(aP_1S_1, bP_2S_2)P_4S_4]$$

That is, he hopes, that the whole hypothesis (1) is understood in the sense intended by the asserter. Moreover, the information conveyed by (1) to the receivers is normally of interest only if what «a» expresses for P_1 in S_1 , is less known than what «b» expresses for P_2 in S_2 (or vice versa). The asserter tries to explain the sense of «a» by «b». This makes it necessary that there be agreement as regards the interpretation of «b» for P_2 in S_2 . This is a necessary condition of (2), and may be formulated thus:

$$(3) \text{Syn}(bP_2S_2, bP_3S_3) \& \text{Syn}(bP_2S_2, bP_4S_4) \\ \& \text{Syn}(bP_3S_3, bP_4S_4)$$

This condition is the basis of norms that «definiens should be unequivocal, precise, unambiguous» and so forth. These, or somewhat weaker re-

IV.11. Definitions as Condensed Characterizations (Real Definitions)

quirements, must necessarily be satisfied if (1) is to express a Ds-definition purporting to let somebody better understand what is meant by «a».

No similar requirement is necessary or desirable as regards the definiendum expression «a».

Very often, definiens in good and interesting Ds- or N-definitions is a precisization of definiendum for the announcer and for the receivers. Establishment of hypotheses as to preciseness is also usually an important preliminary to the announcements of normative definitions. On the other hand, there is no need for definiens to be more precise than definiendum in any situation or for any person. Neither normative nor Ds-definitions are in general able to fulfill the function of precisizations, nor can precisizations generally do the work of N- or Ds-definitions.

IV.11. Definitions as Condensed Characterizations (Real Definitions)

The terms «normative definition» and «descriptive definition» are designations of concepts considered to be of central importance in empirical semantics. A considerable number of sentences or assertions called «definitions» in technical literature can be fruitfully classed in terms of «normative definition» and «descriptive definition». There are, on the other hand, a considerable number of such sentences that cannot be thus handled, and that seem to have certain common characteristics of interest. They are in this section classified under the heading of «definition as condensed characterization». It does not seem possible to construct fruitful concepts that reflect the intended claim of the definitions as condensed characterizations. Very often, the sentences thus classed seem to have been produced with low definiteness of intention, or the claims made have been practically untestable.

Because of these shortcomings, the term «definition as condensed characterization» is not used to class any sentence asserting something in this work.

- (1) A formulation or system of formulations shall in this work be called a «definition as condensed characterization» if, and only if, it is intended to express a certain kind of description covering all denotata of a concept explicitly or implicitly assumed to have already been introduced. If it does not cover all denotata, but only

IV. DEFINITOID STATEMENTS

some, it will be called «too narrow». The description should be intended to satisfy the following three requirements:

1. There should be no other class of things to which exactly the same description applies.
2. Other specific or common characteristics of the denotata may be inferred (logically or in the form of well-established empirical hypotheses) from the characteristics mentioned in the description.
3. The description as a whole should be short, preferably consisting of only one sentence.

As mentioned above, the term introduced will be used to facilitate classification of sentences called «definitions» in philosophical and other technical literature.

Classifications made on the basis of the above N-definition must necessarily be rather rough because of the usual lack of information about the intentions of the authors concerned, and because of their usually rather limited level of definiteness of intention. Such sentences are also of importance to the understanding of dictionary and encyclopedia «definitions». These sentences seem mostly to function as condensed characterizations. This does not always prevent them, however, from having additional functions of a more exact character. They may, for example, suggest both an N-definition and a condensed characterization.

The designation used for the denotata will be called the *definiendum*; the description will be called the *definiens* of the definition as condensed characterization.

As another name for «definition as condensed characterization» we shall use «real definition», abbreviated as «R-definition».

IV.12. Definitions as Condensed Characterizations Exemplified

The world's patent claims compose a formidable collection of definitions as condensed characterizations. The highly developed art of both codification in this field is of both practical and theoretical interest to the theorist of interpretation. It is to be hoped that the future will bring more cooperation between patent drafters and theorists of interpretation. Preliminary contacts have convinced both groups of its fruitfulness.

The rules for describing inventions are (at least in the United States) such that they assume invention to have something called an «essence» or «a real nature». It is the real nature or the essence of the inventions that is to be described in a patent claim. This terminology may be a remnant of old textbook accounts of «definition». It has had profound effects on the practice of patent-claim drafting. According to patent law, the «definition must be equivalent or commensurate with that which is defined, it must be applicable to all the individuals included in the concept and to nothing else» (Stringham 1930: 17). That is, *given* the denotata, one must look for common and specific characteristics. But are the denotata «given», in the sense of being surveyable or observable? The quoted rule brings up a difficulty at once. It assumes that we already know all the members of the group to be defined (*ibid.*, p. 18). One has to take into account all possible denotata fabricated in the future (as long as the patent will be valid). The group of objects that is to be given a definition as condensed characterization is in the case of inventions largely unknown. The characterization will be hypothetical. What Stringham says about «definitions» holds good of real definitions (in our terminology):

The requirement of shortness applies to real definitions of inventions. A claim with about 240 words was in the Brick case characterized as «long and formidable». (*Ibid.*, p. 224)

Example 1. The following definiens formulation appears in a real definition of the nature of an invention: «[a]n incandescent electric lamp having a filament of tungsten or other refractory metal of large diameter or cross section or of concentrated form and a gas or vapor of low heat conductivity at relatively high pressure, the combination being such that the filament may be raised to a much higher temperature than is practicable in a vacuum lamp without prohibitive vaporization or deterioration or excessive shortening of useful life, substantially as set forth». The patent was, in this case, held invalid by a British court of first instance «and by the Court of Appeal on the ground that the word «large» was not sufficiently clear in its meaning to define the ambit of the monopoly ---». The House of Lords, however, «held that there was no valid objection to the claim ---» (Terrell 1927: 118).

Example 2. For a simpler example of a real definition, we may turn to the glossary in Woodruff's *Animal Biology* (1932: 473), where we find «Abio-

IV. DEFINITOID STATEMENTS

genesis. The abandoned idea that living matter may arise at the present time from non-living, without the influence of the former». The expression «abandoned» suggests that the sentence has a function more closely related to a real definition than to a normative or descriptive definition. If the expression were included in a normative definition of abiogenesis, the idea referred to could not be maintained as a hypothesis. This impossibility is scarcely intended by the author of the «definition», and it contrasts with usage. If the expression were left out, the quotation might well be classed as a descriptive definition or a description of a normative one.

Example 3. «Binomial nomenclature. The accepted scientific method of designating organisms by two Latin or Latinized words, the first indicating the genus and the other the species» (Woodruff 1932: 474). The expression «accepted scientific» is here analogous to the expression «abandoned» in the first quoted sentence, and the formulation is presumably classifiable as a real definition. If it were changed to «Method of designating --- species. The method is accepted in science», the first sentence could plausibly be interpreted as functioning partly as a description of a normative definition of the decision subclass. Woodruff scarcely tries to make a decision on terminology all by himself, but wishes to describe a decision made long ago by other biologists. He might also wish to describe the use of the expression «binomial nomenclature» in biological literature. In that case the sentence also would function as a descriptive definition.

Example 4. «Chlorophyll. The characteristic green colouring matter of plants, through which photosynthesis takes place» (ibid., p. 476). Here, «chlorophyll» is «defined» by a causal relation. It is improbable that Woodruff would call a substance «chlorophyll» that did not have approximately the same chemical structure, even if it should be discovered that this substance is the one «through which photosynthesis takes place», and not the one formerly believed. G. J. Peirce, in his *Physiology of Plants* (1926: 57), speaks of «chlorophyll pigments»—chlorophyll, carotin, and so forth. That Woodruff would not in a normative or descriptive formulation include reference to the very important function of the pigments often called chlorophyll, is suggested by the following passage: «--- the expression «green plant» does not refer specifically to the colour of a plant (---), but to the fact that there is present a complex pigment functionally similar to chlorophyll by virtue of which the plant is a constructive agent in nature».

(Woodruff 1932: 34). Especially the expression «functionally similar» suggests that Woodruff would not descriptively define «chlorophyll» by its physiological function, but as a subclass of pigments. We are for this and other reasons inclined to classify the sentence as a real formulation. Students more easily remember «the essence» of chlorophyll by means of a short, condensed sentence.

A number of short utterances about «democracy» and allied terms are probably classifiable as real definitions:

Example 5. «Das Wesen der demokratischen Verfassung ist ---, dass sie ohne Rücksicht auf gesellschaftliche Unterschiede alle Erwachsenen oder doch alle männlichen Erwachsenen zur Teilnahme und der Handhabung der öffentlichen Gewalt beruft» (Sering 1917: 42).

Example 6. «Demokratie (---) ist Identität vom Herrscher und Beherrschten, Regierenden und Regierten, Befehlenden und Gehorchenden» (Schmitt, 1965: 234).

We have defined real definitions in relation to denotata of a class rather than in relation to connotation,⁴ because some or all of the essential characteristics may be underivable from the characteristics included in the connotation. The underivable characteristics, for example, «abandoned opinion», «accepted opinion», «something through which something takes place», in the quoted examples, account for the main difference between formulations of real definitions and formulations of normative and descriptive definitions.

Just like Ds-formulations, the R-formulations express hypotheses (theories), but whereas the former are about usage, the latter may concern anything—for example, the behavior of certain kinds of organisms in certain situations.

The R-formulations are general theories about denotata; the Ds-formulations may be particular theories about usage within narrow types of situations.

An R-formulation as defined in this work is responsible for every single denotatum. If 1,000 denotata are studied and one is left out, there is a chance that it will have a character sufficiently different to warrant a change in the R-formulation. Or, one might split the connotation in two and let number 1,001 fall under a separate connotation.

In textbooks, encyclopedias, summaries, and technical glossaries, one finds numerous formulations that could be classed as R-formulations if it

IV. DEFINITOID STATEMENTS

were not probable that the authors had no pretensions of giving a definition covering *all* denotata or of giving only perfectly specific characterizations. More stress is laid on ease of understanding and on short, vivid expression. The formulations are mostly strong popularizations, which function to give preliminary and approximate knowledge.

Knowledge of denotata will always be limited, even if all of them are investigated separately. For most purposes, it is sufficient to form R-formulations on the basis of samples selected according to statistical sampling methods.

IV.13. Sentences with Complex Definitional Function

Let us consider a sentence of a kind commonly found in textbooks of the exact sciences.

(1) «A point moving with a variable velocity, relative to any frame, is said to have an acceleration relative to that frame.»

The sentence is taken from A. E. H. Love's, *Theoretical Mechanics* (1897: 33). In the preface, Love states that the «purpose of this book is didactic, it is meant to set before students an account of the principles of Mechanics, which shall be as precise as possible, and which shall be in accordance with modern ideas». The exposition is built on a small number of concepts; that of acceleration is based on that of velocity and other concepts.

From the preface and the expression «is said to» and from other sources of information, I infer that (1) is a reproduction of a sentence produced beforehand, or that Love believes that the sentence, to him and to competent readers, expresses the same as what was expressed previously by the same or by other sentences by himself or by other authors. The sentence may in that case be said to be intended to function as a description of a normative definition put forth before Love produced sentence (1). Maybe this is the sole intended function; maybe it is only one of the intended functions.

If the sole intended function of (1) is to describe a normative definition, it might be formulated as «According to the stipulations of modern terminology, a point moving with a variable velocity, relative to any frame, is said to have an acceleration relative to that frame».

In the literature antedating 1897, there are sentences in textbooks that

resemble (1) more or less. It is scarcely possible, however, to speak of one and the same concept of 'acceleration' being introduced by all authors, particularly because the concept is often based on concepts of 'velocity' and 'movement', which show rather obvious internal differences.

Why has Love selected (1) among the many possibilities? I think we can infer that whatever his motives are, the appearance of (1) to the exclusion of other possibilities indicates, among other things, that he has *decided* to use the word as indicated by (1) in *his* book, and that he expects his readers to test the statements of the book on the basis of the terminology adopted. There is no compulsion for anybody to adhere strictly to a particular usage. It is, therefore, usually of some importance for an author of textbooks to indicate which usage will be adhered to in the book at issue.

Suppose a student using Love's textbook interprets «acceleration», when it occurs later in that book, as synonymous with «positive acceleration». We cannot say that this usage is in conflict with (1), or that the student uses the term wrongly or has misconceived (1), or that he does not adhere to the introduced terminology—if (1) is solely considered to be a *description* of a particular existent usage. More correctly, we could make such reproaches under those circumstances, but not then on the basis that the student should have taken the appearance of (1) as a symptom that Love is an *advocate* of using «acceleration» in accordance with the use indicated by (1). Later occurrences of «acceleration» in Love's book seem to be in accordance with what he states «is said».

It seems contrary to scientific method to rely on guesses or inferences of the above kind, especially in mechanics, where students are trained to construct proofs in which it is crucial that terms like «acceleration» be used in fairly uniform ways in accordance with explicit decisions common to a group («conventions of terminology»).

If (1) is to function solely as a description of a particular usage, the text ought to include a normative definition, or at least a forecast of how the term «acceleration» is going to be used. Even if the normative definition in that case did not differ from previously produced normative definitions of «acceleration», it would be of importance. The text might in that case be formulated as «Most theorists of mechanics have decided to use «acceleration» in the following way: «the point, x, has an acceleration relative to the frame F» shall mean the same as «x is moving with a variable velocity

IV. DEFINITOID STATEMENTS

relative to the frame F». I have decided to use the expression in the same way».

Now, if an author wrote in this way, he would probably be considered pedantic. Why not rely on the fact that readers will take it for granted that an author by (1) *also intends* to communicate that he has decided to use the word as indicated by (1)?

As far as I can see, (1) can plausibly be interpreted as expressing *both* a description of previous use or of a previous normative definition (with the textbook as intended field of application) *and* a decision to adhere to a certain usage.

The expression «is said to» as it occurs in (1) seems occasionally to be used descriptively and with reference to the past use of others or the future use of the author; occasionally it seems to be used in a normative definition; and occasionally, I think, it can most plausibly be interpreted as expressing a combination. I guess that (1) is an instance of such a mixed function.

If we introduce uniform interpretations permitting a sentence like (1) to have mixed functions in the sense indicated, we need not guess or infer normative definitions that are important in proofs of theorems. We can in the proofs use the argument «According to the terminology decided on by (1), we can derive this --- from that ---». We need not every time say, «If we decide to use «acceleration» in the sense described in (1), then ---».

It would seem, then, that the concept of ‘sentences with mixed descriptive and decisional (or commanding) function’ is fruitful, and that many sentences can plausibly be interpreted as being intended to satisfy such a complex function. Particularly, discussions in the exact sciences seem to be based on the assumption that sentences are thus interpreted—and with success: there is little room for misconceptions.

Let us consider another example. In Shull’s textbook *Heredity* (1926: 116), we find the following passage:

(2) «*Multiple Factors*. Multiple factors are two or more pairs of genes having similar and cumulative, though not necessarily equal, effects.»

Shull himself classed the sentence as a «definition» (in a sense not explained), as is seen from the next sentence of the text, «An example that has been thoroughly worked out will make the definition clear».

The term «multiple factor» is introduced in the textbook by means of (2). In the sentence following the last citation above, a second instance of the expression occurs, «Nilsson-Ehle of Sweden found that two varieties of wheat, one having reddish-brown, the other white grains, owe their colour differences to multiple factors».

Probably very few analysts would deny that we are justified in deriving, (although even fewer would agree that we ought to make the inference) from (2) that «multiple factor» as used in the second occurrence of this expression is intended by Shull to be synonymous with «two or more pairs of genes having similar and cumulative, though not necessarily equal, effects».

What, in that case, is intended by (2)? Suppose that (2) is not an explanation of multiple factor or 'multiple factor', but rather of «multiple factor». That is, a short expression «multiple factor» is, maybe, introduced and implicitly declared to be used or to have been used synonymously with a longer one. Or perhaps a convention (group decision) is duplicated, reproduced, or described. Or a usage is predicted. Or, perhaps, the intention is to express a kind of N-definition.

More plausible interpretations besides those mentioned are found by looking for mixed functions. As examples, we might mention the following groups of sentences as possibly expressing the same as Shull intended by (2):

(2a) The expression «multiple factor» shall according to a terminological convention be used as synonymous with «two or more pairs of genes having similar and cumulative, though not necessarily equal, effects», and it is my decision to join that convention.

This formulation is a description of various decisions. Another possibility is:

(2b) The expression «multiple factor» is used as a synonym for «two or more ---, effects»; this shall also be its use in this work.

The sentence (2b) has a mixed function. It functions to express a descriptive definition of usage and to express an N-definition.

Explicitly, we shall N-define «sentence with complex definitional function» as follows.

(3) ««a» is a sentence with complex definitional function» shall in this work mean the same as «One and the same occurrence a_1 is intended to express the same as the conjunction of two or more sentences of the following kinds:

IV. DEFINITOID STATEMENTS

1. sentence expressing a normative definition;
2. sentence expressing a descriptive definition;
3. sentence expressing a real definition.»

It is open to doubt whether there exist sentences with complex definitional functions involving real definitions. If a sentence at a definite place in a text is meant, among other things, to express a descriptive definition of usage, does it occasionally happen that it also is meant to express a real definition? This is a psychological question, and not easily answered. If there are strong symptoms that a sentence has both a Ds- and an R-definitional function, we expect that there would also be symptoms of confusion and low definiteness of intention on the author's part.

IV.14. Concepts of Synonymity and Concepts of Definition

Many sentences called «definitions» or said to «express definitions» fall within the domain of synonymity hypotheses and related subjects. It has been our main object to stress this connection and to base the treatment of such sentences on the methods introduced in preceding chapters. Thus, the main purpose of this chapter has been to show how the treatment of some of the sentences called «definitions» can be covered by the system of terms suggested in chapters 1 and 2.

This purpose necessitates that those subgroups of sentences called «definitions» that fall under the domain of synonymity hypotheses of some sort, be distinguished from similar kinds. Thus, we were forced to take up normative definitions and real definitions.

As seen from (1), page 166, and from other normative definitions, the treatment of these new kinds of sentences is to a considerable degree mixed up with terms and hypotheses of the preceding chapters. This gives us an additional reason to undertake analysis of sentences occasionally called «definitions», even if they are not synonymous with synonymity hypotheses of some sort.

On the other hand, we have not tried to survey the main directions of precization of the word «definition». There are a great number of occurrences of this word that we have not felt compelled to discuss or to make the basis of any concepts.

In concluding this chapter, I should like to mention some relations between «synonymy» as used outside this work and normative definitions.

Suppose two expressions «a» and «b» are introduced by two normative definitions in which «a» and «b» function as definienda, and in which the definientia expressions and the expressions of intended field of application are identical. In such a case there is a tendency to treat «a» and «b» as synonymous. It is usually very difficult to decide whether «synonymy» is in that case used to designate a concept 'synonymy' from which it is *derivable* that «a» and «b» are synonymous if introduced by identical definientia; whether it is used to designate a concept 'synonymy' that makes it *empirically plausible or expectable* that «a» and «b» are synonymous if N-defined in the same way; or whether neither of those alternatives is realized, for example, because of lack of definiteness of intention.

If «synonymy» is used according to the first alternative, then it is irrelevant to the question of synonymy whether «a» and «b» are used as decided upon. If «a» and «b» are used very differently because the decision, command, or proposal is completely disregarded, this does not prevent «a» and «b» from being synonymous if the existence of a normative definition is enough. Such a consequence is undesirable because it would entail a great number of changes in our terminology. It is convenient for us to let the difference between followed and nonfollowed normative definitions stand out clearly in our terminology. In chapter 7, the term «N-concepts» of synonymy is used to cover the cases in which an N-definition can prove synonymy.

Of greater interest is a sufficient but not necessary criterion of synonymy introduced as follows:

- (1) If the normative definition

$$\text{Syn}(aP_iS_j, bP_mS_n) \quad (\text{Ann})$$

 is strictly followed, then

$$\text{Syn}(aP_iS_j, bP_mS_n)$$

Sentence (1) turns into a positively analytical sentence if «strictly followed» is precized operationally in such a way that the synonymy concept symbolized by Syn in the normative definition is used as the criterion of its being followed and if Syn in the last line of (1) also symbolizes that concept.

Sentence (1) turns into a synthetic theorem if a different synonymy

IV. DEFINITOID STATEMENTS

concept from that introduced in the second line is introduced in the fourth line of (1). In the following we decide that (1) should be interpreted (*per definitionem*) in such a way that only one kind of synonymy concept is used in the two symbolizations of (1).

IV.15. Predictional Theories About the Use of an Expression

Suppose «a» (for example, «democracy», «be careful!», or «it rains») is an accepted vehicle of communication between people of a certain language community, and suppose it is asked, What does «a» mean when used by the people (or a definite person) of the community? The answer that «a» means 'b', but that in fact no person of the community ever intends to express 'b' by «a», would usually be considered awkward. There is, however, important research concerning the use of «a» within the community, and it is not concerned with the *intended* meaning of expressions in use. In the terminology of some authors, the research may nevertheless concern «meaning».

One may ask, Under which conditions will a definite person or group of persons produce use instances of «a»? If «a» is a declarative sentence, one may ask, Under which circumstances will «a» be asserted (by certain persons, or generally)? Or, one may be less interested in the events of production and ask, Where can «a» be expected to be found?

This kind of question ignores questions about intended meaning. It is analogous to natural-science questions of the following kinds: Under which conditions does a thunderstorm develop? Under which conditions will oxygen and hydrogen mixed together combine and form water? Where can uranium be expected to occur? The same kind of question is asked about psychological and social phenomena: Under which conditions are revolutions likely? Under which conditions will babies react with anxiety toward dogs? It makes no essential difference methodologically whether the questions are posed about past events. One may ask, Under which conditions have babies (until now) reacted with anxiety toward dogs?

Answers are attempted in a fairly general, simple, and testable form. The crux of the matter is the possibility of understanding, predicting, and explaining the phenomena on the basis of certain units of information.

Suppose the following problem is given: under which conditions will sentences of the form «x is of national interest» be asserted by U.S. govern-

ment officials? The problem does not necessarily lead to an investigation of what such officials *intend* to express by sentences of the form «x is of national interest» (cf. Beard 1934).

What is demanded is a formula or theory such that the past occurrences of sentences of the quoted form are explained and future occurrences are successfully predicted.

Sometimes, as in the case of Beard's explanations, it is to be expected that the senders would deny—and maybe justly—that the *intended* meaning is something closely similar to the formula used as explanans⁵ expressions in proposed explanations or predictional formulas.

Many sentences that are called «definitions», or are proclaimed to state the «meaning» of terms or sentences, may plausibly be interpreted as sentences expressing *theories* about *conditions* of occurrence of expressions or classes of expressions. They will be called *predictional theories*. They will be distinguished from theories about senders' intended meanings or receivers' interpretations. The predictional theories may occasionally contain references to sentences expressing assertions about users' intentions, but need not do so.

The importance of distinguishing predictional theories from descriptive definitions about intended use lies therein; the former often are formulated as if they were identical with the latter, but they are mostly untenable thus conceived.

Voltaire may, for example, say that mankind uses the term «truth» for mistakes and illusions, and he may thereby create a furor of indignation. He possibly meant that so many opinions put forth as «truths» are mistaken, that the best way to predict occurrences of «truth» is to consider whether the opinion in question is a mistake. If it is a mistake, he predicts, it will be called a «truth». He has scarcely intended that people call something a «truth» when they *intend to convey to listeners* that they consider it a mistake.

Mussolini declared that «Démocratie, c'est le gouvernement qui donne ou cherche à donner au peuple l'illusion d'être souverain» (quoted in le Bon 1931: 291). Mussolini scarcely entertained the opinion that those using «démocratie» intended this meaning. Studying what have been called «democracies», Mussolini was, perhaps, willing to assert that the use of the term follows the regularity expressed by his definiens expression.

IV. DEFINITOID STATEMENTS

In *Twentieth Century Sociology* (Gurvitch and Moore 1946: 71), Howard Becker writes, ««[m]ysticism» to many of this gentry [positivists], simply means «not orthodox Watson behaviorism»». Maybe Becker means that what these people intend to express by the term «mysticism» is a concept 'not orthodox Watson behaviorism'. It is more likely, however, that he is constructing a theory about the conditions under which they react with the characterization «mysticism». Possibly he means that if they are confronted with something that is not orthodox Watson behaviorism (in the terminology of the analyst), they are apt to class it under the heading «mysticism».

Predictional theories about the use of a concept designation are tested primarily by analysis of those things that users point out as denotata. Thus, if a predictional theory about «truth» says that «truth» is a name for «*was dem Denken das grösste Gefühl von Kraft gibt*», then the test will be a psychological one. One would have to select a fair sample of meanings and investigate the feelings of those who apply the name. It would be necessary to lay down criteria of intensity of feeling of strength and to correlate use occurrences with the findings.

If one permits oneself to use an old, rather ambiguous phrase, the predictional theories about expressions concern the symptomatic, not symbolic, functions of signs.

In practice, hypotheses about intended meanings will largely have to be tested on the basis of regularities in use of the terms whose meanings are under discussion. These regularities are also the basis of predictional theories. Nevertheless, the two kinds of hypotheses differ. Some observations are highly relevant to the one, but not to the other, and instances of confirmation of the one may not be instances of confirmation of the other.

Elementary Analysis

A. Description of Synonymity and Ambiguity Hypotheses and of Simple Definitions

V.1. Description of Hypotheses Expressed by Synonymity and Ambiguity Sentences

As a first kind of elementary analysis, we shall consider attempts to describe hypotheses assumed to be expressed by synonymity sentences. As analysts we read synonymity sentences and, in most cases, make the tentative assumption that they were produced with assertive intent. We are sometimes interested in finding out something about what they assert, that is, what the sender intended when sending a definite instance of a synonymity sentence, what a certain synonymity sentence mostly has been intended to express, how certain receivers have interpreted the sentence and so on. To avoid looking for exact meanings where there are none, we may feel compelled to undertake an investigation of definiteness of intention.

The attempts to describe hypotheses expressed by synonymity sentences do not presuppose that the analyst has his own concept of synonymity. He investigates events, processes, and states of affairs connected with sentences in which the term «synonymity» and other terms of the synonymity sentences occur, but he need not use such terms himself. His description will probably contain the word. He is engaged in activities of interpretation, and his account will probably contain metaoccurrences, but not necessarily use occurrences, of the terms interpreted.

As a matter of fact, in chapter 7 we shall, as analysts, sometimes use expressions such as «synonymous with» and «means the same as», but with-

V. ELEMENTARY ANALYSIS

out going into details about what we mean by them. In the present chapter, however, we limit ourselves to offering rather imprecise definiens expressions: by «synonymity» between sentences we shall mean in this chapter «identity of cognitive meaning, sameness of assertive content».

A particular synonymity *sentence* may be described as one belonging to the skeletal form «--- means the same as . . .», or as containing certain marginal references, or as being written in the English language, and so on. Descriptions and quotations of synonymity sentences are not of sufficient interest to warrant detailed study.

Quite otherwise is the situation that confronts those who try to describe synonymity *hypotheses* fairly accurately. A hypothesis cannot be quoted: only the sentences supposed to express the hypothesis can be quoted. The description of the contents may, of course, be made in terms of its author, but this presupposes the validity of complicated interpersonal synonymity assumptions. Often the context of the original expression of the hypothesis is of first-rate importance.

In this chapter we are concerned with descriptions of hypotheses. The hypotheses do not assert the hypotheses described. The descriptions are, on the other hand, themselves assertions. Consider, for example, the description «Bryce makes the hypothesis that «democracy» always means the same as «the rule of the many»». The assertion intended by the analyst may be untenable, or we may find that it is ambiguous, vague, scarcely testable, and so forth. Doing this, we are engaged in activities here subsumed under the heading «elementary analysis». We are not necessarily interested in the question of whether, as Bryce asserts, «democracy» *is* synonymous with «the rule of the many», whatever that may mean.

By «description of a hypothesis», we shall mean a description of its cognitive content, not its history. The history may be of primary importance for the understanding of its contents as assertion or system of assertions, but the historical account is not what we look for.

A description of a hypothesis may not (in our terminology) be a complete description. Let us compare descriptions of hypotheses to descriptions of demands. A description of children's demand for food may be more or less complete. It may consist only of statements of the kind, «Children's demand for food is more insistent than that of octogenarians». Analogously, a description of certain synonymity hypotheses may consist merely

of the following kind of statement: «the hypothesis has a cognitive meaning such that it takes years to test it». We may say that the hypothesis Crew intends by his words «--- in the time of Newton, density and specific gravity were employed as synonymous» is such that it asserts the substitutability of the two terms in texts written during the lifetime of Newton. Or, the analyst may describe it as a hypothesis that has a content such that «x has the density y» and «x has the specific gravity y» are equipollent. Neither of these contributions to a description of Crew's hypothesis may be intended to furnish a complete description.

Descriptions of hypotheses and descriptions of demands have in common that they describe something not directly observable. Demands, needs, drives are inferred entities (constructs, intervening variables, models, fictions), just as hypotheses are. Their methodological status is highly controversial. The change from formulations of hypotheses to the hypotheses themselves (expressed by the formulation) resembles to some degree the change from talking about certain food behaviors to talking about demand for food.

If a hypothesis can be reduced to the form $p \& q$, where p expresses a synonymity hypothesis and q expresses some other kind of hypothesis, « $p \& q$ » will be said to express a hypothesis that *implies* a synonymity hypothesis. Interpretative sentences—for example, ««a» means b»—are often of that kind. If a hypothesis does not imply a synonymity hypothesis, but (in the opinion of the analyst) presupposes one to be valid, we shall say that such a hypothesis is *involved* or *assumed*.

In this chapter, not only explicit synonymity hypotheses, but also implied, involved, or assumed ones are described.

Perhaps some readers find it unjustified to devote a whole chapter to techniques of describing hypotheses that conceivably might be expressed by synonymity sentences. This critical attitude owes perhaps to an insufficiently clear distinction between sentences and what may be expressed by sentences. The distinction requires separation of a formulation of a hypothesis from the hypothesis as an assertion. Elementary analysis aims at description of hypotheses as assertions, not just as references to formulations found in texts already at hand.

Hypotheses are more or less completely formulated, and the formulations are more or less precise. If a hypothesis belongs to a system such as

theoretical physics, the whole system contributes to the meaning of its formulation. This, and requirements of communication, makes it impossible to point at a certain sentence or series of sentences and to say with reason, «*There* is the hypothesis expressed in complete detail».

In psychology a great number of names suggest hypotheses—for example, «the sign-gestalt theory of learning»—but if we ask psychologists to say just what the theory asserts, there are no standard formulations and there are considerable differences of opinion. Thus, the task of describing hypotheses is difficult in the exact as well as in the less exact sciences. Hypotheses and opinions in general are, once more, inferred entities, the existence of which cannot be «shown» except by giving reasons for or against the assumption of their existence based on observations of verbal and non-verbal behavior. Descriptions of opinions necessarily involve more or less uncertain interpretations, and good descriptions of them *generally* involve precization of the formulations traditionally used to express the opinions.

The analyst who takes up the task of distinguishing between hypotheses that do and do not involve hypotheses of synonymy, and the task of constructing fairly precise formulations of their contents, encounters a host of difficulties. These are attributable, among other things, to:

1. limited definiteness of intention by the authors of synonymy sentences; lack of attention (on the part of the producers) to assertions involving hypotheses about synonymities; lack of explanations;
2. vagueness and ambiguity of marginal references;
3. extreme shortness of expressions functioning as formulations of synonymy hypotheses (much is implicit and barely hinted at);
4. extreme variability of terminology and richness of near-synonyms among the expressions of such hypotheses;
5. tendency to overlook auxiliary hypotheses necessary to subsume any hypothesis under the heading «hypothesis of synonymy»;
6. absence of independence between these and other factors, which often act together and create an almost inexhaustible complexity of texture.

Let us consider some examples of sentences that, for some plausible interpretations, express or involve descriptions of synonymy hypotheses or announcements.

Haas and Simpson (1946: 333) state in their painstaking elementary analysis of certain biological terms that «Bourne --- considers parallelism a mere synonym of homoplasy ---». The analysts, Haas and Simpson, describe something that they probably intend to be a hypothesis adhered to by Bourne. The hypothesis is expressed in the vocabulary of the analysts; Bourne is not quoted. Possibly Haas and Simpson intend to describe a synonymity hypothesis.

In the same paper, Haas and Simpson state that «--- Buckman ---, in discussing parallelism and homeomorphy, defines the former as «the tendency of different genetic stocks to pass, quite independently, through similar phases of development»» (ibid., p. 326). Here, a definiens expression is simply quoted, but the semiotic relation is indicated in terms used (not quoted) by the analysts, that is, by Haas and Simpson. The terms used by the analysts to convey to readers the kind of assertion or announcement made by Buckman are «defines --- as». A reader of Haas and Simpson's paper cannot be sure that Buckman in his paper used the expression «defines --- as».¹ In other words, Haas and Simpson attempt to describe in their own terms an assertion or announcement intended by Buckman. What Buckman may have intended by the expression «defines --- as», if he used the term «define» at all, is a question without relevance to what Haas and Simpson intend to express by «define».

Speaking about «the geometrical meaning «of homology», corresponding members of similar figures being «homologous»», Haas and Simpson say, «It may, ---, be doubted whether Owen, when defining --- «homologue» as «The same organ in different animals under every variety of form and function», had this geometrical meaning in mind» (ibid., p. 320).

Several interpretations of this quotation from Haas and Simpson's paper are of interest. Here it will be interpreted in only one direction. They may have intended to tell readers that a certain hypothesis may be doubted as to its validity, namely the hypothesis that Owen by the definiens expression «the same organ in different animals under every variety of form and function» (as occurring on page 379 of one of his works) intended to express a connotation similar to the above-mentioned geometrical meaning. Implied in this critical remark by Haas and Simpson is the hypothesis that Owen intended to define «homologue» in the sense in which Haas and Simpson use the term «define». Thus, a description of something is im-

V. ELEMENTARY ANALYSIS

plied, which possibly is conceived to be a synonymy hypothesis or announcement made by Owen.

Elementary analysis may show—or make plausible—that certain synonymy sentences express under certain conditions a kind of hypothesis having definite characteristics a, b, c. The analyst may be tempted to ask, What sentences other than synonymy sentences (in the accepted sense) express at least occasionally a kind of hypothesis with characteristics a, b, c? Roughly, having found out about certain cognitive meanings represented by a (rather arbitrarily delimited) sample of sentences, one is interested in finding other sentences expressing the same or very similar cognitive meanings. We shall include under elementary analysis an investigation concerning which sentences other than synonymy sentences sometimes or mostly express hypotheses of the kinds that synonymy sentences sometimes or mostly express.

A further main task of elementary analysis consists in attempts to describe hypotheses assumed expressed by heteronymy, ambiguity, and interpretative sentences.

Descriptions of interpretative hypotheses meet the same difficulties as those of synonymy and ambiguity hypotheses, and the difficulties are often aggravated by even less adequate marginal references than for the synonymy hypotheses. The definiens expression is often used quite naively, without consideration of how it will be interpreted by the public.

Of special importance are descriptions of attempts to make lists of interpretations and of debates between advocates of different lists.

The foregoing tasks are all concerned with *descriptions of metaoccurrences* of expressions and sentences. The aim is to describe (and classify) what seems to be expressed by declarative sentences containing metaoccurrences.

Synonymy announcements as well as normative synonymic and interpretative definitions are also subjected to attempts at accurate description, mostly involving precization. To make and establish such descriptions is a further task of elementary analysis as here conceived. Whereas the assertive function of sentences seems to be fairly homogeneous and not too difficult to describe, the many variations of normative statements (imperatives, proposals, decisions, and so on) add to the complexity of the analyst's task.

The foregoing examples of descriptions that possibly are intended to be descriptions of synonymy hypotheses or announcements might be re-

peated here as examples of descriptions that possibly are intended to be descriptions of normative or descriptive interpretative definitions. When, for instance, an analyst P says something like «Q defines a as b», it is not easy to figure out what P is describing, owing to the ambiguity of the term «defines» and the expression «a as b».

V.2. Interpretation of Definitoid Sentences in General

Let us use the term «definitoid sentence» for any sentence or system of sentences that is preliminarily assumed to express a normative, descriptive, or real definition. The analyst is confronted with the task of attempting a classification based on hypotheses about which are the most plausible interpretations of the sentences. Of the enormous number of definitoid sentences found in technical literature, scarcely one-fourth are such that one may, without further scrutiny, establish whether they express something closely similar to normative, descriptive, or real definitions, or combinations, or do not express anything closely similar to these structures. The reader is invited to inspect published lists of «definitions», for example, those of Ries (1931b: 208ff.) and Seidel (1935: 114ff.) concerning 'sentence'. Very few members of these collections are easy to classify. The analysis of definitoid sentences has therefore a broad field of difficult application.

A large number of the eighty-three «*definitionen*» quoted by Seidel have the form «a is b», a form that has for centuries caused confusion. As an example we may cite «Die Sätze sind die kleinsten in der betreffenden Redeumgebung grammatisch befriedigten (sinnvollen) Einheiten, in die eine sprachlich korrekte Rede zerlegt werden kann» (Ahlman 1883). A number of the «definitions» are not intended to be normative, descriptive, or real definitions—for example, «Wenn wir auf das Verhältnis zweier Begriffe Acht haben, so entstehen Sätze» (Crusius). A quotation from Husserl belongs to those very few that can be classified with a fair degree of certainty: «[d]och scheint es passender --- die Einheit von Sinn und thetischem Charakter als Satz zu bezeichnen». This is probably meant as something like a normative interpretative definition.

Despite the importance of distinguishing between normative and descriptive statements, and the frequent advice in that direction in philo-

V. ELEMENTARY ANALYSIS

sophical and scientific literature, such distinctions are often neglected and with serious consequences. It is seldom that the distinction is drawn as explicitly as in the following statement by Bertrand Russell (1931): «I shall adopt the arbitrary convention that «convince» is to mean «to satisfy by rational argument», for example, by adducing evidence in support of the proposed conclusion. I shall confine the use of the word «persuasion» to mean «to bring about the acceptance of a conclusion by methods other than that of offering grounds for rational conviction». Most people would, I think, say that «persuasion» covers what I have called «conviction». I have admitted that this is a correct usage, but it is inconvenient for my purpose.» Russell here clearly intends to give something closely similar to what we call a normative definition;² he does not intend to give a descriptive definition.

The distinction, which to us seems nearly as important, between a descriptive definition (a hypothesis of synonymy between expressions) and a real definition (a condensed characterization of things denoted) is more often neglected, even among analytical philosophers. One of the reasons that the distinction is so important is that a real definition can be tested as regards its tenability only if the definiendum has a well-established nonformulated usage, or if the sender of the real definition offers a normative definition by means of which he explains how he intends to use the definiendum. Very often, a proponent of a real definition unjustifiably presumes that others use the definiendum expression as he does. However, the real definition cannot perform both the task of giving a meaning to an expression, a connotation, and the task of giving a nonanalytical theory about the denotata delimited by the connotation of the expression.

In the following, we shall pay attention to a series of difficulties confronting those who try painstakingly to describe the hypotheses or announcements that we call normative, descriptive, and real definitions. In some cases it is sufficient to use rough descriptions and descriptions that are far from complete descriptions or reformulations, but we are interested in cases in which rough indications are not considered adequate. In cases of extensive debates about definitoid sentences or phrases (for example, «of the people, by the people, for the people»), the inadequacy of the usual levels of exactness (or rather, inexactness) is shown by frequent pseudoagreements and disagreements and other symptoms of confusion.

Examples of incomplete characterizations of normative, descriptive, or real definitions:

«Carnap defines 'value judgment' in such a way that value judgments by definition are excluded from all kinds of empirical test; ---» (Ofstad 1951: 44).

By this sentence, Ofstad says something about the (normative) definition that Carnap attaches to the term «value judgment». No complete description is aimed at. How Carnap formulates his definition is not revealed; this is not a description or quotation of a definitional sentence produced by Carnap, but a hypothesis about an expressed announcement.

A further example of incomplete description is found in the second part of the following quotation: «If «analogy» is to retain --- any technical meaning in comparative anatomy and phylogeny, it can be but the one implying function or use. This is the meaning given to this term by Owen (1843) and maintained in the biological sciences, though with certain qualifications, ever since.» (Haas and Simpson 1946: 324). Haas and Simpson seem to refer to a normative definition proposed by Owen. About that normative definition they assert that it implies function or use. It is not asserted that Owen proposes to use «analogy» for «function or use». The information intended is partial, not equivalent with a complete description.

V.3. Some Distinctions Exemplified and Tabulated

Suppose we aim at a description of normative and descriptive definitions, and choose definitions of «denote» and «denotation» in classical logic as our subject matter. As a preliminary step we shall have to state rather precisely what we mean by «classical logic», a term used somewhat loosely in contemporary philosophy. When this is done, we have specified a class of contexts to be investigated. Our conclusions will be hypotheses with direct bearing on this and only this class of contexts. We shall be responsible for descriptive characteristics of *every* formulation expressing a normative or descriptive definition within this field of intended application, but for none outside it.

Suppose the term «classical logic» is defined in such a way that the following formulation from *Formal Logic* (Bennett and Baylis 1939: 232) is included: «[a] term that signifies a class property is said to denote each of the members of the class determined by that property».

V. ELEMENTARY ANALYSIS

Our business as analysts would then be to find out whether the formulation, or a part of it, expresses an N- or Ds-, or N- and Ds-formulation relating to «denote», and, if necessary, to reformulate the supposed definition so as to make it more precise (receiver-precise) for the readers of the analyst's description, that is, the readers of this section.³

The analyst has to determine whether the cited formulation is an N- or Ds-formulation or both. It seems probable to us that Bennett and Baylis intend to *describe* the use of the word «denote» in certain contexts—for example, that they intend to give a Ds-formulation, a description of existing usage, by means of an expression that they hope readers will interpret as they do, or very similarly. On the other hand, they themselves use the word «denote» on their own, and we, therefore, and for other reasons, guess that they also intend to give a normative formulation. The analyst with scientific pretensions must carefully take into consideration what can be said for and against hypotheses about what the authors in this case intend. As an argument for the hypothesis that a normative definition is involved, I think it could be mentioned that Bennett and Baylis probably are aware of other uses of the word «denote», besides the one they mention, even within logic.

If we conclude that the cited formulation of Bennett and Baylis is an instance of a Ds- or N- and Ds-formulation within our field of investigation, other things have to be determined, for example, the limits of the context that Bennett and Baylis intend to cover by their definition (its intended field of application). Without a hypothesis on the limits of this context, we cannot make statements of the kind «In this instance Bennett and Baylis do not follow or use their definition» or «In this case Bennett and Baylis do follow or use their definition». It may be that they intend to use «denote» in the sense defined in all possible contexts, but it may also be that they do not pretend to use the word in that manner outside their texts on logic or outside discussions with persons presumed to have read the texts. They may not feel responsible for their usage in family quarrels or newspaper articles, or in texts of literary criticism.

From the quotation itself, very little may be inferred. «A term that signifies a class property *is said* to denote ---». The expression «is said» is fairly representative of the kind of words used to express synonymity hypotheses and also normative definitions. We shall leave the issue. It is our aim in this

chapter to show the kind of assumptions made even in the most elementary kind of analysis, not to perform an analysis.

The analyst will have to pay attention to the restrictive phrase «that signifies a class property». Do Bennett and Baylis intend to say that «denote» connotes something different according to whether a denoting term signifies a class property or signifies something else? Do they intend to give a general Ds- or N- and Ds-formulation relating to «x (a term) denotes ---», or only a special, restricted formulation referring to «x (a term signifying a class property) denotes ---»? We shall have to decide for or against these kinds of hypotheses about the field of intended application. If we do not, we cannot easily judge whether Bennett and Baylis express a tenable or an untenable hypothesis. There is probably in the authors' texts material relevant to the hypothesis that they intend a rather general definition. If such material is found and used, the analyst's description of Bennett and Baylis's hypothesis probably ought to consist of expressions that will be interpreted as the analyst interprets the hypothesis, even though the receivers are not familiar with all of Bennett and Baylis's texts. Their formulation is then too tied up with their texts in general to allow any isolation from those texts.

A description of a definition as here understood is not simply a collection of quotations, but an exposition of definitions formulated in such a way that readers of the exposition interpret the formulations as closely as possible to the interpretation of the sender of the definitions. The analyst is a kind of mediator, taking care of the necessary reformulations.

In the particular instance mentioned above, the reader of the description of definitions cannot be supposed to know exactly how Bennett and Baylis intend to delimit the class of terms said to signify a class property. He may not, for example, be able to interpret the expression «each of the members of the class» in the manner that Bennett and Baylis do. They themselves discuss that point, and the material thus available may profitably be used to reformulate their formulation to make it more receiver-precise to the readers of the description.

So far, I have tried to direct attention to the distinctions among the following:

1. The context F investigated directly by an analyst. This is *included* in the defined field of application of the analyst's description. In the ex-

V. ELEMENTARY ANALYSIS

ample considered, we limited ourselves to an examination of a single passage in a book by Bennett and Baylis, and only superficially took into account the rest of that work. The passage corresponds to what is called «Formulation group No. X within the field» in figure 1.

2. The field E intended to be covered by an ordered description of definitions based on the investigation. This corresponds to what is called «The field E to be covered by the description» in Figure 1.

The analyst's description has the character of a hypothesis, and its intended field of application E may be much greater than the directly investigated context F. In the example under consideration, the field E is the whole of classical logic.

3. The context intended to be covered by an author of an N-, Ds-, or N- and Ds-definition. This is the field within which the sender of an N-definition intends to use the definiendum as a synonym of the definiens, or the field within which the author of a Ds-formulation claims that the definiendum is used synonymously with the definiens. If it is a question of a definition with double aspects, it may be necessary to distinguish between two fields of application, that of the expressed normative definition and that of the descriptive definition.

Further, we wish to stress some implications of the rather trivial difference between a definition and a formulation of a definition. If an analyst finds a formulation that he thinks can be interpreted so as to express a definition, his interpretation may be based on extensive study of the particular terminology found in the context of the formulation. If, now, the analyst limits himself to quoting the formulation in his description, it may be practically impossible for the readers of that description to arrive at the same interpretation. It will be necessary for the analyst to rewrite the definition in search of a formulation that will induce his readers to interpret it in the best possible harmony with the intention of the author. We therefore stress the possible difference between an original formulation—an object studied by the analyst—and the formulation of the analyst in his description of definitions.

If, for example, we compare various axiomatizations of a field, there may be formulations of definitions that are identical in all systems, in spite

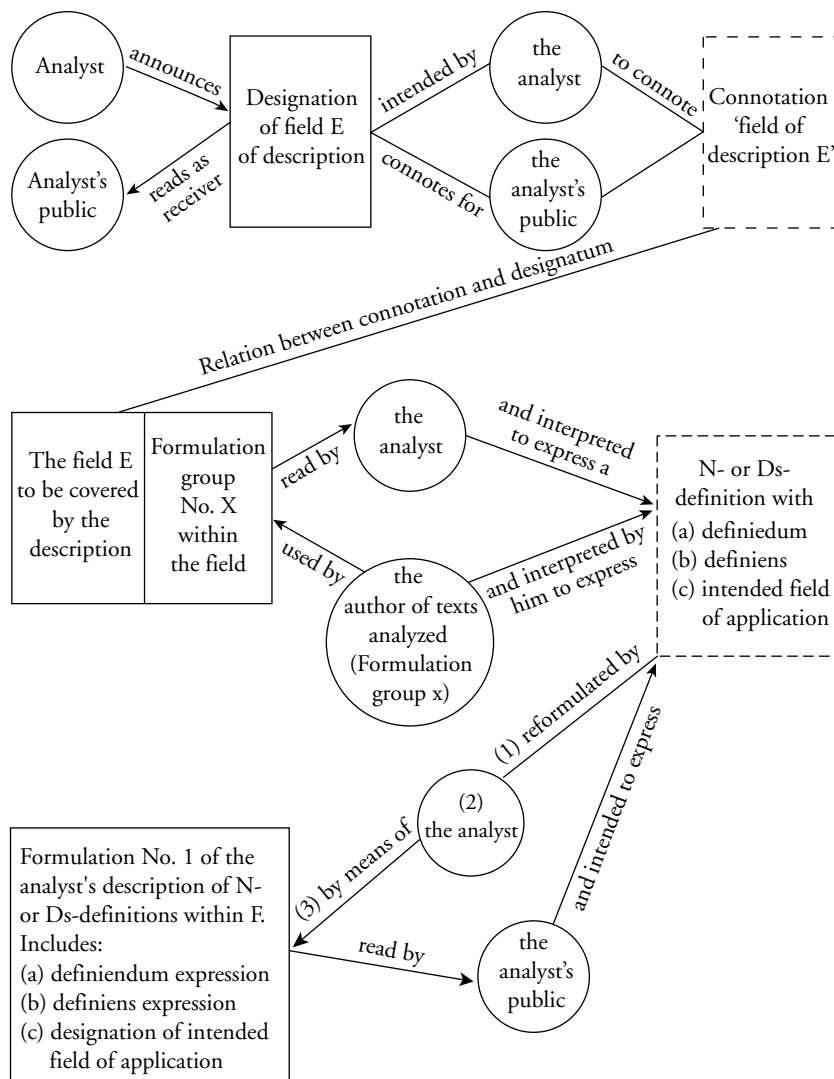


Figure 1. Some items involved in the construction and use of a description of normative or descriptive definitions. Persons involved are indicated by circles; expressions, by rectangles; and significations (connotations), by rectangles with dashed lines.

V. ELEMENTARY ANALYSIS

of vast differences in their meanings. These are given by rules or by «implicit definitions». For example, there may be said to be many propositions in Russell and Whitehead's *Principia Mathematica* that are «propositions» in other systems (e.g., in Lewis's system of strict implication). An analyst describing the «propositions» should not, however, use such an ambiguous formulation, but should limit himself to asserting that some *expressions* of «propositions» are the same. His description of the propositions involved may show them to be very different.

If the original formulation cannot be interpreted so as to indicate its intended range of application, the analyst has to make hypotheses as to this range. Such hypotheses we take as parts of the description of definitions.

In the description we expect, therefore, to arrive at formulations expressing all three components of the definition: the definiens, definiendum, and intended range of application (see figure 1).

Let us suppose that we decide to describe and test hypotheses of an analyst who publishes a description of certain N- or Ds-definitions. We may in that capacity call ourselves «meta-analysts». As part of the material available for our investigation, we have the analyst himself, if he is alive and agrees to be observed. We have, further, his designation of field of description E, and the formulation group x within the field F of investigation. If we are lucky, we shall also have at our disposal the author of the texts analyzed. Finally, we are, as meta-analysts, able to point out a formulation No. 1 of the analyst's description of normative or descriptive definitions within F.

Other items illustrated in figure 1 are usually less readily observed. What is the analyst's public? It can hardly be certain definite people at definite moments. We may as meta-analysts find out that certain people without doubt should be classed as denotata of the 'public', and that these people seem to have interpreted the designation of field E as has the analyst, but normally we cannot say more than that we have provided some instances of confirmation of a hypothesis of the analyst.

The so-called «field E of description» can be delimited only by testing interpersonal synonymy hypotheses. As meta-analysts, we shall have to investigate the interpersonal synonymy of the field designation for the analyst and his public. If we strongly confirm the interpersonal synonymy, the hypothesis illustrated by making the analyst and his public share one

and the same connotation is strongly confirmed. If it is not confirmed, we shall have put two connotations into the picture, as shown in figure 2.

The field E to be covered by the description may in some cases be a small collection of formulations readily surveyed, or the field may be «given» only as the designatum of a designation such as «classical logical texts». In the latter case, the field has no definite boundaries. Different investigators will almost certainly delimit the field in different ways, and, probably, no investigator will try to survey the whole field (as interpreted by him). Thus, the neatly drawn rectangle representing field E (figure 1) must not be taken as a symbol of one definite, easily surveyable observational field, such as, for example, a small collection of formulations arranged in an easily surveyable list.

As for the dotted rectangle that symbolizes what formulation group x expresses, we can say about it what has already been said in reference to the connotation 'field E of description'.

We stress that most of the items illustrated are more or less unsurveyable and unobservable (in many plausible senses of that word). They are intervening variables, in the terminology of E. C. Tolman and C. L. Hull.

If the description is not perfect in all respects—an expression I use with low definiteness of intention—some of the areas illustrated in figure 2 will have to be duplicated. The whole illustration will then be seen as if out of focus.

In figure 1 there are two designations of the intended field of description E. This is to remind us of the difficulties that arise from the habit of repeating at various intervals what field should be investigated and thereby using different designations. If the analyst selects one field as the main one and the «standard» from which interpretations should proceed, then there is no complication. Figure 2 is adapted to the case of two designations on equal footing. As an analogy, consider a standard meterstick in Paris and in New York, both defining the length of one meter.

The designations of field intended to be covered (for example, «classical logic», «works of Bryce on democracy», «William James on truth», «common usage») give rise, according to the illustration, to three different interpretations, one by the analyst and two by the public. The latter may be classed as misinterpretations. The fields E corresponding to the different interpretations are different, and the formulation x picked out as «defini-

toid» occurs within the field as conceived by the analyst, but not within those conceived by the public.

The boundaries of the connotation are shown as incomplete to remind us of the indefiniteness of intention always present. The effect of the indefiniteness is symbolized by the incomplete boundary of the field E.

It is usually difficult or impossible to single out one definite formulation as the one expressing the definition. There may be several sentences and often not in a series, but with irrelevant ones in between. In the illustration two parts of the formulation group correspond to how the analyst has delimited the so-called «formulation group x». According to the interpretation of the author of the text analyzed, there is a third part of group x, which it is necessary to take into account. It belongs to the formulation of a definition, and without it, parts one and two do not express any of his definitions. The definition expressed by the formulation group x is conceived somewhat differently by the author and the analyst. The most plausible interpretation, according to the analyst, gives descriptive definition No. 1; a less plausible interpretation, in his opinion, gives descriptive definition No. 3. The author of the text entertains the opinion that his intention most probably was that of expressing descriptive definition No. 3. He thinks it less probable that descriptive definition No. 2 covers his intention, and does not think No. 1 gives a plausible interpretation at all.

As meta-analysts, we find that the analyst has in his description given two reformulations of the definition he believed the author tried to express. The reformulations are synonymous for the analyst, both expressing descriptive definition No. 1. To the public, the analyst's versions express two other definitions: No. 2, which is a plausible, but not the most plausible, interpretation of the author according to his own hypothesis, and No. 4, which is considered plausible neither by the analyst nor by the author.

In elementary analysis there are a host of complications not hinted at in figure 2. Thus, we have in our illustration assumed that we can directly compare connotations (and assertions), whereas we shall, in practice, have to compare precizations, using complicated procedures. Even if the analyst, his public, the author, and the meta-analyst all are available and willing to discuss what they mean by their talk, we shall meet great and methodologically important difficulties when trying to confirm or weaken the hypo-

V. ELEMENTARY ANALYSIS

thetical descriptions of the analyst. Elementary analysis is «elementary» in the sense of «propaedeutic», not in the sense of «easy».

The intention of the author of a definition may fall short in many ways that may profitably be distinguished. Let us suppose he intends to give a formulation of a definition—a *convenient* and *fruitful* normative definition or a tenable (correct) descriptive definition. It is not the business of a describer of definitions to judge whether the underlying intention has been successfully realized. Whether the formulation is fruitful or not fruitful, the author in both cases intends to give a formulation of a *definition*, and to describe the intended definition is in both cases the job of elementary analysis. Sometimes, however, even the intention itself may not be complete. The author's formulation may, for example, lack any indication—explicit or implicit—of range of application, because of lack of definiteness of intention. The description of definitions has to take into account such shortcomings and indicate what the minimum criteria are for stating that something is presented as a realization of an intention to give a definition. As analysts of definitoid formulations, we are concerned with the basic characteristics of any normative, descriptive, or real definition, fruitful or not fruitful, tenable or not tenable.

V.4. Illustrations of Elementary Analysis

Illustration 1

A field of description of practical importance is found in the definitoid statements that appear in traffic regulations. A vast number of cases before the courts are decided on the basis of normative definitions of «blind curve», «emergency vehicle», and other such terms. Let us suppose that we are interested in material relevant to a description of that field, and that we find as part of the text material to be investigated the pamphlet *Traffic Regulations*, by police commissioner L. I. Valentine. Section 1 opens with a series of «definitions»:

The following terms when used in these regulations unless otherwise expressly stated, or unless the context or subject matter otherwise requires, shall be deemed to mean and include:

1. «Authorized emergency vehicle» shall mean vehicles of the fire department (fire patrol), police vehicles, ambulances, and emergency vehicles

of federal, state, or municipal departments or public service corporations and such other vehicles as are designated or authorized by the Police Commissioner.

2. «Bicycle» shall include any vehicle consisting of an arrangement of a combination of two wheels, one following the other, supported by a frame, propelled by the feet acting on pedals.
3. «Blind curve» means a curve on a two-way street where the straight-away of the street is not visible from the center line of the street at the start of the curve.

We use these formulations as a first instance of easily describable normative definitions because they are unusually explicit. So far I can see, without having made any empirical investigations, they offer unusually strong precisations of some rather ambiguous and vague expressions. At the same time, they do not invoke technical vocabulary beyond the scope of the majority of the intended public. However, even such recommendable specimens of N-definitions offer some problems for the elementary analyst.

The quoted passage can be divided into an introductory note and three numbered formulations. The introductory note says something about the three terms referred to in the numbered formulations. It says that each of them «shall be deemed to mean and include:». In the numbered formulations, however, somewhat different expressions are used: «shall mean», «shall include», and «means». A reformulation seems warranted. It is to be noted, however, that it is based on highly uncertain assumptions.

When used in these regulations unless otherwise expressly stated, or unless the context or subject matter otherwise requires:

1. «Authorized emergency vehicle» shall mean vehicles (etc.).
2. «Bicycle» shall mean any vehicle (etc.).
3. «Blind curve» shall mean a curve (etc.).

In this reformulation adapted to quite another public, namely, the readers of this section, the talk about what is included is left out on the assumption that its only function was to remind us that if «a» means b, all things denoted by «b», for example, all things included, are denoted by «a».

A sentence of the kind ««Bicycle» means and includes any vehicle of kind A», is of some interest, because «means» requires that «any vehicle of kind A» express a connotation (concept), whereas «includes» requires that «any vehicle of kind A» designate certain things. Reformulating in more

V. ELEMENTARY ANALYSIS

pedantic terminology, we might say, ««Bicycle» means ‘vehicle of kind A’, and the class of bicycles includes the class of vehicles of kind A». When the sentence is thus formulated, the second member of the conjunction follows from the first, but not vice versa.

From the nature and character of the *Traffic Regulations* booklet, it seems justified to assert that the following expressions (among others) are intended as complete synonyms within that booklet: «shall be deemed to mean and include», «shall mean», «shall include», «means», «shall mean and include», «means and includes».

All these expressions occur within the text covering the first fourteen definitions. The ninth definition has no expression of that kind:

«9. «Designated parking space». That part of any street designated by competent authority ---.»

On the basis of previous sentences, it is justifiable to assume that the pair of sentences in item 9 are intended to be synonymous with «The expression «designated parking place» shall mean that part of any street designated by competent authority ---».

Taken in isolation, an expression such as «includes» might be expected to refer to a part of the denotation of something, not the connotation. The introductory statement («The following terms ---»), which covers all subsequent definitions, and a similarity among the various formulations designated by 1, 2, 3, etc., suggests that connotation rather than denotation is referred to. This conclusion is not weakened by inspection of the definiens formulation of item 2. The definiens is such that it may well represent a connotation rather than a denotation. We stress, however, that decisions on questions of interpretation are shaky and largely intuitive.

The three sentences are reformulated as normative interpretative sentences («a» shall mean b) rather than as normative synonymy sentences («a» shall mean the same as «b»).

In the present case, it is rather certain that the interpretative sentences express something that involves the corresponding synonymy sentences, and *possibly* assert something more. The additional content might be formed as an answer to the question ««a» shall mean the same as «b», but what does «b» mean?» In this work we do not try to formulate what answer is implied in the interpretative sentence other than the rather trivial one:

«b». That is, we treat the interpretative sentence (1) as if it were synonymous with the synonymity sentence (2):

- (1) «a» shall mean b.
- (2) «a» shall mean the same as «b», and «b» means b.

If the analyst, in his description of Valentine's N-definitions, uses Valentine's own definiens expressions, he limits himself to a quotation of them. More interesting is the case in which the analyst tries to convey to his public the intended meaning of the definiens expressions by using other words. The analyst may, for example, say, «By «vehicles of the fire department (fire patrol)» Valentine means the same as «any vehicle of the fire department that is a fire patrol vehicle». He evidently does not intend to include all vehicles belonging to the fire department». If the analyst uses his own words, it is convenient for him to give his description as a «that» formulation: «Valentine announces *that* «---» shall mean . . .».

Illustration 2

Here, our field of description is definitoid statements about «patent claim» in technical literature. Our field of investigation is a statement from Alf B. Bryn's *Patentloven* (Patent Law 1938).

On page 38 Bryn mentions some «words which are permanently used in connection with patent cases, and which in this connection have their special connotation ---». One of these designations is «patent claim».

Patent claim[:] A definition that comes at the end of the patent description and indicates what the applicant holds to be his invention and wishes to have patented.

Let us suppose that the analyst aims at a description of Ds-formulations of «patent claim». In this case he may write:

Context in which the instance is found:	A. B. Bryn, Patent Law, page 39
Definiendum expression:	patent claim
Definiens expression:	(as quoted above)
Range of application:	patent cases

It is to be expected that the expression «patent cases» will create some difficulties in practice. As a designation of the intended field of validity, it

V. ELEMENTARY ANALYSIS

will probably give rise to conflicting interpretations among those who are not trained jurists. If the description of Ds-formulations is written for a public with poor knowledge of law, it would presumably be desirable to give a simple definition of «patent cases», as understood by Bryn, or to substitute for «patent cases» the definiens expression in such a popularizing definition. We mention this to give an example of how the analyst's description may differ from the original.

It is presumably Bryn's aim to help students of law get a better hold on the use of the expression «patent claim» than they would by just reading instances of use. He may be said to aim at a delimitation, and therefore a precization, of a term that is used too loosely in ordinary life to serve a student of law. He probably does not aim at a precization among professional patent lawyers. For that aim, the definiens is probably too elementary.

V.5. Levels of Preciseness of Descriptions of Definitoid Statements

In an article called «The developing science of democracy», reprinted in *The Analysis of Political Behavior* (1951), H. D. Lasswell offers a definitoid group of formulations that has the important function of delimiting the definitional subject matter of a prospective science—the science of democracy. The formulations are found on page 8 and run as follows:

A democratic government can be defined in terms of shared power, a democratic society in terms of shared deference (power, respect, insight) or shared influence (deference, safety, income). What are the limits within which sharing may vary in a government or in a society that is entitled to be called «democratic»? With respect to power, we may stipulate that a democratic government authorizes majority participation in the making of important decisions. The majority may express itself directly (direct legislation) or indirectly (elected officials). The majority must participate actively (a large majority—let us specify a two-thirds majority—must qualify to vote and take part in elections). The overwhelming majority must be free of intimidation. Moreover, they must have confidence in their capacity to exert effective control over decisions, whether or not they vote on any given occasion. Communities are democratic in the degree to which they conform to them.

The formulation cluster contains two definiendum expressions, «democratic government» and «democratic society». A third expression,

«democratic community», probably intended to be synonymous with the second, can be constructed on the basis of the last sentence quoted. The definiens expressions are relatively complicated and need rearrangement if we, as analysts, wish to compare them with those of other authors. It is of much greater importance, however, to know exactly what kind of statement Lasswell wishes to make.

Does he intend to give a normative definition? The book is not a textbook, and Lasswell is not the kind of person likely to try to coerce his readers in matters of terminology. We may, therefore, safely assume that he does not intend to express an imperative. More plausibly, he tries to express decisions: decisions to use «democratic government» and «democratic society» as indicated by the definiens expressions within his own works. Given that the whole article is rather programmatic and favors the development of a science of vast complexity, the definition is probably also to be interpreted as the announcement of a proposal directed to competent readers.

Does Lasswell intend to give a descriptive definition? There are strong reasons to believe that the definitoid sentences are not intended to be entirely normative. The word «democracy» is used numerous times in the article before the quoted passage. There is no indication that Lasswell intends to introduce a usage that differs from what he expected readers to understand by the word «democracy» before page 8. On the other hand, there are indications that some parts of the quotation are meant to be less descriptive than others. He says «let us specify a two-thirds majority», but he does not say «let us by «democracy» mean ---».

Someone might say, «Let us see what Lasswell says, and not speculate about what he might possibly mean. Lasswell says, «A democracy can be defined ---». Therefore, what Lasswell intends is to give *one possible* definition, not *the* definition of democracy. Obviously, he refers to the word «democracy» as used so far, and he tries to express one of its senses, that is, to offer a precization, a descriptive definition».

To this we may say that the indicative form of «can be defined» in no way implies that the expression cannot function in a normative definition. On the contrary, most N-definitions have an indicative form, so far as I can judge. Moreover, the word «can» does not imply that the author limits his claim and indicates the existence of other adequate definitions (and not only definitional formulations). He also uses the expression «Communities *are* democratic if ---». In this expression there is no «can». If the last sentence

V. ELEMENTARY ANALYSIS

functions to recapitulate and sum up the previous ones, it is difficult to see how the dogmatic «are» can be reconciled with the weak «can be defined» if we stick to «strict word meanings», as the hypothetical analyst seems to do.

Without going into further details of argumentation, I shall venture to assert the hypothesis that Lasswell intends to state something very similar to what is called a precization in chapter I, but that the inclusion «let us specify a two-thirds majority» does not belong to the definiens of the descriptive definition. (It belongs to the normative definition intended, I suppose.) The intended field of application of the description of usage is not hinted at. Possibly, Lasswell refers to twentieth-century use of «democracy» in England and the United States among students (professionals and amateurs) of political theory and of law. This is only a guess. It is fairly certain, however, that Lasswell does not intend to cover every use of the word «democracy». Thus, he probably does not think that the use made of the word in *Pravda* harmonizes with his definition.

Does Lasswell intend to give a real definition, a definition as a condensed characterization of democracies? That is, does he give a condensed characterization of denotata of a concept not introduced by the quoted passage? There is no part of the definitoid group of formulations that points toward real definition rather than descriptive definitions if the methodological trend of the author suggests influence from traditions foreign to the doctrine of real definitions. The methodological trend of Lasswell may roughly be called «Anglo-American empiricism», and the use of the word «define», therefore, tends to point to normative or descriptive definition rather than real definition. The trend is enhanced in cases of influence from test-psychology and parts of social psychology in which terms are more or less operationally defined by criteria that are admittedly to some degree arbitrary. These parts of social psychology are well known to Lasswell.

Let us try to reformulate the quoted passage and work out some precizations of it. The following formulations and announcements express to me, and I hope to my readers, some plausible precizations of Lasswell's passage or parts of it:

- A. «A democratic government» I propose should be used synonymously with «a government that authorizes majority participation in the making of important decisions, and in such a way that

1. The majority participates actively. A majority of at least two-thirds qualifies to vote and takes part in elections.
2. The overwhelming majority is free of intimidation.
3. The overwhelming majority has confidence in its capacity to exert effective control over decisions, whether or not it votes on any given occasion».

B. «A democratic government» I propose should be used synonymously with «a government that authorizes majority participation in the making of important decisions».

C. «A democratic government» is, by students of forms of government, used synonymously with «a government --- [the rest as A or as B]».

D. «A democratic government» is used, and shall in the following be used, synonymously with «a government --- [the rest as A or as B]».

E. «A democratic society» I propose should be used synonymously with «a society in which

1. The majority participates actively in the making of important governmental decisions.
2. The overwhelming majority is free of intimidation.
3. The overwhelming majority has confidence in its capacity to exert effective control over decisions, whether or not it votes on any given occasion».

The list of plausible interpretations that are relevant to at least one purpose of description could be extended indefinitely.

A system of descriptions of a definition can be worked out on the following lines and with contents classed as follows:

- I.a. Descriptions 1) on the level of preciseness of the author (Lasswell) and 2) with highly competent people as the intended public (professional students of forms of government and related subjects) of the elementary analysis.
- I.b. Descriptions 1) on the author's level of preciseness but 2) with people who are not highly competent as intended receivers.
- II.a. Descriptions 1) possibly transintentional, on higher levels of preciseness than that of the author and 2) with highly competent people as the intended receivers.

To get higher levels of preciseness, it will be necessary to reformulate with a view to excluding some possibilities of interpretation that are present when highly competent people read the passage within its context. What should be taken as «the context» must be decided on. We suggest

V. ELEMENTARY ANALYSIS

that chapter 1 of *The Analysis of Political Behavior* be taken as standard context and not the whole book, because chapter 1 was originally an independent essay published in 1942 in *The Future of Government in the United States: Essays in Honour of Charles E. Merriam*.

Even in cases of descriptions of type I, reformulation may prove necessary because the description cannot include the whole chapter, and the reader of the analyst's description is therefore handicapped in relation to the reader of the chapter. To make the passage as precise among the intended receivers of the analysis as it is when read by the same persons as part of the whole chapter, we shall probably have to reformulate, because of interpretational vibrations caused by elimination of context (chapter 2, section 13).

II.b. Descriptions 1) possibly transintentional, on higher levels of preciseness than that of the author and 2) with people who are not highly competent as the intended public.

On the whole, we must expect descriptions of type II to be rather lengthy, especially in the case of a public with very little knowledge of theory of government. In limiting cases we shall get descriptions that are so lengthy and contain so much information that they must be conceived of as courses of study that make the receivers more competent, and therefore lead them out of their original class of competency.

III.a. Descriptions 1) on lower levels of preciseness than that of the author and 2) with highly competent people as the intended public of the analysis.

III.b. Descriptions 1) on lower levels of preciseness and 2) with people who are not highly competent as intended receivers.

This class of descriptions (type III) contains popularizations. Maybe it is fruitful to precise «popularization» in such a way that precisations can at the same time be popularizations. Thus, the word might be introduced as follows: «a *popularization* of a definitoid statement» shall mean the same as «a description of the statement with a less competent group of people as the intended public».

The levels of preciseness mentioned in the above classification can be measured only in relation to a group of people. The group of people of most interest to the elementary analyst is his own intended public. This means

that the level of preciseness of the author (in the above example, Lasswell) is measured in relation to the intended receivers of the elementary analysis. In other words, it is asked, How would the public reading the analysis have understood Lasswell if, instead of reading the analysis, it had read the original? What is the ratio between the range of misunderstandings that would occur in reading the original and the range of misunderstandings that occurs in reading the description constructed by the analyst? If the latter range is narrower and part of the range of the former, the level of preciseness of the analyst will, according to the above convention, be said to be higher than that of the author.

A definitoid statement such as the quoted passage from Lasswell may be found to contain several definitions even if only one interpretation of each part of the passage is used. Thus, in the quoted passage, several expressions seem to function as definienda expressions:

1. «democratic government»,
2. «democratic society»,
3. «democratic community»,
4. «degree of democraticity of a government»,
5. «degree of democraticity of a society»,
6. «degree of democraticity of a community».

Expressions 4–6 do not directly reproduce expressions occurring in the quotation because this would be fairly difficult. Expressions 2 and 3 and expressions 5 and 6 are plausibly intended to express identical definienda. A great many possibilities are relevant to the difficult question of determining *exactly* which expressions in the passage are intended to function as definiens expressions for the definiendum expressions listed. The sentence «The majority may express itself directly (direct legislation) or indirectly (elected officials)» may be interpreted as a part of some definientia expressions, or as an elaboration or elucidation added to such expressions. The argumentation for or against these possibilities will necessarily be rather uncertain.

With regard to the question of which definienda expressions are connected with which definientia expressions, there are various interesting interpretations. Thus, a democratic society is said to be definable «in terms of shared deference (power, respect, insight) or ---». Now, with respect to

V. ELEMENTARY ANALYSIS

power, maybe Lasswell would insist that in a democratic society there must be a government that «authorizes majority participation in the making of important decisions». Or, maybe the just-quoted expression is meant only as part of a definiens related to «democratic *government*». It seems to me that there are arguments in favor of both interpretations.

Anyone who thinks that these distinctions are of no importance is invited to try to classify governments, societies, and communities by means of the quoted passage. We suggest that, for example, the attempt to classify the governments, societies, and communities of the southern United States from 1860 to 1948, of Norway from 1820 to 1890, and of the Spanish-American republics will show the necessity of strong precisations and therefore of many distinctions. On the other hand, it may be conceded that a serious attempt at classification on the basis of definitions is unduly optimistic in the social sciences, wherein perhaps the signal function of words is dominant and the symbolic function still rather undeveloped.

No attempt is made in this section to find out exactly what purpose the quoted definitoid statement of Lasswell is intended to serve. We have outlined *possibilities* of description on the basis of a plurality of purposes. Thus, there is in the section no direct criticism of the passage. In terms of the classification of pretended level of preciseness, our illustration does not make any definite claim to furnish more precise formulations than the author, but rather to develop material of use for descriptions of higher levels of preciseness. As our receivers, we have intended a highly competent group interested both in the theory of democracy and in semantics.

Suppose we decide to make a fairly precise description of that which we suppose Carnap (1936: 435ff.) intends to convey by his «definitions». The definitional formulation is begins with «We will say that the confirmation of S is completely reducible ---». Just what is intended by sentences of the form «We will say that ---»? In all, seven of Carnap's definitions make use of that phrase. Does the phrase express a decision (in plausible psychological or social-psychological senses)?

It cannot be our purpose here to deal at length with psychological descriptions of what decisions are, how one tests for whether a decision has taken place, and what authors intend when they express decisions. What we wish to point out is the imminent danger of overestimating the definiteness of intention with which such phrases are used. To reduce the dan-

ger it is appropriate to study, for example, other phrases that Carnap uses in the sentences called (or expressive of) «definitions». Of the thirty numbered definitions and subdefinitions in the first half of «Testability and meanings», sixteen make use of the phrase «--- is called ---», for example, «A predicate 'Q' is called reducible --- if ---». Seven contain the phrase «--- is said to have --- if ---», for example, «A sentential function is said to have molecular form if ---».

It is unlikely (but of course possible) that Carnap intends to convey different kinds of announcements by means of the different phrases. Therefore, the analyst will probably be led astray if he looks for fine shades of meaning possibly associated with the expression «will say» that are not associated with «is said to have» or «is called». To describe as exactly as possible what Carnap intends to express, we must indicate something that is adapted to both the «is called» announcements (or assertions) and the «will say» announcements (or assertions). The wording and context of his definitions do not give us much material from which to draw inferences about his definitions. We are in such cases justified in relying tentatively on his sentences about «definitions» in general—his doctrine about definitions. This must be done with strong reservations, because an author cannot be expected to follow his doctrine with complete consistency. A doctrine about definitions may, however, be taken as symptomatic of dispositions of particular usages of sentences such as «--- will be called ---».

Suppose the analyst tells his audience, «The sentences headed «Definitions» in the paper «Testability and meaning» are, by its author, intended to *express* a series of *decisions* on his part about how to use certain expressions within the text at issue». Two questions immediately arise: To what degree are the ambiguous terms «express» and «decision» expressive (for the analyst) of the meaning intended by Carnap? What are the most probable ways in which the analyst's public will interpret the terms «express» and «decision»?

To find material relevant to the first question, one may use Carnap's own «definition»(?) of a subclass of definitions: «[b]y an (explicit) definition of a descriptive predicate 'Q' with one argument we understand a sentence of the form $Q(x) \equiv \dots x \dots$ where at the place of ' $\dots x \dots$ ' a sentential function—called the definiens—stands which contains 'x' as the only free variable» (Carnap 1936: 439). An examination of evidence in favor of

V. ELEMENTARY ANALYSIS

the assumption that $Q(x) \equiv . . . x . . .$ is intended to express decisions in vernacular or psychological connotations, would lead us into detailed examination of the function of such expressions within the texts of Carnap and others, and possibly to the use of questionnaires and interview methods aimed at stimulating Carnap to produce theories about his own usages.

Logicians use a variety of expressions to indicate normative definitions and related announcements and predictions. Thus, in the short introduction of the article «A basic logic» by F. B. Fitch (1942: 105), the following phrases are used: «by --- will be meant», «--- is used in this paper as a synonym for ---», «--- is to be understood as meaning the same thing as ---», «--- is said to be ---», «--- may also be called ---», «--- will be called ---», and «--- is ---». An example of the last form is «A calculus is a «combinatory calculus» if its «formation rules require only a single binary mode of combination of expressions»».

The aim of elementary analysis of definitoid sentences is not merely to give quotations, but somehow to convey to the readers of the analyst's text the contents of decisions or assertions assumed to be intended by definitoid sentences. The variation in terminology is one of the complicating factors.

V.6. Descriptions of Explicit Definitions

If an author gives one explicit formulation expressly called «a synonymity hypothesis» and expressed in language well adapted to the analyst's public, the analyst's job as a describer tends to be reduced to that of merely quoting the author's formulation and adding an introductory note, «This is the hypothesis: ---». In other cases, there are still definite formulations on the part of the author that more or less certainly are meant to express a hypothesis very similar to a synonymity hypothesis, but are less precise, less complete, and perhaps mixed together with other hypotheses. Still more complicated cases are those in which the author has produced scattered formulations that together seem to reveal a hypothesis, or that can be explained by the assumption that he makes a hypothesis but presumes it to be known to the reader and therefore does not give a complete expression of it.

In still other cases, the analyst's work will more closely resemble that of a constructor of rather indirect and speculative theories than that of a de-

scriber: he may find it fruitful to ascertain which hypotheses the author *might* have had in mind, such that his scattered sayings are rendered coherent and expressive of a synonymy hypothesis. This activity may involve transintentional precisations and may have the character of an attempt to improve and make fruitful obscure parts of an author's work. The result may be presented as possible explicata of the author's formulations, or as other kinds of so-called rational reconstructions of them.

A special case of considerable importance should be noted: that in which an author makes formulations that seem to be intended as expressions of conceptual characteristics, but makes no formulation intended as a complete conceptual determination. These characteristics may belong to a normative or descriptive, *unstated*, definition.

In this and in other cases in which there are no formulations that seem to be intended as *expressions* of a (complete) definition, one can say that there may be, nevertheless, an unexpressed definition intended by the author of the text surveyed. The term «intended», as used technically, refers to intended meaning of expressions. However, one may say that the author probably has a definition, possibly unexpressed, that to some extent regulates what he says expressly in his texts. This is no more speculative than to look for opinions that people entertain but do not express.

When H. Ofstad (1950b) says that he tries to find the descriptive definition of «general legal norm» intended by Hans Kelsen, what Ofstad seeks is the descriptive definition entertained (possibly as an unexpressed opinion) by Kelsen. Kelsen's assertions, if they are to be meaningful and tenable, seem to *presume* such a descriptive definition, and a normative definition with the same definiens formulation. If no such definitions are held and as a rule used by Kelsen, it is of interest to construct some that are adapted to Kelsen's assertions and to make them coherent and as tenable as possible.

V.7. Description of Definitions and Philosophical Analysis

The task of describing and interpreting definitoid formulations may be considered trivial and unphilosophical. Nevertheless, the task is clearly involved in philosophical analysis and, more generally, in various kinds of theoretical work in science, law, and administration. If anybody judges the

V. ELEMENTARY ANALYSIS

task to be too trivial or unimportant, he should be careful not to rely on assertions that presuppose such investigations. If he does rely on such assertions, either he will have to give up pretensions of having a critical habit of mind, and thus give up research, or he will perforce have to carry out investigations that he may not find interesting. If he does not rely on such assertions, he may use «if» or «suppose that»: «if by «a» is meant «b», *then* ---».

Among the theories presupposing more or less strict and more or less exhaustive descriptions of definitions, we especially call attention to the following kinds:

«In philosophy the term x is defined as follows: ---», «Bryce defines «democracy» as follows: ---», «The pragmatists say that «truth» means ---», «According to Tarski, the traditional notion of «truth» is ---», «A democratic government has always meant one in which ---»

«He does not follow his own definitions», «In the discussion, contradictory definitions are given ---»

It follows from the notions introduced, that ---»

The definitions in Kant's works ought to be made more precise or modified in some cases, because ---»

His system of definitions is unfruitful ---»

Very often, philosophers give an exposition of the opponent's views that is inadequate for the purpose of interchange of opinions. Of the hundreds of formulations pretending to state what pragmatists say they mean by «truth», very few can be called plain, honest reproductions or interpretations of statements representative of William James, F. C. S. Schiller, John Dewey, or other persons called «pragmatists». The descriptions of definitions tend to be oversimplifications and caricatures. They are apt to secure easy victories over real or fancied opponents and to entertain, but not instruct, the readers. On the other hand, a philosopher like William James lavishly produced definitoid formulations, many having more literary than scientific value. It is in such cases the function of the serious analyst to compare the various formulations with one another and to concentrate on those that seem to be most precise and representative of James's intentions.

*B. Analysis of Complex Definitoid Statements and Groups
of Definitoid Statements*

**V.8. Inconsistencies and Contradictions Within
Complex Definitoid Statements**

Let us go back to formulations such as «*a*» means (or shall mean) the same as «*b*» and «*a*» means (or shall mean) *b*. They have been called synonymy sentences, interpretative sentences, synonymy announcement sentences, and interpretative announcement sentences. The expression «*b*»—the definiens expression—is often rather complicated. Suppose a definiens expression can be brought into the form «*x* is a K_1 and *x* is a K_2 and . . . , and *x* is a K_n » The expressions « K_1 », « K_2 », . . . , « K_n » are called «conceptual characteristic expressions» of a concept '*b*' expressed in the sentence «*x* is a *b*» (cf. chapter I, page 80).⁴

Sentences of the forms «*a*» means the same as « K_1 and K_2 & . . . & K_n » and «*a*» means « K_1 and K_2 & . . . & K_n », in which *a*, K_1 , K_2 , . . . are designations, are often discussed under such names as «analytical definitions», «material definitions», and «analysis of terms».

One of the chief aims of logical analysis has been said to be to find out whether a concept contains contradictions. In terms already introduced, this question can be said to refer to possible pairs of inconsistent conceptual characteristics.

Except in the most highly developed fields of the exact sciences, complex definiens formulations are usually capable of a variety of highly different plausible interpretations. Suppose K_1 to K_n are each capable of *m* important mutually independent plausible interpretations. This results in a great number of possibilities even if *n* and *m* are small numbers. Thus, if *n* = 3 and *m* = 4, there are $4^3 = 64$ possible interpretations to take into account. It is, in view of the difficulties encountered, of importance to distinguish, among others, between assertions expressed by T_1 – T_4 :

- T_0 : The complex definiens *b* contains inconsistent elements.
- T_1 : For at least one plausible interpretation, «*b*» contains at least one inconsistency.

V. ELEMENTARY ANALYSIS

- T₂: For any plausible interpretation, «b» contains at least one inconsistency.
- T₃: For most plausible interpretations, «b» contains at least one inconsistency.
- T₄: For the most plausible interpretation, «b» contains at least one inconsistency.

These assertions may be intended to be understood in relation to a reference class of interpretations.

In philosophical writings there is a tendency to proclaim that this or that concept is contradictory without mentioning anything about different interpretations being possible and without mentioning which auxiliary hypotheses are constructed to arrive at the conclusion «contradictory». No differentiation between definiens expression «b» and the intended concept, 'b', is made, and likewise «K₁», «K₂» . . . are confused with 'K₁', 'K₂'. . . .

Even a well-established hypothesis that at least one set of interpretations of K_i and K_j results in contradiction does not warrant rejection of the concept involved, as long as there are sets in relation to which the concept is not contradictory. The analyst's verdict according to which the concept «is» inconsistent seems usually to be intended in a rather absolutistic way, namely that there is inconsistency for the (correct) interpretation of the elements of the complex definiens formulations. If this absolutistic verdict were not intended by the analysts, their polemics against the views considered to express contradictions would not be easily understandable. It would be of great interest to the theory of interpretation and preciseness to see such hypotheses about contradictions worked out explicitly and confirmed by methods carefully described.

Commenting on previous drafts of this work, L. Løvestad (1944: 63) points to the great amount of work necessary to work out inconsistencies by comparing all plausible interpretations, and he remarks, «So much brain work may certainly be put to better use though it may be of some significance. To convince us that there is confusion of thought ---, I think it more than enough to show that one set of plausible interpretations makes the definitions contradictory». The moral we draw from this is that instead of pretending to find full-fledged contradictions, we ought normally to limit ourselves to showing *symptoms* of confusion, this being sufficient for many (good

or bad) purposes. If we want to assert something more definite, we may assert that if certain interpretations are correct (in relation to the usage of an author, or a particular public or semantical system, or whatever else), then there is a contradiction. Normally, the diversity of plausible interpretations is so marked, that it does not hold that contradictions are present whatever interpretation is selected. If the level of precization is high, there is a greater chance that the analyst can arrive at reliable conclusions concerning interpretations. The chances of establishing contradictions increase.

The analytical philosopher who proclaims the discovery of a contradiction may seem to think that he discovers a fatal weakness in the works of others, whereas he, at least in my eyes, makes an important concession: he implicitly grants them an unusually high level of preciseness.

The terms «inconsistency» and «contradiction» are used in various senses, and it is not always easy to find out which one is used in a particular context. Roughly, two main directions of precization may be singled out, the one leading to concepts of logical inconsistency and the other leading to concepts of empirical inconsistency. Logical inconsistency may roughly be said to arise when there is a definitional characteristic of 'b' that is the negation of one of the other definitional characteristics, or is derivable from that negation. In other terms, there is logical inconsistency within the system of conceptual characteristics

$$'b' + 'K_1 \& \dots \& K_i \& \dots \& K_j \& \dots K_n'$$

if, and only if, the right-hand side implies a characteristic 'c and not-c'.

«Empirical inconsistency» may be said to exist within the set of conceptual characteristics if the joint attribution of two (or more) of those characteristics to one and the same thing is logically incompatible with assertions that are empirically established. There is no general agreement about what is established empirically: therefore, the claim of inconsistency must be explained in detail.

As an example, let us say that two characteristics, 'made up exclusively of helium' and 'speaks fluent Spanish', belong to the definiens characteristics. The resulting concept may be said to contain an empirical inconsistency in the above sense if we assume that the author holds that gases cannot speak.

V. ELEMENTARY ANALYSIS

In examples of more interest, the inconsistency is more indirect and open to doubt.

Analysis of possible consistency or inconsistency of a definiens concept 'b' can conveniently proceed as follows:

1. A list of plausible interpretations of « K_1 », « K_2 », . . . « K_n », is constructed and the items made precise and standardized in form to such an extent that there is maximum comparability between the interpretations of the various expressions of conceptual characteristics.
2. The precisizations are conceived as logical terms, classes, or properties, and some logical calculi are adopted in relation to which one may decide whether there is contradiction between any subclass of conjunctions of the items or whether a contradiction is derivable from subclasses of conjunctions.
3. Empirical inconsistencies are mapped out on the basis of more or less reliable assumptions of empirical kinds and relating to the empirical opinions of the concept constructors or to a system of opinions adopted because of its importance socially or in terms of competency. All conclusions about empirical inconsistencies will be relative to these sets of premises.

Now, if the complex definiens expressions are highly vague and ambiguous, it is not practicable to proceed as above. In the verdict «contradictory!» there is in our eyes a component of flattery; one concedes that such a high degree of unambiguity has been reached that contradictions have been established beyond reasonable doubt. Only high-level precisizations can be expected to justify the conclusion that there *are*, for all plausible interpretations, inconsistencies. Pieces of rock may collide squarely, but not patches of fog.

V.9. Analysis of Groups of Definitoid Formulations

A central concept in the work of an author is not often defined within definite parts of the work and by means of one single definitional formulation. More often, we find a number of definitional formulations scattered throughout the major parts of the text or heaped up in introductory chap-

ters. It is a difficult job for the elementary analyst to collect the definitoid formulations and to find out on the basis of all of them what the author seems to intend by his basic definiendum formulations, as judged from what he himself explicitly tells us by means of definitoid formulations. The effort is not primarily one of finding inconsistencies, but of using *all* available definitoid formulations as a context in the attempt to make every single one of them more precise, or to find out which of them are most precise.

Among scientists specializing in the nonexact sciences, there are (unhappily) no established mores governing how to indicate what kinds of definitoid formulations are intended. Thus, one formulation may be intended to give a condensed characterization and another a normative definition without this being indicated anywhere. Or, the *author* may consider one formulation of an N-definition the «basic» one that he tries to follow, but that he needs to repeat for didactic purposes. His repetitions are not exact duplications, however, and the *reader* has, often, no means of finding out which formulation is intended to be basic. He is unable to find any information about which measuring rod of several slightly different ones is to be considered the standard.

Even the question of whether two definitoid formulations of one and the same author designate «the same» is often difficult to answer and may call forth somewhat arbitrary decisions.

Usually, more than one expression is classed as definiendum in a text. We speak about «the definitions of Democracy», but concepts of 'Democracy' in the relevant literature are not always expressed by the *one* word «Democracy», but by hosts of more or less synonymous words, for example, «democracy», «popular government», «truly popular government», «truly democratic order», «modern democracy», «democratic state», «more democratic than», and «republican». As analysts we must make up our minds which expressions are to be considered definiendum expressions. If, now, the analyst finds out that the definitions expressed by «a» and «b» are logically contradictory, this conclusion may be premature, because he has not taken into consideration different hypotheses as to which expressions within «a» and «b» must be regarded as definiendum expressions of the same concept. In short, «a» and «b» may have definiendum expressions intended to express different connotations.

Suppose we find that two definitoid formulations, «a» and «b», have

V. ELEMENTARY ANALYSIS

the same definiendum expression or two different but intrapersonally sender- (affirmer- or announcer-) synonymous definienda expressions. A systematic comparison involves, first of all, the following questions:

1. Do the definitoid formulations «a» and «b» belong to the same main subclass of definitions? For example, are they both normative, descriptive, or real definitions? If both are normative definitions, are they both proposals, both decisions, or what?
2. Do both formulations have the same *range of intended application*? If they do not, do they have overlapping ranges? If they have no part in common by definition, do they have something in common empirically?
3. Are the definiens formulations *intended to be strictly synonymous*? Is the one intended to be merely a reproduction of the other, perhaps just to remind the reader of it? Is the one a sort of short reference for the other? Or is the one a sort of definitional precisization of the other? Or is a difference in connotation intended, perhaps in view of the author's having used two slightly different concepts adapted to different purposes?

Until we can answer these sets of questions with reasonable certainty, it is premature to start a profound discussion of conflicting concepts. A conflict presupposes a common area within which there is conflict.

In philosophical literature there is a tendency to ignore the problems that have to be solved before one can conclude, «The two authors both try to define *one and the same* thing, namely ---».

It is common to speak of «the coherence theory of truth», «the pragmatic theory of truth», and so on. We must ask, theories of --- *what*? Protocolation of definitoid formulations referred to as «definitions» or «theories» of truth reveals hundreds of different definiendum expressions. There is not much evidence for the view that a definiendum expression «*die Wahrheit*» or «the Truth» found in a Hegelian or neo-Hegelian text is intrapersonally synonymous with a definiendum expression «a is true» found in contemporaneous texts by empirical philosophers or logicians. The ranges of intended application are scarcely the same, either. Why should

we have discussions on the basis of assumptions that we take here as hypotheses about the same subject matter? If knowledge is the goal, the procedure seems utterly misleading.

If indications of intended range of application are vague or not explicitly mentioned, two definitions said to contradict each other may in fact be compatible, because their intended range of application may not have any point in common. If a term is defined in one way as a *terminus technicus*, it may very well be defined otherwise for use in nontechnical contexts. The definitions are in that case perfectly compatible.

The more a philosopher stresses analytical problems, the more strictly and exhaustively he will have to deal with the matters mentioned in this section. It is not my intention to recommend strictness and exhaustiveness without qualification, but to say, «If you make such and such claims, then you must be able to answer *how* you reached such and such conclusions». But why rely on hypotheses presupposing vast and boring elementary analyses? Perhaps the aims of argumentation might often be reached without pretending that certain such hypotheses were tenable. It is not in the line of this work that such hypotheses should be made.

Within the texts of a single author we may expect a much higher degree of uniformity and consistency in usage than in a group of texts by different authors. The attempt to compare definitoid sentences is made difficult by the complexity of criteria of interpersonal synonymy. Added to this are the particular difficulties arising from the chaotic terminological differences in how words such as «definition» are often used in definitoid sentences.

If the definiendum and the definiens expressions of an author are identical with those of another, this does not imply interpersonal synonymy. Thus, many authors use the same definiens expression in definitoid statements on «democracy», but they would eagerly stress that they do not mean the same by the definiens expression. As an example, we may mention Lincoln's famous formula of «government of the people, by the people, for the people». Theorists from very different camps, Communist authors (for example, Zaslavski in his *La démocratie soviétique*) included, accept the formula as an expression of the definiens, but there is approximate general agreement that, within the different ideological camps, the definiens ex-

V. ELEMENTARY ANALYSIS

pression expresses different concepts. This general agreement may prove more or less illusory—owing partly to the tendency to stress divergencies for propagandistic reasons, partly to different terminology—but fairly reliable judgments in these matters have not, so far, been possible. There is simply no empirical basis, and no theoretical tools, for stating precise hypotheses in the field.

Incidentally, it may be mentioned that Lincoln, whose formula is widely used as a definiens expression of «democracy», rarely used the word «democracy» in his speeches.⁵ The famous passage in his Gettysburg Address (1863) containing the formula reads, «--- It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion—and that government of the people, by the people, for the people, shall not perish from the earth». Extensive discussions on «Lincoln's definition (or concept) of democracy» have been carried out on the basis of rather weak criteria of identity of N- or Ds-definitions (cf. chapter 4, section 5).⁶ Lincoln uses no definiendum expression that is probably synonymous with «democracy» as used by adherents of the Lincoln formula. Against the contention that weak criteria of identity are being used, it may be objected with some justification, I think, that it is not clear that the participants in the discussion intend to discuss something closely similar to N- or Ds-definitions, even when words such as «definition» and «concept» are used. These words seem to carry rather different meanings among different groups of theorists—as already mentioned. The objection is difficult to refute, but also difficult to confirm. We should still hold that some participants intend by «definition by Lincoln» something sufficiently similar to an N- or Ds-definition to warrant my contention.

V.10. Illustration 1: Bryce on 'Democracy'

Specialists in political science, constitutional history, and other fields in which the word «democracy» and closely related words are used in technical senses offer N-, Ds-, and R-formulations generally consisting of about twenty to forty words. Most of the words in the definiens expressions are taken from the vocabulary of everyday life and from ideological propaganda. The resulting definitoid formulations are difficult to use other than in a loose manner. In this section we shall not exemplify the difficulties of

use, but rather the preliminary difficulties that arise when we try to answer a humbler question, What does the theorist P in his texts on «democracy» *intend to assert* about what he means or intends to mean by «democracy»?

James Bryce, recognized as an eminent analyst of concepts of «democracy», was also an influential ideologist. In the following, we shall study his parallel formulations. Not all of Bryce's texts are subjected to analysis. We limit ourselves to his *Modern Democracies*, vols. I, II (1921), and *The American Commonwealth*, vols. I, II, III (1888). In the works mentioned, at least ten formulations may be classed as definitoid statements. In addition, there are a host of formulations that give important reflections on the use of the word «democracy» (and a group of synonyms or near-synonyms) without seemingly having pretensions to contain complete conceptual determinations.

*a. List of Bryce's Definitoid Formulations on «Democracy»
in Modern Democracies and The American Commonwealth*

1. «. . . Democracy really means nothing more nor less than the rule of the whole people expressing their sovereign will by their votes» (1921: I:viii).
2. «The word Democracy has been used since the time of Herodotus to denote that form of government in which the ruling power of a State is legally vested, not in any particular class or classes, but in the members of the community as a whole. This means, in communities which act by voting, that rule belongs to the majority, as no other method has been found for determining peaceably and legally what is to be deemed the will of a community which is not unanimous. Usage has made this the accepted sense of the term, and usage is the safest guide in the employment of words» (ibid.).
3. «Democracy, as the rule of the Many, was by the Greeks opposed to Monarchy, which is the rule of One, . . .» (ibid., p. 23).
4. «Thus it [Democracy] came to be taken as denoting in practice that form of government in which the poorer class, always the more numerous, did in fact rule; . . .» (ibid.).
5. «. . . it is better to employ the word [Democracy] as meaning neither more nor less than the Rule of the Majority, the «classes and masses» of the whole people being taken together» (ibid.).

V. ELEMENTARY ANALYSIS

6. «Where the will of the whole people prevails in all important matters, even if it has some retarding influences to overcome, or is legally required to act for some purposes in some specially provided manner, that may be called a Democracy» (Bryce 1921: 25).
7. «In this book I use the word in its old and strict sense, as denoting a government in which the will of the majority of qualified citizens rules, taking the qualified citizens to constitute the great bulk of the inhabitants, say, roughly, at least three-fourths, so that the physical force of the citizens coincides (broadly speaking) with their voting power» (ibid., p. 26).
8. «An Ideal Democracy—the expression comes from Plato’s remark that a pattern of the perfect State is perhaps stored up somewhere in heaven—may be taken to mean a community in which the sense of public duty and an altruistic spirit fill the minds and direct the wills of the large majority of the citizens, so that the Average Citizen stands on the level of him whom we sometimes meet and describe as the Model Citizen» (ibid., p. 53).
9. «The word democracy is often used to mean a spirit or tendency, sometimes the spirit of revolution, sometimes the spirit of equality» (1906: 3:323).
10. «For our present purpose it is better to take it [the word «democracy»] as denoting simply a form of government, that in which the numerical majority rules, deciding questions of state by the votes, either directly, as in the ancient republics, or mediately, as in modern representative government, of the body of citizens, the citizens being if not the whole, at least a very large proportion of the adult males» (ibid.).

As a first task of multiple-definition analysis, we shall attempt to classify the formulations in relation to the distinction among N-, Ds-, and R-formulations. The tentative results are indicated in table 1. This classification is highly hypothetical. Of the hypotheses of interpersonal synonymy made use of, the following one is typical: «the word «denote» in the definitoid formulations of J. Bryce is interpersonally synonymous with the word «connote» in the present work».

Some of the definitoid statements may be intended to be definitions

Table 1. Classification of Bryce's Definitoid Formulations on «Democracy»

Definitoid- Statement No.	Definiendum	Subclass of Definition	Field of Intended Application
1	Democracy	Ds	All (most?) occurrences since Herodotus?
2	Democracy	Ds	All (most) occurrences since Herodotus?
3	Democracy	Ds and R?	Ancient Greek occurrences
4	Democracy	N?	A subclass of ancient Greek occurrences?
5	Democracy	N?	Universally?
6	Democracy	Ds	Universally?
7	Democracy	N and Ds? Ds	Occurrences in Bryce's <i>Modern Democracies</i>
8	Ideal democracy	N?	? 1) Universally, or ? 2) No. 8 is a plausible interpretation, or ? 3) No. 8 is sometimes the most plausible interpretation
9	Democracy	None?	Some occurrences (indefinite)
10	Democracy	N?	Texts having the purpose of Bryce's <i>The Amer. Commonwealth</i>

with complex function (see chapter 4, section 13). This is alluded to in the table. Definitoid Statement No. 9 is a hypothesis about usage that can be brought into the form «There exist occurrences of «a» such that «a» means the same as «b»; there exist occurrences of «a» such that «a» means the same as «c»; and so on». It is very difficult to test the hypotheses empirically if there are great numbers of occurrences of the definiendum. For this and other reasons, the concept of descriptive definition has not been made to cover the «existence hypotheses» about usage. They are classed as dictionary definitions, which, in the adopted terminology, are not a subclass of descriptive definitions.

The listed indications of «field of intended application» in terms of occurrences are still more hypothetical. As quoted in Statement No. 2, Bryce says, «The word Democracy has been used since the time of Herodotus to denote ---». It is not reasonable to infer that this expression is meant to be

V. ELEMENTARY ANALYSIS

synonymous with «The word Democracy has been used since the time of Herodotus to connote *one and only* one connotation, namely that expressible by ---». It is not reasonable because it is too obviously untenable to be intended by Bryce. Further, if Statement No. 4 is classed adequately, Bryce is of the opinion that «democracy» in Greece sometimes referred to the rule of the poor, and if Statement No. 9 is classed adequately, the term has sometimes referred to the spirit of revolution or of equality. It is reasonable to suppose that the occurrences that Bryce has here in mind are not occurrences that he thinks represent usage No. 2. It is difficult to avoid inconsistency between No. 2 and Nos. 4 and 9 if «has been used since the time of Herodotus» in No. 2 is interpreted to mean the same as «has always been used since the time of Herodotus».

Definitoid Statement No. 7 is classed as a descriptive definition, but as indicated in the table, it may also be interpreted as a combined N- and Ds-definition. In support of the latter indication we can reason as follows: When an author tells us, in the opening sections of a book, and after having discussed various possibilities of definition, that he *uses* a term in a special way in that book, he may thereby intend to convey to the reader a decision about how to use the word in that book. Suppose the reader finds an occurrence later in the book that cannot be subsumed (he thinks) under the definiens indicated by the author, and suppose the author agrees about the insubsumability. It is in that case plausible that the author will reformulate his occurrence sentence rather than his definitoid sentence. This would be a curious way to straighten things out if the definitoid sentence were meant as a purely descriptive definition, but a reasonable way if the sentence were meant to have a normative function. The author would then reformulate in order to follow his decision expressed by the definitoid sentence conceived as a combined descriptive and normative definition.

We might quote passages indicating that Bryce attaches particular importance to a sense intended to be expressed by No. 2, No. 1, and No. 7. The wordings of No. 1 and No. 7 are themselves indications of this. The problems involved are of practical importance in contemporary ideological conflicts. Authors contending that Marxists misuse the word «democracy», and Marxists contending that their critics misuse the same word, all seem to rely more or less on statements of experts like Bryce, even in cases where the definitoid formulations are astonishingly vague and ambiguous as regards intended range of application.

Turning to the question of *synonymity among the various definiens expressions* indicated more or less precisely by the ten statements, we shall at first limit ourselves to a rough answer. The ten definiens formulations fall into four heteronymous groups, one consisting of the definiens formulations of Nos. 1, 2, 3, 5, 6, 7, 10, one consisting of No. 4, one consisting of No. 8, and one consisting of No. 9. It is probable that No. 8 has to be disregarded because there is rather strong evidence that it is defining «something else» than the other formulations, even if we use a rather broad concept of identity of definitions.

The main group of definiens formulations are possibly meant to express or suggest one and the same concept. Which concept? That question leads us to the construction of lists of plausible interpretations. Before we attack that question, however, some slight reformulations are suggested with the aim of making the statements easier to compare with one another and with similar formulations of other authors.

b. Reformulation of Some Definiens Expressions to Facilitate Comparison and Increase the Level of Preciseness

The following reformulations are made on the basis of a context comprising the ten statements plus comments, some of which may be meant as definitional, found in the texts of Bryce.

Statement No. 1

From No. 2, I infer that Bryce means to speak about forms of government of *states*. In No. 3, Monarchy is spoken about as the opposite of Democracy. Monarchies usually are classed as states. This also suggests that the «government» alluded to in No. 1 are state governments.

The reference to «sovereign will» might be interpreted in a way that made the existence of a sovereign will a presupposition of the author of the statement. Or it may be interpreted to indicate that one of the requirements of a state government's being democratic is that the will of the people should be sovereign. There are other interpretations that seem just as plausible. Here is a single, very tentative definiens reformulation:

(01.1) A state ruled by the whole people by means of the technique of voting and in such a way that their will is sovereign.

V. ELEMENTARY ANALYSIS

Statement No. 2

In view of No. 5, No. 7, and No. 10, reference to the «will of the majority» seems to be meant as part of the definition. No. 9 uses the even more precise term «numerical majority». If there is an important state issue on which a majority cannot be constructed by any known means, the definition does not apply. If there are regularly no majority decisions, the state government probably cannot be called democratic in the sense discussed. In view of the extensively debated questions turning up here, I shall construct several reformulations that are more or less plausible interpretations of the definiens of Statement No. 2.

(02.1) A state with a form of government in which the ruling power is legally vested in the members of the community as a whole.

(02.2) A state with a form of government such that the ruling power belongs in practice to the majority of the members of the community as a whole, the members acting by vote.

(02.3) A state with a form of government such that the ruling power is legally vested in the majority of the members of the community, the members acting by vote.

Statement No. 5

Statement No. 5 is probably a deprecization used for the sake of short reference. «Rule» may be taken to refer to the form of government, to the practice of government, to both, or to the disjunction.

Statement No. 6

Taking into account the reference to majority and to other factors, we venture to set forth the following sentences as plausible interpretations:

(06.1) Where the will of the people prevails in all important matters.

(06.2) Where the will of the majority prevails in all important matters.

Statement No. 7

For Statement No. 7, we suggest the following reformulation:

(07.1) A form of government by which the will of the majority of the qualified citizens rules, the class of qualified citizens being

delimited in such a way that roughly at least three-fourths of the inhabitants are included in the class.

Statement No. 8

It is not clear whether Bryce means to accept a concept of 'Ideal Democracy'. The following reformulations are suggested:

(08.1) A community in which the sense of public duty and an altruistic spirit fill the minds and direct the wills of the large majority of the citizens.

(08.2) A community in which the Average Citizen stands on the level of him whom we sometimes meet and describe as the Model Citizen.

Maybe Statement No. 8 ought to be interpreted as stating what would be the ideal (best conceivable) state of affairs within a democracy. In that case, it should not be included in any list of definitions.

Statement No. 10

The following reformulations seem to us plausible interpretations of the definiens of Statement No. 10:

(10.1) A form of government in which the numerical majority of citizens decides questions of state by vote, the class of citizens being delimited in such a way that it comprises all adult males or at least a very large proportion of them.

(10.2) A form of government in which the numerical majority of citizens rules. Insofar as the rule consists in making decisions in relation to questions of state, the majority decides by the votes, directly or mediately. All adult males, or at least a very large proportion of them, are considered to be citizens.

The reformulations have been made primarily to illustrate the activity of reformulating definitoid statements. There are many other reformulations that might be of interest in special situations. Thus, if Bryce's definitions are to be compared with those of another theorist, reformulations are needed that increase the similarity of *intentional structure* of the concepts compared.

V. ELEMENTARY ANALYSIS

If we are asked *which* concept of Democracy Bryce uses, we should have to answer that there are differences in formulations that make different interpretations possible, the differences being large enough to exclude fairly precise formulations. The majority of his definitoid statements suggest that he intends concepts of constitutional democracy, a subdivision of the class of concepts of political democracy.

c. Tentative Precizations of Bryce's Definitoid Formulations

The reformulations proposed above are precizations for *me*. They need not, of course, be precizations for others, but I expect that some of them will be. Some of them, I think, Bryce would have acknowledged as precizations for him; others, he would presumably have classed as misunderstandings. We try to exemplify the construction of tentative lists of precization based primarily on study of definitoid formulations, not of formulations of usage. In the last part of this chapter, and in later chapters, the study of usage in the sense of study of *all* occurrences of an expression is made our subject of description.

Our first direction of precization is one that may vaguely be indicated by the following questions: Are, *per definitionem*, states, and no other things, democratic, or can clubs, manners, individuals, and distribution of goods be democratic? Can some of the combinations (or/and combinations) be democratic?

It should be stressed at the very beginning of these attempts at precization that we ask about what can be democratic by N-definition or Ds-definition. Which are the *conceptual characteristics* (*Begriffsmerkmale*), if any, that refer to states, clubs, and so on, as being democratic? It is perfectly possible to use the expression «democratic manners» even if a concept of 'state democracy' is adhered to and *concepts* of 'democratic manners' are explicitly rejected. The expression may be precized into «manners (empirically) typical of democratic states». If one such democratic manner is to wear green trousers, it is perfectly consistent with concepts of 'democracy' as something by definition applying only to states, to speak of «democratic trousers», meaning, for example, «trousers used only in (state) democracies».

The old distinction between conceptual and other characteristics may sometimes be difficult to apply and sometimes unfruitful in application,

but on the whole I think it is of great practical and theoretical value. The distinction is explicitly mentioned in this connection because it is often slurred over in dictionaries and encyclopedias.

In Statement No. 2, Bryce refers to states: «form of government in which the ruling power of a *state* ---». He also refers to «states» in No. 9. No expression in any of the formulations seems to provide strong arguments against the assumption that democracies are, by N- or Ds-definition, states according to Bryce. But what does «state» mean here? Does the word include federations of states, as for example, that of the United States in 1800? What about the United States in 1900? From the use of the word «state» in Bryce's *Modern Democracies*, it would seem that both the United States as a totality and its individual states are «states» in Bryce's sense. Would Bryce have called the Ukrainian Soviet Socialist Republic a state? Or the Estonian Soviet Socialist Republic? From the definitoid statements and commentaries to these statements, it is difficult to judge. In any case we tentatively put forth the following genus proximum precization:

T₁: A form of state government, or a form of federation of state governments.

What is meant by a «*form* of government»? Mostly I have interpreted Bryce to mean something like «government as legally determined by constitutions and other kinds of legal documents». But maybe something similar to «kind of government» is meant. This brings us to the next direction of precization to be considered: Is «government» to be taken in a broad sense of «rule»—covering not only legal institutions but also the whole political «life»? Is «government» to be understood as something like «making and carrying out decisions of state», or is it mainly the «making» that is involved? Or is «government» to be understood in narrow senses, as in phrases such as «the government obtained a vote of confidence» and «the government has changed twice this year»? Is «government» to be thought of as «ruling *power*» in such senses that make it plausible to state that «the people govern»? In the sphere of legislation, is to govern to make laws—as is done, for example, by legislatures—or to be the source of law? (Compare John Austin's view of sovereignty as source of law [1875].) Does government include local government? the courts? the activities of price-regulation institutions? Is «government from day to day» involved, or only

V. ELEMENTARY ANALYSIS

«ultimate basis of long-run influence»? In the former alternative, what is meant by saying that a state *is* democratic—does this imply «is always» something like «in times of war, or threats of war, --- may be excluded»?

It is not our aim to point out how many factors of importance to high levels of preciseness are left unmentioned in Bryce's definitoid formulations. He has himself warned against pretensions of constructing formulas that are precise enough to make classification into democracies and non-democracies possible in *all* cases. He touches on the questions of the direction of precisization now being mentioned in the following words: «There are countries in which the Constitution has a popular quality in respect to form, but in which the mass of the people do not in fact exercise the powers they possess on paper». --- «It is the facts that matter, not the name». «[T]hough we cannot define either Oligarchy or Democracy, we can usually know either the one or the other when we see it» (Bryce 1921: 1:25). After this sentence comes definitoid Statement No. 6, which is the one containing the most explicit reference to actual influence on decisions rather than legally vested influence. Also, Nos. 1, 3, 5, and 10 seem to point to broad interpretations of «government».

Each of the following formulations seems to me to be a plausible interpretation of at least one of the statements depicting the use of «democracy» as proposed by Bryce:

(1.1) «S is a democracy» means (according to Bryce's N-definitions) the same as:

- «1. S is a state or federation of states, and
2. S has a written or unwritten constitution providing the legal basis of institutions of such a kind that they, if the provisions of the constitutions were followed, would guarantee that important decisions of state were made in accordance with the will of the people, and
3. Except in grave cases of emergency or possibly even then, important decisions of state are in S made in accordance with the will of the people».

(1.2) «S is a democracy» means --- : «1.--- and 2.---».

(1.3) «S is a democracy» means --- : «1.--- and 3.---».

(1.4) «S is a democracy» means --- : «1.--- and 2.--- or 3.---»

Statement No. 2, perhaps Bryce's most influential definitoid statement, as judged by frequency of quotation, lends itself well to precizations in the direction of (1.2). Taking all the definitoid statements as context, this direction seems to me to be the least plausible. There are, however, no reasons to reject the practical possibility of (1.2) being intended by some of the definitoid formulations (but not by all). In those cases, requirement 3 may be looked on not as a conceptual characteristic, but as a criterion of «real», «strict», or «good» democracies, meaning thereby to indicate a subclass of democracies approved of somehow.

Statement No. 6 may plausibly be interpreted in the direction of (1.3) or (1.4). When all the definitoid statements are taken into account, the plausibility turns more toward (1.1), however.

Considering all the statements together, I consider (1.1) to be the most plausible interpretation of the four listed. This conclusion, as well as the whole approach, is highly speculative in the sense that we do not try to collect detailed evidence. The argumentation is loose and as stated here very sketchy. These critical remarks have as a basis certain norms about adequacy of evidence, argumentation, and exposition that are more rigorous than those that seem to be generally adopted, however.

In the tentative partial precizations (1.1)–(1.4), some very obscure expressions are still left unprecized, for example, «will of the people», «important decisions of state». These expressions are left untouched because they are convenient point-of-departure expressions for new directions of precization. Let us take the expression «the people». Precization of this ideologically important word gives us perhaps the most profitable direction of precization from the point of view of elimination of pseudoagreements, which is of practical importance in contemporary ideological controversies.

Who are «the people» mentioned in the definitoid statements? Bryce has himself precized the expression to some degree. Here are some expressions used in his definitoid formulations:

- U: the people
- U₁: the whole people (see Statements No. 1 and 6)
- U₂: the members of the community as a whole (No. 2)
- U₃: the Many (No. 3)

V. ELEMENTARY ANALYSIS

- U₄: the Majority (? No. 5)
- U₅: the «classes and masses» of the whole people being taken together (? No. 5)
- U₆: the inhabitants (? No. 7)
- U₇: the great bulk of the inhabitants (? No. 7)
- U₈: the qualified citizens (? No. 7)
- U₉: the majority of qualified citizens (? No. 7)
- U₁₀: the citizens (? No. 10)
- U₁₁: if not the whole, at least a very large proportion of the adult males (? No. 10)

We have in the cases of Statements No. 5, 7, and 10 indicated by question marks that we are undecided as regards which, if any, expressions in these formulations correspond to the expression «the whole people» in Statement No. 1. In the reformulations on page 253, the catchphrase «will of the people» is used. That use can now be avoided.

Each of the following formulations seems to me to be a plausible interpretation of at least one of those statements that may be meant as N-definitions:

(2.1) «S is a democracy» means (according to Bryce's N-definitions) the same as:

- «1. S is a state or federation of states.
- 2. The source of power to decide questions of state is in S legally vested in the whole body of qualified citizens.
- 3. The qualified citizens comprise legally all or at least a very large proportion of the adult male inhabitants of S.
- 4. The decisions are in S legally made by majority vote among the qualified citizens, directly or indirectly».

(2.2) «S is a democracy» means (---) the same as:

- «1. S is a state or federation of states.
- 2. The power to decide questions of state in S is in practice in the hands of the whole body of qualified citizens.
- 3. The qualified citizens include all or at least a very large proportion of the adult male inhabitants of S.
- 4. The decisions are in S made by majority vote among the qualified citizens, directly or indirectly».

(2.3) Identical to (2.2) except for conceptual characteristic 4, which runs as follows:

4. Questions of state are in S decided in accordance with the decisions that would have been made, provided the citizens had made the decisions by majority vote.

(2.4) Identical to (2.2) except for the fourth requirement, which runs as follows:

4. Questions of state are in S decided, directly or indirectly, by the qualified citizens.

Many additional plausible interpretations may be formulated by combining these four, by leaving out stated requirements, or by combining the resulting broader concepts. We shall limit ourselves to mentioning some of fairly high relevance to contemporary controversies.

Requirement 4 in (2.1) and (2.2) is difficult (if plausibly interpreted) when a voting group splits in such a way that no proposal attracts as much as 50 percent of the vote. Bryce explicitly justifies the «majority» clauses in his definitions by saying that no other method has been found to determine «peaceably and legally what is to be deemed the will of a community which is not unanimous» (Bryce 1921: 1:23). These two factors point toward the possibility of leaving requirement 4 out of the definition. This would make it possible to leave out complicated references to governmental machinery within precisizations of (2.1) and (2.2).

Someone may object that strong precisization ultimately would have to mention concrete procedures of voting. Such an objection, however, implies a misconception of the procedures of definition. We may strongly precisize what in the theory of patent-claim drafting is called a «function» or «effect» as contrasted with the structure (devices) of machinery, and give a highly operational definition of function in terms of effects, without answering questions of how the effects are produced beyond certain links in cause-effect chains that are very close to the effects.

The phrase «source of power» («sovereignty» in some interpretations of this word) is a weak spot in the wording of requirement 2. Further steps of precisization might conveniently use negative phrases, such as «No group of the inhabitants is excluded from performing certain acts of influencing state decisions on account of race, income, property, sex, political opinion, ---».

Concept (2.3) may lead to the inclusion of state governments such as

V. ELEMENTARY ANALYSIS

that of Napoleon III, or even of Hitler, among democracies. The «will of the people» may in some sense «prevail» under authoritarian governments, just as authoritarian parents may let their children have their way.

The interests (needs and desires) of the populace are not referred to in any of Bryce's definitoid statements. It may be a tacit assumption that the «will of the people» announces the interests of the people (for example, that the people are not deceived so as to vote against their interest or vote against it because of lack of insight). In contemporary discussions there is much talk about what determines the «will of the people» if that will is identified with certain answers put before the citizens or their representatives by powerful organizations and institutions.

There are many directions other than the three mentioned in which «democracy» may be precized. Bryce's definitoid statements do not contain much material, however, that could be used as evidence for or against hypotheses of interpretations in those directions. We shall therefore leave the subject.

A low level of preciseness may have been sufficient for Bryce's purposes. He is primarily interested in studying and describing the political institutions of France, Switzerland, Canada, the United States, Australia, and New Zealand, and he is especially concerned with certain common trends and patterns in the development of those states. He is only secondarily interested in a broad classification adapted to detailed comparisons of a great number of states. Just as a physiologist of certain plant genera may have little use for the niceties of the plant classifier, so the student of certain intimate functions of a handful of modern states may not need to use highly sophisticated tools of a systematic classification of states, past and present.

The quotations and discussions of this section are part of the material necessary to give an exact answer to an inexact question, *What does Bryce say he means by the word «democracy»?* The answer may be an undigested list of quotations—a very bad answer. Or we may comment on them, saying that this or that formulation probably does not—for the reader—give as good an expression of Bryce's intention as this other formulation.

For many purposes, it is valuable to try to find one particular formulation especially adapted to the title «a fairly precise formulation of the sense James Bryce says he gives the word «democracy»». Here is a candidate:

A state or federation of states, S, satisfying the following requirements:

1. S has a written or unwritten constitution providing the legal basis of institutions of such a kind that, if the norms of the constitution were followed, it would guarantee that the source of power to decide questions of state would be in the hands of the whole body of qualified citizens.
2. The norms of the constitution of S are followed.
3. From the delimitation of 'qualified citizens', as prescribed by the constitution or other legal documents, it follows that under all practically conceivable circumstances, all, or at least a very large proportion, of the adult male inhabitants of S will be qualified citizens.
4. The legal delimitation of 'qualified citizens' is followed in practice in S.
5. Except in grave cases of emergency, or possibly even then, important decisions of state are in S according to law, only if made by majority vote among the qualified citizens, directly or indirectly.
6. The legally prescribed procedure of voting is followed in S.

A considerably shorter formula is: «democracy» connotes for James Bryce a form of government and government practice whereby at least three-fourths of the adult males have voting power and in which this power gives the majority of the voters or the majority of their chosen delegates power to decide basic questions of policy.

A question not discussed here is, How does Bryce actually *use* the word «democracy»? An answer involves study of subsumption of instances under general rules, a subject treated in the last part of this chapter and in later chapters. So far, our concern has been the definitoid statements on use, not the use itself.

We have singled out the word «democracy» and the author Bryce in order to give an illustration of analysis of groups of definitions. The choice has brought to the fore problems of analysis that are neither unusually difficult nor unusually easy. Bryce is regarded as a man of extraordinary clearness of thought and expression, and an analysis of «democracy» as expressing forms of government does not present special difficulties. In spite of this, a great many difficult questions are presupposed solved by anyone who, without restrictions and with scientific pretensions, says, «*This* is what Bryce says he means by «democracy»: ---». Even more is presupposed

if we say, «Between the concept of ‘democracy’ adopted by Bryce, and that adopted by Laski, there is the following difference: ---», or «The concept of ‘democracy’ adopted by Bryce is inconsistent».

V.11. Illustration 2: Bradley on «Truth»

In this section we propose to leave the analysis to the reader. A list of formulations is presented, the author of which is the well-known English philosopher Francis Herbert Bradley.

If these are formulations of definitions, how are they related to one another? How are they related to a D-formulation such as «truth means agreement with reality»? Is «truth» in that formulation meant to connote the same as «truth» in Bradley’s formulation? Or perhaps one has to distinguish «truth» as a collective name for «truth», and «truth» as an all-comprehensive unique system? How, in that case, is the discussion between Bradley and the pragmatists to be understood? How is the definiendum «truth» to be related to the definiendum «true» in the works of Alfred Tarski?

We mention these questions to invite the reader to formulate problems presupposing the kind of elementary analysis dealt with in this paper. Here are some of the formulations representing the object of study, all of them direct quotations from Bradley (1914).

1. «The identity of truth, knowledge and reality, whatever difficulty that may bring, must be taken as necessary and fundamental» (p. 113).
2. «--- truth, if it were satisfied itself, and if for itself it were perfect, would be itself in the fullest sense the entire and absolute Universe» (p. 113).
3. «Truth claimed identity with an individual and all-inclusive whole. But such a whole, when we examine it, we find itself to be the Universe and all reality» (p. 116).
4. «Truth is the whole Universe realizing itself in one aspect. --- And those aspects in which truth itself is defective are precisely those which make the difference between truth and reality» (p. 116).
5. «Truth is an ideal expression of the Universe, at once coherent and comprehensive. It must not conflict with itself, and there must be no suggestion which fails to fall inside it» (p. 223).

6. «To gain truth the condition of the predicate must be stated ideally and must be included within the subject. This is the goal of ideal truth, a goal at which truth never arrives completely.»
7. «--- truth is identical with Reality in the sense that, in order to perfect itself, it would have to become reality. On the other side truth, while it is truth, differs from Reality, and, if it ceased to be different, would cease to be true. But how in detail this is possible cannot be understood» (p. 343).
8. «For me truth gives the absolute Reality, the whole Universe as in its general character it really is» (p. 351).

V.12. Metaoccurrence Analysis in General

Definitoid sentences make up an important subclass of sentences that say something about «use», «interpretation», «meaning», and so forth, of sentences or designations. The importance of the definitoid sentences lies in the broadness of their claim: they seem to furnish a complete indication of how an expression is (or shall be) used or a condensed description of all possible denotata.

Metaoccurrences may also contribute to our knowledge, even if they do not have such a broad claim. Their analysis may therefore be of importance, especially in the case of authors whose terminology is difficult to understand because they have not provided any normative definitions.

Our first example of a nondefinitoid metaoccurrence comes from Pericles' *Funeral Oration*, 431 B.C. «It is true that our government is called a democracy, because its administration is in the hands, not of the few, but of the many» (Thucydides, trans. C. F. Smith 1921–30: 323).

Here is another example. «By «predicates» I [Quine] mean, not properties (or classes) and relations, but merely certain notational expressions» (Quine 1945: 1). Quine gives what is, in this work, called a genus definition («predicate» stands for members of a subclass of notational expressions, a genus of notational expressions).

Richard von Mises (1939: 7) proposes the terminological convention «dass wir im folgenden unter einem Wort, einem Satz, einem Text immer nur ein in der Schrift festgehaltenes Bild verstecken». He wishes differences in pronunciation by different people to be ignored, along with certain other differences that are not indicated in writing. It is scarcely his inten-

V. ELEMENTARY ANALYSIS

tion to give a normative interpretative definition of the kind «By «sentence» shall be meant picture of sentence as part of written text». Maybe he intended to offer such a definition, but his statement may at least plausibly be interpreted as offering a piece of information about proposed usage without the pretensions of a normative definition.

As another example of a metaoccurrence that may be important for adequate interpretation of a term, but that does not furnish a normative or descriptive definition, we may quote a statement of Carnap's: «--- in the book under discussion, I do not apply the term «proposition» to sentences or to any other expressions» (Carnap 1945: 154). This hypothesis about one's usage is not a descriptive definition, but in a metaoccurrence analysis of the term «proposition» the statement may be of value to the analyst.

C. Subsumption Analysis

V.13. Scope and Definition of Subsumption Analysis

Whenever there is a problem of testing whether anything conforms to a given characterization, whether or not it is an instance of something having a described property, one may speak of a problem of *subsuming* an instance under a characterization or rule. Classification and exemplification involve subsumption thus conceived.⁷

In this work a narrower concept is more useful, but let us, as a preliminary, consider some of the features of subsumption, taking the term in its wide and vague connotations.

In relation to any doctrine whatsoever, one may ask, What are the signs of its tenability? of its untenability? What are the limits of irrelevancy? Subsumption under such categories presupposes that the doctrines are somehow expressed and that the expressions satisfy requirements of preciseness. «Tenability» must be given a definitional precization, and all alleged evidence for or against must, if put forth seriously, be expressed in such a way that the subsumability hypotheses can be judged. It is now generally conceded that there is no *experimentum crucis* for this: a mass of observations may be taken to establish tenability only if various kinds of auxiliary hypotheses are employed. These auxiliary hypotheses may always be formulated as subsumability hypotheses—hypotheses that, together with certain data, make the

data subsumable under a characteristic. The auxiliary hypotheses justify these data being judged relevant as positive evidence of something.

In courts, and in jurisprudence in general, subsumability hypotheses are often expressly and lengthily discussed: Is this or that law applicable? Is this or that action subsumable under the rules of competency set up for this or that institution? Often, the expression «to interpret» is, in jurisprudence and administration, used in such a way that subsumption of concrete instances under general rules is part of the interpretational process.

In social science, the extensive use of questionnaires worked out to obtain evidence for or against hypotheses has made it necessary to rely on the codification of answers. Systems of auxiliary hypotheses must be mentioned in order to make explicit how the researchers are able to class certain answers as more or less strongly positive evidence, and certain others as more or less strongly negative evidence.

Lack of explicitness in explaining subsumptions makes the auxiliary hypotheses untestable. If each of two scientists who support rival theories declares that a certain mass of data confirms his own and disconfirms the rival theory, there is not much value in gathering new data. It will first of all be necessary to investigate how the scientists manage to carry out their conflicting subsumptions: what are the main auxiliary hypotheses of each instance of subsumption of evidence?

Every testable assertion about usage, or rules intended to regulate usage, has an intended field of application. Its delimitation may be more or less explicitly formulated or totally unformulated, but if no possibility of subsumption is thought of, the «assertion» makes no claim. Whether one should still call it an «assertion» is open to doubt.

If «a» is a definiendum expression and S the field of application, a normative definition announces something about every instance (occurrence) of «a» within S. It announces a synonymy relation between «a» within S and a definiens expression «b». Further marginal references delimit the usage of «b» that is intended by the sender of the normative definition.

Let us suppose that the sender wishes «b» to be interpreted as the readers of his texts interpret it. Some complications result from such a stipulation. Telling his readers that in his texts «a» shall mean the same as they, the readers, mean by «b», he can only be said to have followed his normative definition if any occurrence a of «a» in the texts is intended to express

V. ELEMENTARY ANALYSIS

the same as «b» expresses for the readers when they substitute «b» for «a». That is, there must be synonymy between a for the sender and b for the readers. In symbols:

$$(i)(j)\text{Syn}(a_i P b_j Q_j)$$

where P is the sender and Q_1, \dots, Q_j, \dots the readers.

The normative definition cannot be followed unless all the readers interpret the definiens expression in the same way. That is, if the normative definition is to be followed, the following condition must hold:

$$(i)(j)(k)(l)\text{Syn}(b_i Q_k b_j Q_l)$$

The analyst charged with the task of testing whether the sender of the text sentences and of the normative definition has or has not followed his normative definition is confronted with various problems. He must find out about the meaning intended by the sender of occurrences $a_1 \dots a_i \dots$, that is, the occurrences of the definiendum expression. Those intended meanings must be compared with the interpretations representing how readers have interpreted $a_1 \dots a_i \dots$. Suppose the readers have interpreted $a_1 \dots a_i \dots$ as they would have interpreted «b» at the same places in the text; that is, they have followed the announcement of the sender. If now their interpretations of «b» as substituted for $a_1 \dots a_i \dots$ coincide with the sender's intended meanings of $a_1 \dots a_i \dots$ then the sender has followed his normative definition. If not, he has violated his stipulations.

This example has been considered in detail because it shows a kind of normative definition that makes consistent application dependent on interpretation processes, not only of the author of the normative definition, but of a group of people that is usually open and of rather indefinite boundaries. Hypotheses of interpersonal synonymy are involved.

V.14. Some Preliminaries Involved in Subsumption Analysis

Schematic Survey

Assertions or announcements relevant to subsumption analysis may be expressed within the following scheme:

Syn(aPS₁, bQS₂) (Ann or Ass)

The symbols «a» and «b» stand for two designations or two formulations. The synonymy hypothesis or synonymy announcement states something about *every occurrence* (instance) of «a» satisfying the requirement that «a» must be «for P in S₁» and every occurrence of «b» satisfying the requirement that «b» must be «for Q in S₂». In other words, occurrences of «a» and «b» are relevant only provided they are denotata of the concepts ‘occurring in S₁ for P’ and ‘occurring in S₂ for Q’. The relevance of the synonymy hypothesis or announcement in relation to any set of occurrences of «a» and «b» depends on the subsumability of «a» under the first concept and «b» under the second. It is not this kind of subsumability, however, that has given subsumption analysis its name.

If a set of occurrences of «a» and «b» is subsumable under the concepts mentioned, a *synonymy hypothesis* of the kind

Syn(aPS₁, bQS₂) (Ass)

states that for every such set of «a» and «b» there is a relation that *holds good*, namely ‘synonymy between «a» and «b»’.

If a set of occurrences of «a» and «b» is subsumable under the concepts mentioned, an *announcement* of the kind

Syn(aPS₁, bQS₂) (Ann)

states that for every such set there is a relation that *holds good if the announcement is followed*, namely ‘synonymy between «a» and «b»’.

If, and only if, an occurrence of «a» for P in S₁ is a denotatum of the concept ‘synonymous with «b» for Q in S₂’, then the schematical synonymy hypothesis is confirmed in relation to that occurrence of «a».

We call *subsumption analysis* the inquiry into whether given occurrences of «a» for P in S₁ can be subsumed under the concept ‘synonymous with «b» for Q in S₂’. The aim of that analysis is to find the arguments for and against subsumability and to weigh them against each other.

If we use synonymy concepts by which synonymy is defined operationally as the occurrence of certain types of answers to certain types of questions, subsumability may be easily shown or refuted. Nor-

V. ELEMENTARY ANALYSIS

mally, we use synonymity concepts that are more independent of such questionnaires.

The general scheme of synonymity hypotheses and announcements is unnecessarily abstract and complicated for our discussion of subsumption analysis. We may adapt the terminology of our discussion of definitoid statements to our present purpose and use the terminology indicated below:

Syn(TM, UM') (Ann or Ass)	
T	definiendum expression or expressions (sometimes also used for the class of definiendum expressions)
M	intended field of application of the synonymity hypothesis or announcement
U	definiens expression or expressions
M'	the standard interpretation

Using the terminology of analysis of definitoid statements, we write:

T	expression somehow indicating class of definiendum expressions
M	expression somehow indicating field of intended application
U	expression somehow indicating class of definiens expressions

We use the nonspecific «somehow indicating» so that we may include a great many rather obscure, but important, definitoid formulations found in all kinds of literature. If, for example, we try to determine whether certain usages of «democracy» within certain types of propaganda follow the indications the authors give as determining their use of the word, we shall have to analyze rather obscure indications, not clear-cut synonymity hypotheses or announcements.

By the symbols M_1, M_2, \dots we refer to interpretations of the expression, M, indicating the intended field of application—if there is any such

explicit or implicit indication. For the designatum of M_1 , that is, the field itself, we use M^1 .

By the symbols T_1, T_2, \dots we refer to interpretations of the expression, T , indicating class of definiendum expressions. If several expressions make up the denotata of the class, we write T^1, T^2, \dots .

For example, let T be the expression «the term democracy». Differences of interpretation of that expression owe in part to the habit of taking «democracy» to stand, not only for the English word, but also for various other translations of the corresponding Greek term. The denotata T^1, T^2, T^3, \dots of the class of definiendum expressions are in such cases «democracy», «*démocratie*», «*Demokratei*», and so on.

By the symbols U_1, U_2, \dots we refer to interpretations of the expressions indicating class of definiens expressions.

By these symbolizations we stress the separateness of the series of interpretations of expressions ($M_1, M_2, \dots, T_1, T_2, \dots$) and the series of expressions themselves ($M^1, M^2, \dots, T^1, T^2, \dots$).

If it is asked, «Has the word T the meaning U within context M ?» we may very roughly say that the prevalent technique for finding out whether any particular instance of T within M has the meaning U is to ask, «Does U fit in where T is written?» «Do we get a *good meaning* within the context of that occurrence, when we suppose T is used in the meaning U ?» On the superficial dictionary level it may, for instance, be asked whether «democratic» as used within a certain context means «pertaining to the Democratic party (in the United States)». Within a text we find as occurrence No. 1 «The democratic city states of the ancients did not have many inhabitants». We conclude: this occurrence does not fit in with «pertaining to the Democratic party»; therefore, the word must have some other meaning in this context.

This is only a very rough indication. As soon as we try to formulate more precisely the types of arguments used, and the way they are tested, great difficulties arise—difficulties that, so far, no one has extensively investigated and described.

Figure 3 has been prepared to facilitate the survey of the distinctions introduced in this section. It uses the same model as figures 1 and 2 (pages 221 and 224).

The top portion of figure 3 illustrates how an analyst reads a definitoid

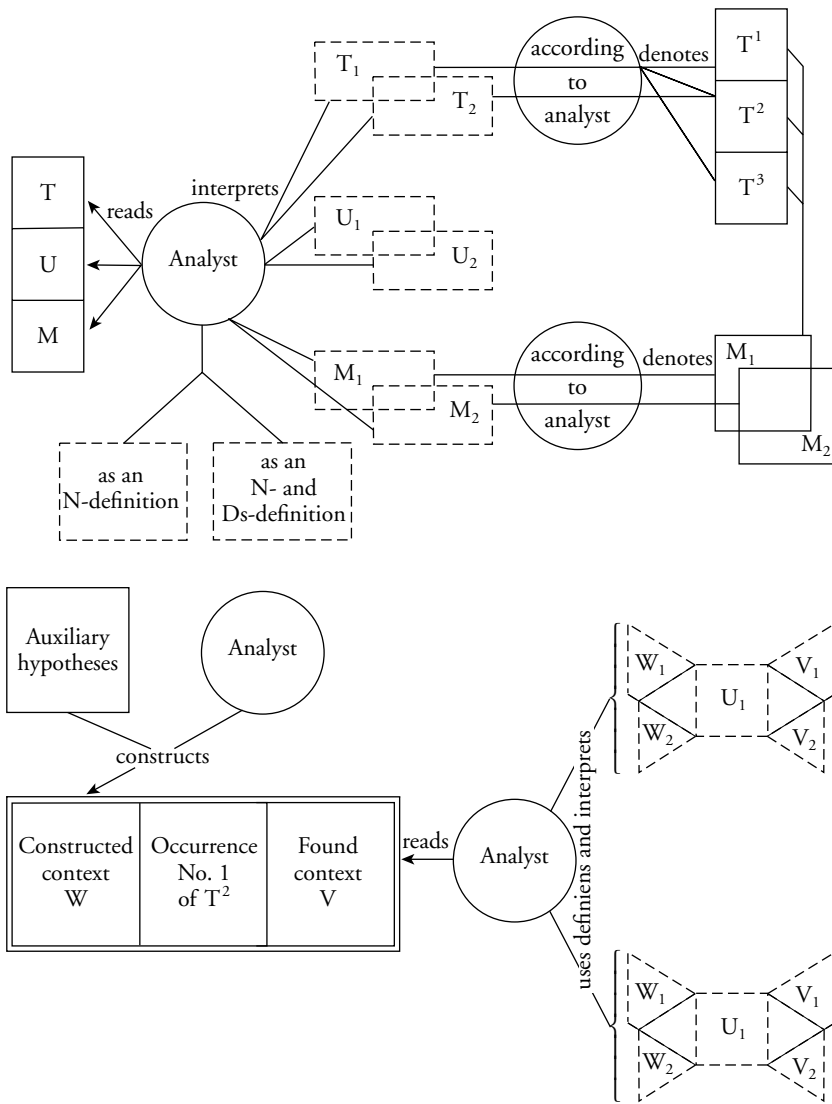


Figure 3. Schematic model for subsumption analysis.

formulation. He interprets the formulation to express either a normative definition or a combined normative and descriptive definition. For the sake of simplicity, M' is left out of the picture. The expression indicating definiendum expressions he interprets in two different ways, T_1 and T_2 . As regards definiens and field of intended application, he likewise cannot limit the interpretation to a single most plausible one, but works with two different interpretations. The definiendum expression denotes, according to the analyst, various expressions. If T_1 is the definiendum interpretation, then T^1 and T^2 are the only denotata. If T_2 is chosen as definiendum interpretation, then T^2 and T^3 are the only denotata within the intended field of application—however this field is interpreted. (This is illustrated by lines from M^1 and M^2 to T^1 , T^2 , and T^3 , indicating that the T 's are part of both M^1 and M^2 .)

In the lower part of the diagram, we have to the left singled out an occurrence (instance) that is to be judged subsumable or not subsumable under the definitoid statement analyzed. It is occurrence No. 1 of the expression T^2 that is to be considered a definiendum expression of the definitoid statement, however T is interpreted. For the sake of simplicity, we assume that T^2 is a formulation, not a designation.⁸ To the right of T^2 is symbolized the verbal context V , which the analyst finds surrounding T^2 . We may think of sentences immediately preceding and following T^2 within a monograph, or we may think of larger context units.

To the left of the rectangle symbolizing occurrence No. 1, we have a rectangle W symbolizing a written «constructed» context of T^2 . By this we mean an exposition of relevant information concerning T^2 , for example, data on the historical epoch in which T^2 probably was written, hypotheses about the political inclinations of its author—in short, anything we use as premises for our interpretation of T^2 except the verbal context V , which simply is «found» as a part of the physical environment of T^2 . The constructed context may normally be thought of as including quotations from various sources that throw light on the use of T^2 . Many of the sentences of the constructed context may be based on intricate, for example, historical, auxiliary hypotheses. These are symbolized by a box above rectangle W .

The analyst approaches the task of subsumption analysis when he reads the sequence WT^2V and interprets T^2 as meaning the same as the definiens, that is, U_1 or U_2 . Doing this, he may be influenced in his inter-

V. ELEMENTARY ANALYSIS

pretation of each unit— W , T^2 , and V —by every other, as schematically outlined in the discussion of interpretational vibrations caused by broadening the context (see chapter 2, section 13). We have not, however, found it advisable to illustrate the complications of such vibrations. We have limited ourselves to symbolizing that the analyst operates with two interpretations W_1 and W_2 of W , and two interpretations V_1 and V_2 of V . Thus, the sequence WT^2V gives rise to eight interpretations:

$$\begin{array}{cccc} W_1U_1V_1 & W_1U_1V_2 & W_1U_2V_1 & W_1U_2V_2 \\ W_2U_1V_1 & W_2U_1V_2 & W_2U_2V_1 & W_2U_2V_2 \end{array}$$

At this stage we face the decisive and so far only roughly suggested problem, Does U^1 or U^2 fit in if it is placed in the context instead of T^2 ? Let us at once presuppose that we do not consider stylistical impossibilities to furnish disconfirmations of fitness. U^1 and U^2 may be long sentences or sentences in different languages from T^2 and therefore do not fit the text from the literary point of view. This does not imply anything as regards the fitness of the cognitive meaning of U^1 , that is, U^1 as expression of an assertion.

If U^1 is found to fit into the context W_1V_1 , this is taken as a *weak confirmation* of T^2 being synonymous with U^1 , that is, of occurrence No. 1 of T^2 being *subsumable* under the concept ‘occurrences of T^2 within M_1 (or M_2) that satisfy the definitoid D-formulation TUM interpreted in one plausible way, T_1 (or T_2) U_1V_1 ’. If U^2 also is found to fit into the context W_1V_1 , this is taken as a weak confirmation of subsumability under T_1 (or T_2) U_2V_1 . (There is no limit to the number of diverse interpretations U_1, U_2, U_3, \dots under which a given occurrence might be subsumable.)

If U^1 is found to fit into the context W_1V_1 , but not into the context W_2V_1 , the weak confirmation is followed by a weak disconfirmation. To answer the question of whether occurrence No. 1 of T^2 satisfies⁹ the definitoid formulation TUV_1 , we shall have to go through all eight interpretations listed above. Such an analysis may be expected to turn out rather complicated and hypothetical.

If one *presupposes* that a certain definiendum, T^2 , is used in the same sense every time it is used within a context, a strong confirmation (or a strong disconfirmation) in relation to one occurrence can automatically be taken as a strong confirmation (or disconfirmation) in relation to the total

context. There is, however, seldom any reason to believe that such a presupposition adequately describes usage within the context.

If the subsumption analysis belongs to the consistency-analysis subclass—authors being studied as regards their tendency to follow their own introduced terminology—one of the chief difficulties is the limited number of instances of the definienda. Sometimes the authors hardly use their defined terms. Furthermore, there is the difficulty that most occurrences give rise to only very weak confirmations or disconfirmations.

It is time to go into detail about what is to be understood by a meaning that fits the context, and what criteria of fitness can profitably be used in research. As an introduction to such a study we propose to give some illustrations of subsumption analysis.

V.15. Illustration 1: Irving Fisher on 'Wealth'

The first example that I shall give is rather trivial and simple. Its aim is to illustrate figure 3. Examples from philosophy would easily run into hundreds of pages. This does not imply that logical analysis carried out according to the principles of this book cannot be presented within reasonable space, but that the working material and inferences from it would demand very extensive space. This is analogous to linguistic research and many other scientific contributions: the published material is generally but a small fraction of the systematized material collected and analyzed.

Irving Fisher (1919: 3) says in his *Elementary Principles of Economics*, «Properly speaking man is wealth, just as, properly speaking, man is an animal. But we so seldom need in practice to take account of man as wealth that the ordinary meaning of wealth includes only *material objects owned by human beings* and external to the owner».

In a commentary on his statement, Fisher says, «The above definition of wealth --- agrees substantially with the usual understanding of businessmen».

That is, Fisher offers a definition as a description of usage among businessmen. The definiendum is expressed by «wealth» (and perhaps with synonyms, some of them in foreign languages). As analysts, we propose the following reformulation:

If x is an instance of the expression «wealth» within a context defin-

V. ELEMENTARY ANALYSIS

able as «professional talk or writing of a businessman», *x* may—without a change in connotation—be replaced by the expression «material objects owned by human beings and external to the owner».

It is to be noted that this version of the definition is adapted to the language habits of the analyst, or, in the last resort, to the readers of the analyst's papers. The reformulation is not adapted to businessmen without logical training.

What Fisher claims is somewhat reduced by the word «substantially». The definition is said to agree «substantially with the usual understanding of business men». Considering the frequency with which the word «wealth» is used (more than once a second?), we have an enormous amount of material at hand that is relevant to the hypothesis. It is, however, not easy to decide in any concrete case whether an instance of the expression «wealth» confirms or disconfirms the hypothesis.

In connection with his definition, Fisher says, «In this book we shall follow ordinary usage by employing this narrower meaning except occasionally when it will be found convenient to refer to the broader meaning» (Fisher 1919: 13). From this we conclude that his definitoid formulation also intends to express a definition as rule, and that the intended field of application includes his book, «except occasionally». Maybe Fisher also can be regarded as a businessman. Two things are here to be tested: first, the hypothesis on actual usage; and second, the question of whether Fisher follows his own rule.

After the introduction, the word «wealth» occurs four times on the next page. We shall confine our discussion to the first occurrence. He says, «It [wealth] is confined to this little planet of ours, ---». Substituting the definiens for «it», we get the formulation «Material objects owned by human beings and external to the owner are confined to this little planet of ours». May this instance be taken as confirmatory?

One of the most direct, most reliable methods of deciding the issue is to interview Fisher, convincing him that our purpose is so important that he should listen attentively and think deeply before answering. We then would simply ask him if he thinks he used «wealth» as a synonym for his definiens in this particular instance. A positive answer counts as confirmation; a negative, as disconfirmation.

This method of questionnaires and interviews is, however, generally not possible. The author may be dead, uninterested, not sufficiently honest,

or not sufficiently trained in analysis. We will, therefore, presuppose that our only direct material is the written text containing the immediate context of the instance of «wealth».

In the absence of other kinds of material, we have to rely on rather crude inferences: if the formulation in which definiens is substituted for definiendum seems malapropos in the wider context, or if it expresses a view that we do not believe the author would agree to, then it is warranted to conclude, «Nonsubsumable, an instance of disconfirmation». In the present case, one may tentatively assert that the first occurrence of «wealth» following the quoted definition of Fisher confirms the hypothesis that he follows his own definition.

V.16. **Illustration 2: Historians on «History»**

Our second illustration is worked out in some detail to stress the various more or less difficult questions involved in subsumption analysis and in preliminaries that have to be discussed before going into subsumption analysis proper.

The Social Science Research Council, Bulletin 54, entitled *Theory and Practice in Historical Study: A Report of the Committee on Historiography*, contains a chapter called «Propositions». Concerning these «propositions» we read, «The committee assumed that every branch of knowledge presents or rests upon a number of propositions accepted by persons competent in such fields as valid in themselves and for application» (SSRC *Bulletin* 1946: viii). The chapter «Propositions» is a tentative list of such propositions. I strongly recommend that readers consult the SSRC bulletin from which this illustration is taken, not only because doing so will enable them critically to evaluate my analysis, but also because the efforts of clarification carried out by the Committee on Historiography are instructive.

Professor Gottschalck defines some of the basic terms used in the propositions. This is done in an introduction (*ibid.*, p. 133), the first part of which reads:

«In order to promote clarity and understanding, the committee has deemed it wise to define the meaning it has attached to certain basic terms frequently used in the Propositions.

The word *history* is used in at least five overlapping senses: (1) the systematic study of, or a treatise dealing with, natural phenomena—as in «natural

V. ELEMENTARY ANALYSIS

history» or «life history»; (2) the past of mankind (or any part thereof)—as in «history as actuality» or «the totality of history»; (3) the survivals and records (whether primary or secondary) of the past of mankind (or any part thereof)—as in «history as actuality» or «the totality of history»; (3) the past of mankind (or any part thereof)—as in «recorded history», a «history book», or a «case history»; (4) the study, representation, and explanation of the past of mankind (or any part thereof) from the survivals and records—as in «written or spoken history»; and (5) the branch of knowledge that records, studies, represents, and explains the past of mankind (or any parts thereof)—as in «department of history» or «school of history».

The sentence «The word *history* is used in at least five overlapping senses:» may be interpreted in different ways. To eliminate some ambiguities of importance in the present connection and to adapt it closely to the terminology of this work, we shall use the following somewhat pedantically formulated precization. The precization is fairly strong, but scarcely the most plausible. More plausible precizations are discussed on page 283.

«The occurrences of the word «history» within the context of the section «Propositions» (not including the four footnotes) on pages 134–140 of the source are instances of «history» being used as designation for at least five different concepts (connotations, propositional significations), each occurrence being a designation of one of these concepts or possibly of other concepts. Each of the concepts may be expressed by conjunctions (and connections) of formulations of conceptual characteristics in such a way that some formulations occur in more than one conceptual characteristic expression (designation).»

The first part of the above quotation will be called «the five-sense theorem». It may plausibly be interpreted as follows:

Each instance of the word «history» within the context «Propositions» (not including the four footnotes) on pages 134–140 of the source is for the eight persons of the Committee on Historiography synonymous with one of the following five numbered expressions or classes of expressions, or with expressions heteronymous with all of them. There is at least one instance of synonymy for every one of the numbered expressions or classes of expressions.¹⁰ (The numbered expressions are reproduced on page 280.)

Interpreted in this way, the five-sense theorem can be tested by sub-

sumption analysis. Each of the questions characteristic of subsumption analysis and mentioned in sect. 13 is relevant to the test. The first question, about intended field of application, appears an easy one at first glance. The field is the aggregate of sentences composing the twenty-one propositions. One of the doubtful instances is the occurrence in the *headings* of propositions 19–21. Do the headings belong to the propositions? We shall include them in the context surveyed, even if this conclusion does not follow from the most plausible interpretation of the designation of field of intended application. Further, the instances of the complex expressions «written-history» and «history-as-actuality» are somewhat doubtful. Does the «-»-sign indicate that the expression as a whole should have word status? In the formulation of the five-sense theorem given by the committee, the expression «history as actuality» (without a «-»-sign) is quoted as an instance of the second concept. But there is in the propositions no instance of that expression. This suggests that the expression «history-as-actuality» should be interpreted as «history as actuality», and therefore as three words. This, in turn, indicates that «written-history» should be interpreted as two words, the «-»-sign having a different function from that of indicating word status. The discussion in this paragraph about the intended field of application presupposes the auxiliary hypothesis «The word «history»» is interpreted to mean the same as «the word «history», if having word status», and not as «the letter-sequence «history»».

Before we continue to illustrate subsumption analysis, we wish to point out that we have not the slightest reason to insist that publications of subsumption analyses normally should go into such details as are exposed in this section. However, if elementary analysis is to be a part of the accepted techniques of research, and if the affirmations presupposing such analysis are ever to achieve the status of testable, well-confirmed hypotheses, then the research worker must go into all details appreciably affecting the scope and validity of the hypotheses. The pedantic exposition of details of procedure are carried out here only because few hypotheses presupposing elementary analysis seem to be based on painstaking research. When new habits of research are developed, extreme condensation of exposition, such as is found in the highly developed parts of the life sciences, will not only be possible without loss of interpersonal preciseness, but will itself be part of the requirements of research.

V. ELEMENTARY ANALYSIS

Let us proceed to formulate the five-sense theorem. It may be plausibly interpreted as a sort of synonymy hypothesis, an effort toward a complex descriptive definition. The definiendum expression is «history»; the field of intended application is the text («Propositions») referred to. As regards the definiens expressions, they may be formulated as follows:

1. «the systematic study of, or a treatise dealing with, natural phenomena»,
2. «the past of mankind (or any part thereof)»,
3. «the survivals and records (whether primary or secondary) of the past of mankind (or any part thereof)»,
4. «the study, representation, and explanation of the past of mankind (or any part thereof) from the survivals and records»,
5. «the branch of knowledge that records, studies, represents, and explains the past of mankind (or any parts thereof)».

The five-sense theorem is a descriptive definition if the expression «as in» (see the original quotation, pages 277–78) can be interpreted so that it may be taken to be synonymous with «as in and only in». If—which is more plausible—it is stated only that the occurrences, for example, of «life history» and «natural history» include *instances of* «history» being used synonymously with definiens expression 1, then there is not the slightest indication of the limits of that subclass of occurrences that make up the intended field of application of the synonymy hypotheses concerning «history» and definiens expression 1. That is, we get a sort of dictionary technique of indicating senses, which, as stipulated in chapter 4, pages 192–93, cannot be viewed as giving descriptive definitions. We have in that case a total field of application for five different synonymy hypotheses, but no delimitation of the fields intended to be covered by each of the hypotheses. This does not make any difference to our illustration of subsumption analysis, however.

The five-sense theorem might also be plausibly interpreted as a description of normative definitions made by the committee members and covering the propositions within their intended field of application. We shall, however, use the interpretation making the theorem a *descriptive* hypothesis of usage, but not a descriptive definition or normative definition.¹¹

Let us then, after these preliminaries, take up the subsumption analysis itself. The first instance occurs within proposition II, which reads:

«The utmost understanding of history attainable to the human mind is to be acquired by extending historical research and thought as far as possible in the direction of comprehensiveness and synthesis as well as by inquiring more deeply into the particular and the unique».

Substituting definiens expressions 2 and 3 for «history», we obtain the following formulations:

- (1.1) «The utmost understanding of the past of mankind (or any part thereof) attainable ---».
- (1.2) «The utmost understanding of the survivals and records (whether primary or secondary) of the past of mankind ---».

In relation to these sentences and three others obtained by using the remaining three definiens expressions, we shall have to pose the question, «Is occurrence number 1 subsumable under the concept ‘occurrence in conformity with the synonymity hypothesis x’?»—where x is a number corresponding to a definiens expression number.

Now, what we have to answer primarily is not whether or not the committee assumed (believed) the occurrence to be in conformity with hypothesis x. We have, as analysts, to take the standpoint of subsumability. On the other hand, we shall primarily have to investigate subsumability based on hypotheses about how the committee interprets the definiens expressions and the sentence within which each occurrence is found. Thus, we shall have to try to find out what the committee meant by proposition II.

Now, I think it is rather certain that (1.1) and (1.2) do not contain contradictions in any plausible logical or empirical sense. If they had, we should have said that occurrence number 1 is not in conformity with synonymity hypotheses 2 and 3, stating that there is intrapersonal synonymity for the committee between the sentence headed «Proposition II» and the sentences (1.1) and (1.2) obtained by substituting definiens expressions 2 and 3 for «history».

A criterion of disconfirmation that is not necessary, but is sufficient, may be stated as follows: substitution of definiendum with definiens in the occurrence sentence results in a sentence containing logical or empirical contradictions from the point of view supposed to be that of the authors,

V. ELEMENTARY ANALYSIS

and there is in the immediate or remote context no indication that the sentence was intended by the authors to express contradictions.

As regards the question of whether the authors of the sentence assumed the occurrence to be in conformity with synonymity hypotheses 2 and 3, a third clause may be added to furnish a criterion of disconformity: there is nothing in the immediate or remote context that makes it plausible that the authors should not have been able to see the contradiction and avoid it.

Absence of logical and empirical contradictions excludes strong disconfirmation of the synonymity hypotheses, but it does not necessarily bring any confirmation. Absence of disconfirmation may be an effect of extreme vagueness and ambiguity, which make it practically impossible to find out anything as regards contradictions.

There is, so far as I can see, nothing in the total text called «bulletin 54» that can give any appreciable confirmation of the synonymity hypotheses.

This property of occurrences—that they do not afford appreciable evidence in support of synonymity relations—is very common.¹² Thus we shall limit ourselves to concluding that «Occurrence number 1 is subsumable under the concept ‘occurrence in conformity with the synonymity hypotheses 2 and 3’». As regards those hypotheses themselves, we can only conclude that occurrence number 1 did not bring disconfirmation, but a *very weak* confirmation (the substitutions give good meaning).

I imagine that the committee intended to use the word «history» in the first rather than in the second sense, but that is only a hypothesis of a rather speculative kind based on some acquaintance with historiography.

Let us now proceed to definiens expressions 1, 4, and 5. The substitution of these expressions for the definiendum does not seem to result in a proposition involving logical or empirical contradictions. The above-mentioned criterion of disconfirmation gives as a conclusion «Not strongly disconfirmed», but other criteria should also be used. Taking the rest of the chapter as a context, I think we may assume that a proposition about «natural phenomena» does not fit in. There would be a breach in continuity that is seldom found in the writings of presumably sane persons. Thus, a synonymity hypothesis corresponding to definiens expression 1 is ruled out by a disconfirmation that I think may be classed as strong, even if the relevant arguments and observational evidence are in practice difficult to obtain. The same may be said in relation to expression

4 and even to expression 5, except that the degree of disconfirmation is here less strong.

Although the point is not relevant to our present analysis, I should like to mention that the continuity hypothesis used as an *auxiliary hypothesis* in disconfirming some synonymy hypotheses can also be applied to the question of whether a mistake appears in the introduction quoted on pages 277–78. It is there stated, «The word *history* is used in at least five overlapping senses: (1) the systematic study of, or a treatise dealing with, natural phenomena ---». Is «history» used in this sense in the propositions, or would it be a mistake, a disconfirmable hypothesis, to state that it is?

So far as I can judge, the assumption of synonymy between «history» and definiens expression 1 goes strongly against the assumption of thematic continuity, and this holds in relation to every single occurrence of «history». The hypothesis seems to be disconfirmable. Nothing is said about natural phenomena, in general, in the propositions. Maybe I misinterpret the definiens expression «natural phenomena». My interpretation of the definiens expressions is an auxiliary hypothesis acting as a premise in all the subsumption hypotheses.

We accept the conclusion «disconfirmed» in relation to the synonymy hypothesis according to which «history» as used in the propositions is at least once used synonymously with definiens expression 1, «the systematic study of, or a treatise dealing with, natural phenomena». This definiens expression and the propositions are here interpreted as we, as analysts, believe the committee would interpret them.

The disconfirmation is a disconfirmation also of the five-sense theorem as precized on pages 277–78. However, as indicated briefly on that page, the interpretation is not the most plausible one. My respect for the historians writing the SSRC bulletin makes me take the disconfirmation as a symptom of the precization's not being the most plausible one. Let us, therefore, take up for consideration five-sense theorems derived by other precizations of the introductory note quoted.

The first sentence of the introduction (see page 277) suggests that the committee has attached some definite meanings to terms (a) occurring in the propositions and (b) used in the propositions. It seems natural for a committee to «attach meanings» (in many plausible senses of that expression) to words as they are used by the committee *in the writings of the committee*. Thus, I think it is plausible to interpret the first sentence of the introduction in

V. ELEMENTARY ANALYSIS

such a way that «the Propositions» can be viewed as a designation of the field of intended application of the following synonymity hypotheses—not only as an indication of where the definienda are to be found.

The next sentence, «The word *history* is used in at least five overlapping senses ---», gets a fairly well delimited meaning as regards field of intended application if «is used» is taken to mean the same as «is used in the propositions». As we have already pointed out, however, the definiens expressions and the propositions taken as context suggest that the intended field of application must have been a broader one. What, then, is the field intended? Textbooks of history? Writings of historians? Writings of those historians who are members of the committee?

We are here concerned with a difficulty that nearly always turns up in connection with subsumption analyses involved in testing whether authors follow their own definitions: what is the intended field within which the definitions are to be tested?

For all heteronymous hypotheses about which field is the field of intended application, there is a corresponding five-sense theorem. On account of the great number of nearly equally plausible interpretations, we shall abstain from explicit formulation of any of them.¹³

So far, we have analyzed only one occurrence of «history», namely, the one in proposition II. Let us proceed to take into account occurrence number 3 found in proposition V:

«In a scientific methodology, clear distinctions must be maintained between the unrecoverable totality of the past, the records of the past, and written or spoken history».

Inserting each definiens expression into the sentence instead of «history», I think no logical contradictions arise, perhaps not even clear-cut empirical contradictions. Nonetheless, the text is made rather incoherent, malapropos, stupid, and discontinuous if definiens expression 3 is inserted. The same holds for some of the other insertions. How this argument about incoherence, stupidity, and so on, is to be made precise and validated, I do not know.¹⁴ The attitude I should tend to adopt is to let the impression of incoherence or stupidity count as a rather strong disconfirmation of the synonymity hypothesis involved, at least until somebody challenged it. If that happened, I would find it fruitful to try to make it precise and go into detailed argumentation.

Definiens expression 4 seems to fit the context best. It expresses, probably, the sense given to «history» by the committee, if the sense is one of the five mentioned. This conclusion conforms with indications in sense number 4, as described in the introduction (see pages 277–78).

In concluding this discussion, I should like to stress the uncertain, vague, and elusive character of the arguments that one has to rely on in subsumption analysis. This character makes it of great methodological importance to omit assertions that presuppose subsumption analysis from argumentations in which those assertions do not play an important role for the validation of the conclusions. Further, that character makes it advisable not to invite disputes about assertions involving subsumption analysis. One may expect the dispute to develop in such a direction that only rather difficult and tedious empirical investigations, which none of the disputants are willing to carry out, can settle the issue.

As material for our illustration in this section, we chose a text written by authors who probably did not have the aim of working out exact hypotheses of usage, but only of *reminding their readers* of some persistent ambiguities in basic terms.¹⁵ Our analysis does not imply any criticism. The quoted introduction seems to us admirably apt to warn readers of ambiguities. It is to be hoped that it also will stimulate research on terminological issues as a part of historical foundation research (*Grundlagenforschung*).

V.17. Survey of Difficulties of Testing Descriptive Definitions by Means of Subsumption Analysis

The practical and theoretical testability of hypotheses involved in descriptive definitions is largely uninvestigated. Testing normative definitions for whether or not the rules laid down are followed meets with the same difficulties. When we form a hypothesis that the rules are followed, the test of being followed is identical with a test of a descriptive definition. In the following we shall therefore limit ourselves to discussing descriptive definitions and synonymity hypotheses in general.

There are important properties of normative definitions other than that of being followed or not followed. We may ask: Is the normative definition fruitful (convenient)? The criteria and concrete testing of answers do not belong to elementary analysis as here conceived, however.

V. ELEMENTARY ANALYSIS

Difficulties of testing descriptive definitions are caused, among other things, by the following shortcomings: insufficient preciseness, specification, and elaborateness of

1. indications of definiendum,
2. indications of definiens, and
3. indications of intended field of application.

Even if we suppose that we have methods of raising the level of preciseness, specification, and elaborateness as much as we wish, there are still difficulties to overcome owing to

4. lack of knowledge about the denotation of the definiens (for example, objects denoted by the definiens), and
5. lack of knowledge about objects denoted by the statement of the intended field of application.

We may, of course, classify difficulties in other ways. As indicated in the preceding section, we have to assume that we know the beliefs of the author of a text. In the case of Fisher, we shall have to assume that we know the beliefs of businessmen. Difficulties arise from ignorance about the authors and from an inability to handle the many auxiliary hypotheses that must be evaluated before we can conclude, «Confirmative instance!» or «Disconfirmative instance!».

V.18. Definiendum Indications: Their Lack of Preciseness and Elaborateness

As mentioned previously, there is seldom only one expression functioning as the definiendum expression. Usually, it is tacitly understood that ordinary dictionary equivalents in foreign languages are to be included in a class of expressions functioning as definiendum. Sometimes, broader and less specified classes are included.

Seidel's list of eighty-three «*Satzdefinitionen*» (see page 215) is not limited to quotations in which the expression «*Satz*» occurs as the definiendum expression. Such a limitation would be rather arbitrary in relation to

the purposes of his list. Among the definiendum expressions, we find «Satz», «Sätze», «oratio», «sentence», «propositio», «enunciatio», «Grundform des elementaren Satzes», «Rede», «frase», «phrase», and «logischer Satz».

There are hundreds of so-called «definitions of truth», and their definiendum is hardly ever «truth». Occasionally, it seems as if the definiendum is not conceived or defined as an expression or class of expressions, but as a «notion» or «idea», or even a class of inorganic bodies. In such cases it must be asked, How is the definiendum expressed? The answer is, By means of words *such as* «true», «truth», and so on. These expressions are—in accordance with our terminology—the class of definiendum expressions. If no definite expressions are presented, there can be no normative or descriptive definition. A descriptive definition is an attempt by means of the definiens expression to indicate as exactly and precisely as necessary, for given purposes, what is expressed by the definiendum expressions. The definitions as descriptions describe the use of these expressions (for example, describe what sense they have, what they express). The material is usage in the form of *instances of use*, not primarily rules of use or definitions. The elementary analysis cannot presuppose that such rules and definitions are known.

When some philosophers state that they intend «to define truth», this does not give us any precise indication of what is conceived as definiendum. Not only «true» and «truth», but possible synonyms in foreign languages are thought relevant. Moreover, expressions such as «false» and «incorrect» are to some extent brought into the discussion.

Further, and this is very important, it seems as if a statement such as «Caesar died in the year 44 B.C.» is somehow thought relevant. This is perhaps because it is taken for granted that the author writing this sentence could just as well have written «*It is true* that Caesar died in the year 44 B.C.». In general, statements in textbooks are thought relevant. This is, however, a sort of anticipation from the point of view of analysis. It is one of the points to be reached as a possible conclusion, that «true» is used in such a manner that any assertion claims something that may be expressed by the word «truth».

It seems probable that *if* Bradley (see page 264) had specified which expressions he intended to speak about (for example, if he had specified his definiendum expressions), it would appear that he was talking about different things. His definienda would not be the same class of expressions. The

V. ELEMENTARY ANALYSIS

same, I suppose, would be probable in many other cases. As long as there is no agreement about what the disputants choose as the definiendum, there will be no discussion, but just declamation about things that might happen to coincide, but also might not.

I have herewith the pleasure of inviting the reader to find possible definienda on the basis of the following utterances of truth specialists:

«*Denn Wahrheit ist nichts anderes als ---*» (B. Erdmann).

«*Wahrheit eines Urteils besteht darin, das ---*» (ibid.). Meant as a synthetic theory, not a descriptive definition?

«*Die behaupteten Urteile, deren wir uns als gültige bewusst sind, nennen wir wahre im allgemeinsten Sinne des Wortes*» (ibid.). Note the indication of intended field of validity.

«*The truth of the sign consists of its adequateness ---*» (Fleming).

Real truth is, therefore, the correspondence of ---» (Hamilton).

«Hence *the definition of truth* which modern philosophy proposes: the agreement of ---» (Hodgson).

Truth means nothing but this, that ---» (Dewey).

«Ich glaube, *das Wort Wahrheit* in seinem gewöhnlichsten und natürlichsten Sinne *bezeichnet* ---» (Shute). Note the indication of range of application.

Perhaps many people are sure that these philosophers speak about the same thing. But I venture to predict that if the philosophers were invited to pick out from a given text instances that confirmed their theses, they would not agree as to which expressions were relevant. As long as there is no explicit delimitation of the class of expressions intended to constitute the definiendum, no hypothesis with scientific pretensions can be formulated. The extensive disagreements among philosophers make such explicitness highly desirable.

In other discussions, ambiguities as regards the indication of the definiendum are still more palpable. In the literature of symbolic logic, there is much talk about implication, and many attempts at definitions with descriptive pretensions. In such cases, what is the definiendum? If the expression «if --- then» in scientific literature is taken as such an expression, many definitions, for example, those derived by means of a matrix, meet

with grave difficulties. If «if --- then» or «implies» in scientific literature is not taken as definiendum expression, what is then taken as definiendum?

It seems improbable that discussions on «the meaning and symbolization of implication» can be fruitful without a more precise indication of what the discussion aims at. One of the things to be done here is to clarify whether one wishes to give the definitions of «implication» any descriptive function, and if such a function is aimed at, to choose a class of expressions acting as definiendum.

V.19. Definiens Indications: Their Lack of Preciseness and Elaborateness

If the definiens expression in a descriptive definition is not described fairly precisely or if it is not a fairly precise expression, then nothing definite has been asserted and nothing definite can be tested. If we succeed in delimiting the ten most plausible interpretations $U_1 \dots U_{10}$, our conclusions may run as follows: «if by U is meant U_1 , the synonymity hypothesis expressed or implied may be viewed as strongly confirmed; if U_2 is meant, it may be viewed as neither confirmed nor disconfirmed, ---; if U_{10} is meant ---».

Suppose we single out 100 controversial statements all of which can be given the form « T 's have the property ---» (for example, «Democracies are ---»). If, now, a definiens formulation of T permits as plausible directions of precization $U_1, U_2, \dots U_{10}$, the ambiguity of the definiens might be tolerated if the 1,000 statements created by using $U_1 \dots U_{10}$ instead of T in the 100 controversial statements would not result in a new distribution of acceptances and rejections among the disputants.

The importance of the difference between harmless and harmful ambiguities of definiens is aptly suggested by Schumpeter (1942: 243):

Equating «making decisions» to «ruling», we might then define democracy as Rule by the People. Why is that not sufficiently precise? It is because it covers as many meanings as there are combinations between all the possible definitions of the concept «people» (demos, the Roman *populus*) and all the possible definitions of the concept «to rule» (*kratein*), and because these definitions are not independent of the argument about democracy.

Instead of a single definiens expression, there are usually several. For each, there is a separate field of application tacitly assumed or explicitly

V. ELEMENTARY ANALYSIS

mentioned. In such a case the question arises of whether the various definiens formulations form a list of heteronymous expressions. If they are not fairly precise, we cannot treat them as expressions of different «senses» of the definiendum.

These weaknesses would make subsumption analysis impossible, because nothing definite is provided under which to subsume. We can only resort to systems of if-statements. When there are many definiens expressions, however, the construction of such systems is apt to require too much work relative to our need to test the synonymy hypothesis. We are thus led to give up the test or to make an unsatisfactory, incomplete one. It would seem to be in the interest of the future development of elementary analysis as a science to give up the test, in such cases, and reject the synonymy hypothesis as unworkable, that is, as being too ambiguous for use.

Consider the following situation. At a conference on standardization of terminology within political science, it is proposed that the scientists stick to the «correct» use of the word «democracy». To clarify what concept of «correctness» is implied, the conference decides to stick to the definition of the expert in linguistics, Otto Jespersen (1922). He says, «Our conceptual delimitation (*Begriffsbestimmung*, *begrepsbestemmelse*) of the correct as applied to language (*det spårkriktige*) is ---, that it is the socially accepted (*samfunnsmessige*), that which is required by the language community. What is opposed to that is incorrect from the point of view of language. And if this delimitation is maintained consistently (*skarpt*), then really all is said that needs to be said».

Now, let us suppose that some of the rival interpretations of «democracy» are put forth by their advocates. How can we attempt to subsume the usages under the definiens of 'correct as applied to language'? What is meant by «required by the language community»? Is the requirement of a language community different from the requirements of its members? If so, how am I to find out the community requirement? Are the requirements somehow detected inside usages, or have they the form of logical constructs?

So little is indicated by the quoted definiens expression that there is scant reason to bother with lists of precizations, and without such lists, subsumptions would be highly arbitrary.

The list of formulations on truth on page 288 exemplifies a low level of preciseness as regards definiens. In the discussion about the so-called «defi-

nition of truth», the expression «truth» is extensively commented on. Several directions of precization are found to be plausible. In spite of this, there are still published statements on truth with crude definiens formulations obscuring the discriminations already adopted by others. In such cases, the statements seem to us to be devoid of research value. The following examples do not belong to the statements with the most indisputable ambiguities.¹⁶

1. «Ein Urteil darf «wahr» genannt werden, «wenn feststeht, dass es sich immer und unter allen Umständen verifizieren wird»» (Moritz Schlick).

From the context, it may perhaps be inferred that Schlick here refers to sentences that *by definition* are given the «truth value» «true». Thus, for example, «It is Monday today or it is not». Basic ambiguities of philosophical importance are associated with the words «*darf*», «*feststeht*», «*Umständen*» and «*verifizieren*». Possibilities of subsumption on the basis of well-established auxiliary hypotheses are scant. The term «*darf*» makes it difficult to determine whether an N- or a Ds-definition, or a combination, is intended.

2. «Ein Urteil ist wahr, wenn es einen bestimmten Tatbestand eindeutig bezeichnet» (Moritz Schlick).

In the definiens formulation of this definitoid statement, the expressions «*Tatbestand*» and «*eindeutig bezeichnet*» are especially difficult to interpret so as to make subsumption possible. There are a great number of directions of precizations, some of which have been adopted by Schlick's critics, and others by his sympathizers.

3. «Das Kriterium für die Wahrheit oder Falschheit des Satzes liegt dann darin, dass unter bestimmten (in den Definitionen angegebenen) Bedingungen gewisse Gegebenheiten vorliegen oder nicht vorliegen» (Moritz Schlick).

In this sentence the expressions «*Bedingungen*», «*Gegebenheiten*», and «*vorliegen*» make it difficult to carry out subsumption.

4. «When we say: something is true, we mean that «it agrees with observed facts» (Bertrand Russell).

The ambiguities of «agree with», «observed», and «fact» have been extensively discussed. Such a formula has no research value un-

less we precize it in one of the directions already indicated in past and contemporary discussions among philosophers and scientists. For purposes of popularization it *may* have some value. Even that seems implausible, however, because even among persons who have never read a philosophical text (except perhaps some parts of the Bible) there is some tendency to ask for precizations. I think the tendency—which is not prevalent among them—should be encouraged by offering them fairly precise formulations.

5. «A form of words is true if a person who knows the language is led to that form of words when he finds himself in an environment that contains features that are the meaning of those words, and these features produce reactions in him sufficiently strong for him to use words that mean them» (Bertrand Russell).

The extensive discussions going on among professional philosophers indicate that the discussions are not thought of as discussions about alternative formulations of one and the same proposition (statement), but about different statements on one and the same issue. They are conceived as rival «theories», perhaps rival theories about usage and about characteristics deducible from usage. On this point there are, however, divergent views and considerable lack of preciseness.

To test the so-called «truth theories» conceived as descriptive definitions, we prepared a list of about 8,000 occurrences of «true», «truth», «truly», «*vrai*», «*vérité*», etc., in scientific literature. The next step was to inspect the definitoid formulations on «true», «truth», etc., in the light of these instances. Let us consider an example picked out at random:

L. V. Pirsson says in his *Textbook of Geology* (1924), «The actual rate at which geological work is accomplished, from the human standpoint, is, in general, very slow. Of course, in some cases, as where in a volcanic eruption, a very large amount of matter is suddenly transferred from the inside to the outside of the earth, the work done is not only evident, but startling. The same would be true for instance in the case of heavy landslides. But, in general, the amount of work done at this rate is small, compared with that accomplished, much of it imperceptibly, most of it so slowly, that it is only in viewing the results achieved that we can *truly* judge of its extent». . . . «The erosive power of a current varies as the square of the velocity, with

equal size and distribution of particles. That this is true may be easily proved.»

The juxtaposition of instances such as these of the use of «true» with definitoid formulations reveals so many difficulties of subsumption that we may wonder how philosophers can have taken seriously the discussion about so-called «theories of truth».

V.20. Indications of Field of Application: Lack of Preciseness and Elaborateness

Dictionary meanings are usually presented with rough indications of intended field of application for each meaning. Some definiens expressions are listed as meanings. What is asserted about them might perhaps be expressed thus: «every single instance of T (definiendum) is synonymous with one and only one of the members of the following heteronymous list of expressions: U_1, U_2, \dots, U_n ». Thus, the lexicographer perhaps intends to assert that the definiens expressions taken together have a total field of application that is vaguely limited, but he does not intend to trace out the field for each definiens expression U_i . This means that one cannot use the list to interpret any found instance of T. The only thing we may infer about the instance is that it is synonymous with one of the members of the definiens list.

Usually the lexicographer probably intends to make less pretentious assertions, for example, that in certain representative classes of texts, most of the meanings of the expression T are indicated roughly by the definiens expressions $U_1 \dots U_n$. Sometimes it is explicitly stated that the total field is not equal to the total class of occurrences of the definiendum. Thus, in the *Dictionary of Philosophy and Psychology* (Baldwin 1960) we read, «In political and ethico-political reasoning, different meanings of freedom may be distinguished: (a) a nation is said to be free when not under the rule of another nation, or when not subject to a tyrant who is above law. (b) ---».

In the article on «vague» in the *New English Dictionary* (Murray 1884–1928), one reads, «1. *Of statements, etc.*; Couched in general or definite terms; not definitely or precisely expressed: deficient in details or particulars. 2. ---. 9. ---». Looking through the nine dictionary meanings listed, we find that «statements» are not mentioned except under item 1. From this

V. ELEMENTARY ANALYSIS

we may infer that the three synonymity hypotheses under item 1 have a *total* intended field of application covering all cases in which «vague» is used as a predicate of «statements». The «etc.» may indicate that the hypotheses cover a somewhat larger, not specified field.

The absence even of implicit indications of intended field of application for each definiens in ordinary dictionaries makes most entries fall outside the domain of normative and descriptive definitions, but not outside the scope of hypotheses about synonymic alternatives. Entries in technical dictionaries and statements found in scientific and philosophical literature fairly often contain traces of indications. We shall mention some examples.

Bryce's definitoid Statement No. 7 (quoted on page 250) implies that «in its old and strict sense» «democracy» denotes («connotes» in our terminology?) «a government in which the will of the majority of qualified citizens rules, ---». We may interpret Bryce's formulation to imply the following: «Sometimes «democracy» is used synonymously with «a government in which the will of the majority of qualified citizens rules, ---». The class of instances covered by this definiens expression is the class of old instances that also is the class of strict instances.» Thus interpreted, the expression «old instances» indicates the field of intended application. This is a somewhat imprecise and vague expression! The expression «strict» seems to be even less apt to function as an indication of field of application because no criteria of strictness are given. Given an instance, how am I to decide whether the instance is within the field of application delimited as the field of strict application? «T means U within the field of strict use, and the use of T is strict when T means U.» Such tautologies do not help us in subsumption analysis.

Here are some definitoid formulations that can be so interpreted that they give rudimentary or tautological information about the intended field of application:

1. «*Right*. (1.) --- *Philosophically or ethically* the term is often used to apply to benefits or privileges that the individual or group feels that it ought to receive from society or from the world at large ---» (Fairchild 1957).

«Philosophically» may mean «as used within philosophical discussions» or it may mean «when used in philosophical senses»

(or it may, of course, mean something else). In the first case, a somewhat more helpful suggestion for subsumption analysis is made than in the second case.

2. «*When we speak of the democracies we mean those countries where the governments ---*» (Blaich and Baumgartner 1966).
«We» may refer to the two authors, T. P. Blaich and I. C. Baumgartner, and the «speaking» may refer to the book from which the quotation is taken—but presumably a larger field is intended.
3. «*In a wide sense, democracy means a kind of society or way of life, one of the main characteristics of which is equality: ---*» (Wade 1946).

The information intended to be conveyed is, perhaps, only the information, first, that there *exist* occurrences of the term «democracy» such that it means the same as «a kind of society ---», and second, that if different concepts of democracy are classified in terms of richness in connotation, the one mentioned belongs to the rather poor ones. Nothing is thereby said about how to recognize the occurrences that are examples of the wide sense mentioned.

It is, of course, not contested that information about the existence of certain usages often helps us to understand a text, but such statements about usage should not be identified with descriptive definitions. In descriptive definitions the subject matter must be somehow delimited independently of the definiens indication. If it is not, the statement may be formulated thus: «occurrences of class G of the term «a» are such that «a» is synonymous with «b»». The first part of the formulation introduces a reference to a field of application, but it is, in the last part of the sentence identified with the field in which definiendum is synonymous with definiens—an instance of *circulus in definiendo*.

About «equivocate», the *Oxford Dictionary* includes, among other things, «4. In bad sense: to mean one thing and express another, to prevaricate». The subsumption analyst will here have to go into complicated problems of ethics. In the article on «vague» in the *New English Dictionary*, one reads, «2. *Of words, language, etc.* not precise or exact in meaning». At first glance, the field indication of this definitoid formulation may seem fairly precise, but as quoted on pages 293–94, the field of application related to sense number 1 is «Of statements, etc.»; and that of sense number 3 is «Of

V. ELEMENTARY ANALYSIS

ideas, knowledge, etc.». How are we to distinguish these fields? It seems natural to elaborate the «etc.»'s of the three field indications in such a way that they overlap. If there are no field indications specific to each sense listed, each hypothesis of synonymy becomes indefinite as regards its scope.

More precise is the following field indication: «democracy—in *political science*, that form of government in which the people rules itself, ---». The indications of intended field of application in the statements of Bryce listed on pages 249–50 are all more or less difficult to use in concrete cases. Some of them seem to imply that the field is the total class of instances of «democracy», but such pretensions seem preposterous and are not in harmony with my high opinion of James Bryce. This makes me reject synonymy hypotheses implying such fields. If that interpretation of Bryce is rejected, however, we are left with such a multiplicity of approximately equally plausible interpretations that it is hard to make a choice.

The importance of fairly precise indications of intended field of application does not need to be argued in detail. Lack of preciseness and elaborateness makes it necessary to add to subsumption hypotheses «*if* the occurrence is one covered by the synonymy hypothesis». The confirmatory or disconfirmatory weight cannot be judged as long as we cannot decide in most cases whether an occurrence of an expression belongs to the class of occurrences intended to be covered by the definition.

V.21. A Vicious Circle Created by Interpreting Definiens on the Basis of Examples Offered in Support of Normative and Descriptive Definitions

Subsumption analysis soon reveals that presumably intelligent and competent subjects are astonishingly uncritical when they read texts containing definitoid statements and applications of those statements. The uncriticalness seems so great that it is necessary to try to find special reasons for it. Herman Tønnessen (1948) worked out questionnaires that included small texts in which definitions were used. Some of the texts were worded as follows: «The word «typical» seems to be used in different ways. Occasionally it is used in the sense of «frequent», as, for example, in the sentences: ---.---». He inserted sentences that made it preposterous to believe that the word was used as indicated in the text. Nevertheless, there was a tendency

among the subjects to agree to the subsumability. Some questionnaires were constructed with questions such as «Do you think «a» is a good or bad example of «b» being used in the sense of «c»?» They revealed lack of definite criteria of subsumability.

According to Tønnessen, one of the main reasons subjects' uncritical attitude toward definiens formulations, and the subsumption of occurrences under the definiens concept, is their tendency to interpret the definiens formulation in the light of subsequent occurrences of the definiendum expression. Thus if «type» is defined, and the author uses the sentence «a is a type», the subjects change their interpretation of the definiens formulation if the properties they attribute to a seem not to allow subsumption if they stick to their initial interpretation. They dare not rely on their initial interpretation of the definiens. This procedure radically destroys the function of the definition: instead of giving us precise hypotheses and norms for usage to be tested by observing usage, the definitional formulation is looked on as a formulation the meaning of which is to be understood by means of the use of the definiendum within the field of application. As a result, there is a tendency to accept uncritically whatever subsumptions are explicitly or implicitly asserted.

The uncriticalness toward definitions is partly fostered by a bad tradition within elementary analysis. To quote Tønnessen (1948: 42; my translation):

It is current analytical and lexicographical practice to slur over the difficulties of subsumption by avoiding explicitly mentioning whether exemplifications are meant to be didactically useful illustrations of a definite theory of usage or whether they are meant to furnish material for a decisive verification of the theory. This brings the proponents of the theory into a favorable position from the point of view of tactics in controversies. The favorable position enhances the self-deception concerning the unassailability of the theory—without improving appreciably its tenability in practice. «To bring out more precisely what I mean, I shall give an example ---» is a stereotype cliché. Under such circumstances, the readers tend to perform the subsumption easily because the choice of example influences the interpretation of the described usage [the definitoid formulation] in such a way that it nearly by definition implies the subsumability of the example. This is then taken to support the tenability of the theory [the Ds-definition] as a symptom that the theory covers the field of application represented by the «example».

V.22. A Vicious Circle Created by Interpreting Occurrences (Instances) Offered in Support of a Synonymity Hypothesis on the Basis of That Hypothesis

The uncritical attitude toward definitoid formulations suggestive of descriptive definitions seems also to owe in part to a tendency within lexicography to describe instances (occurrences) halfway as didactical illustrations and halfway as confirmatory instances. Because of the vague, incomplete, and imprecise way in which the instances are offered, readers use their interpretation of the definitoid formulation as a basis for their interpretation of the instances (occurrences).

The incompatibility of this circle with scientific methodology may perhaps be illustrated as follows. Suppose a zoologist suddenly announces that five species of a genus of animals must be distinguished, and not just two as has been done so far. He then gives a definitional description of the five species, adding a brief description of animals of the five species. Now, any zoologist interested in testing the five-species hypothesis would probably request specimens of animals classified into the five classes, or at least descriptions sufficiently precise and elaborated for him to make a decision about subsumability. He would most emphatically reject the possibility of verification by interpreting the words used in descriptions of specimens in the light of the five-species hypothesis. Let us suppose the description of a specimen of species number 4 includes the vague phrase «very long bones» and that the testing zoologist finds fifty senses of the phrase that, if one of them were intended, would support subsumability under species number 4, and fifty senses that would not support subsumability. It would undermine zoology as a science if the testing zoologist concluded «Confirmatory instance!» on the basis of the fifty interpretations that make the vague phrase «very long bones» fit the definitional description of species number 4.

Even in the, presumably, most authoritative dictionaries and encyclopedias, it is often not clear whether quoted passages are meant as occurrence sentences that support a synonymity hypothesis or whether they are didactical illustrations. Moreover, when the quotations are clearly to be understood as examples of subsumable occurrences, it is often not clear whether the authors mean that every instance of the quoted expression gives subsumable occurrences or whether the expression only sometimes has the

sense described. If it is only meant that it sometimes has the sense, and sometimes not, it is very difficult to test the hypothesis.

Some lexicographers may be very clear about what they intend, but in no lexica or dictionaries have we so far been able to find fairly precise descriptions of what they intend. This seems to be an important source of the prevailing uncritical attitudes toward «dictionary meanings».

In concluding this chapter, we might once more indicate the nature of subsumption analysis and the difficulties involved in its implementation: the observational material of subsumption analysis is made up of definitoid formulations and occurrences of expressions presumed—on the basis of more or less confirmable and confirmed hypotheses—to fulfill the requirements of being definiendum expressions in the definitoid formulations.

The subsumption analysis consists in attempts to solve in a fairly reliable way questions of the following kind: is the observed occurrence a_1 of a definiendum in conformity with, or in disconformity with, or irrelevant in relation to, the definitoid formulation «b» interpreted in the way «c»?

As a special case, we have the question of whether an author follows his definitions.

From philosophical and other literature one gets the impression that conclusions in the field of subsumption analysis are thought to be easily obtained. By pointing to some of the difficulties encountered in trying to reach conclusions, the preceding sections have perhaps contributed to dispelling that impression.

The next chapter, «Occurrence Analysis», deals with a more comprehensive subject, which includes subsumption analysis. The problem will be: given a set of occurrences of a designation or a sentence, can a usage characterization be found such that it can account for the occurrences as subsumable under the characterization and such that (in certain types of cases) prediction can be made of future occurrences?

The main difference between subsumption analysis and occurrence analysis is that in subsumption analysis we start from given definitoid statements, whereas in occurrence analysis the construction and reconstruction of definitions are part of the job to be done.

VI

Occurrence Analysis

A. Occurrence Analysis Characterized

VI.1. Introduction: Meaning Revealed by Use

It is a valuable slogan that to find the meaning of a term, one should not *ask* about it but observe what people *do* with it. From the use of the term, as observed in concrete situations, the linguist is believed to «see» what it means or to «infer» its meaning by clear-cut methods.

Bronislaw Malinowski, the anthropologist, plunges into the activities of the natives, accompanies them on their fishing trips, listens to their shouts during work requiring cooperation—and he *understands* what they say.¹

Whereas Malinowski sees meanings by enjoying life in the South Pacific, P. W. Bridgman «sees» the meanings of physical terms by looking at physicists handling measuring rods and other laboratory equipment. Bridgman's maxim is also to disregard the explanations that physicists give of their terms and to look closely instead at how they use them, or to observe «which operations they mean». Bridgman and others seem to catch meanings of terms by direct awareness of behavior. There is very seldom any description of *inferences* from described observations of behavior to meanings.

The reasons for not taking ordinary people's or politicians' definitions of terms seriously are too well known to warrant explicit formulation. But there are also well-known reasons not to trust experts. Einstein disregarded Newton's normative definitions of «space» and «time» and studied the use of time and space designations in concrete research situations, especially in situations in which physicists confirm or disconfirm hypotheses involving measurements of time and distance. The transition from analysis of defini-

VI. OCCURRENCE ANALYSIS

tion to analysis of use is a primary concern in analytical philosophy as well as in scientific methodology.

The slogan that to find meanings one should observe what people *do* with terms rather than listen to people's answer to questions about how they use them is valuable insofar as it undermines the belief that we always follow our normative definitions, or always *can* follow our (vague) normative definitions, or always are capable of making tenable descriptive definitions of terms we use.

In this chapter some features of analysis of use are systematically described. First of all, it has been our aim to give explicit form to procedures that so far have been carried out without being described and evaluated as to their validity and presuppositions.

Our aim is to concentrate on cognitive meanings of abstract terms and therefore to develop a technique for constructing and testing descriptive definitions of use. To limit our task to manageable proportions, we shall not discuss ostensive definitions and related problems, but mainly look for meaning by analysis of occurrences of terms in *texts*.

One of the chief imperfections of traditional attempts to find meaning by «seeing how a term is used» is the tendency to keep secret just *which occurrences of the term* are covered by the analysis, and which are the *auxiliary hypotheses* made use of in each case to arrive at the conclusion that a definite occurrence of a term conforms to the adopted definitional description of use.

If, in the future, thorough methods are developed for finding meanings from observation of use, then the insistence on exposition of minor research activity units, such as inferences from quoted individual occurrences, may safely be left out; however, the confused state of affairs in semantics makes broad explicitness a necessary condition for progress.

The importance of connecting hypotheses about usage with definite, quoted, or otherwise described instances of the term whose use is under investigation, has motivated us to call the quest for reliable hypotheses of usage by analysis of occurrences by the name «occurrence analysis».²

VI.2. Natural Occurrences and Artificially Produced Occurrences

The occurrences taken into consideration by lexicographers before they formulate their dictionary meanings are mostly occurrences in printed texts.

The works of some representative authors are gone through and all occurrences of certain terms are listed, usually together with the immediate verbal context.

In the case of slang dictionaries and others dealing with highly fluid language structures, there is a greater tendency to ask users to articulate their meaning: «what do you mean by ---?»; «how do you use ---?»; «is this a word for thief?»; and so on. Or, more indirect methods are used: «how would you translate --- into ---?»; «what do you call this thing ---?»; «what do you see there?»; and so on.

In the latter cases the immediate verbal context, and sometimes the psychological and social situation, is deliberately controlled with a view to producing occurrences of special interest and importance. When occurrences are produced in this way, we shall speak of «artificial» occurrences and distinguish them from «natural» ones.³

In a completely general description of a usage, the cases of artificial occurrences are intended to be covered by the description. There are occurrences that, strictly speaking, are not produced by those who answer questions of the kind mentioned above, but nevertheless are imputed to them. If the analyst asks, «Do «a» and «b» in this text express the same cognitive meaning to you?», and «Yes» is answered, the very short answer is expanded into ««a» and «b» express the same, etc.», and an occurrence of «a» and «b» is put into the occurrence protocol.

If colored papers are placed before a test subject and he is invited to classify and name colors, the answers contain occurrences of color names that profitably can be made the basis of occurrence analysis. That the experiment may be intended for nonsemantical purposes does not preclude the pertinence of occurrence analysis to many conclusions traditionally based on the answers. When in experiments of psychological aesthetics, people are asked which shapes of triangles or other items they «prefer», some differences in answers can be taken as evidence of differing interpretations of «prefer» and other words in the questionnaire. If the respondents had interpreted the crucial terms in the same way, their answers might have been identical. Thus, interpretational differences may in many cases be of importance to the evaluation of conclusions about «which shapes are preferred». It is, however, usually ignored that such conclusions, and similar ones to any questionnaire whatsoever, have their semantical aspects, which, if ignored, render the conclusions scientifically of little value. The

VI. OCCURRENCE ANALYSIS

possibility that differences in answers may be attributable to different interpretations or different solutions of subsumption problems is taken seriously by only a small percentage of researchers using questionnaires.

The analyst presumes that all respondents interpret the questions in the same way that he does. All the advanced techniques by which attempts are made to eliminate this source of error are based on kinds of occurrence analysis. The basic hazards and difficulties of occurrence analysis are implicitly presumed to be mastered.

The use of occurrence analysis in psychological and social science techniques is not illustrated in this chapter. It deals more generally with those basic difficulties of occurrence analysis that must be overcome to make it a reliable tool in all sciences, formal and nonformal, social or nonsocial.

VI.3. Main Steps of a Standard Connotational Occurrence Analysis

1. Identifying and Specifying of Occurrences to Be Analyzed

To make a critical evaluation of methods of occurrence analysis feasible, we need a fairly precise description of possible methods. At this stage of preliminary research in semantics, it is not of prime importance that all details of the described procedures should prove fruitful. The description of details is important only to make sentences about occurrence analysis practically *testable*. It is the requirement of testability that makes us go into details in the following descriptions. We shall describe a procedure that we shall call «standard connotational occurrence analysis». It is meant to function as a sort of reference scheme in relation to which a great number of procedures may be described in a few words by reference to possible modifications of the standard.

Let us suppose that a class of instances of the use of a designation is given in the form of a list. In that list, each occurrence is numbered occ. 1 to occ. n and distinguished by a quotation giving the immediate verbal context, or by some details of the nonverbal situation. Somehow, the class of occurrences must be delimited in a way that makes it possible for different analysts to study the same occurrences. This is very simple if, for example, we can define the class as «the class of occurrences of the designations

«*demokratisch*» and «*Demokratic*» in the collected works (edition specified) of Karl Marx». To ensure that different researchers have their attention concentrated on the same occurrences, it is convenient to use a numbered list or card index of occurrences, regarded as complete. In the following, we presuppose that the occurrences made use of in a standard analysis are numbered. In Norway there is a card index covering all instances of all words used by Ibsen in his complete works. A great number of similar occurrence collections are available in various countries, but few are of interest to those studying technical terms and cognitive meanings rather than all kinds of functions of all kinds of words.

In jurisprudence it is often important to know where to find every occurrence of a certain term or expression that has been produced by certain individuals or institutions. Seldom, however, are complete descriptive definitions of use sought. It is usually sufficient to establish narrow subsumability hypotheses, a much less difficult task. Suppose there is a controversy about whether an action A is a case of 'murder'. If a defendant can convince the court that any acceptable use of «murder» is such that every act called an act of murder has the property B, and if he can also convince the court that A does not have the property B, then there is no need for the defendant to go into further analysis of use. It is of no use for him to try to convince anyone that a certain complete descriptive definition of murder is correct.

It is our view that the *first step* of an acceptable standard connotational occurrence analysis is the orderly arrangement of the class of occurrences to be analyzed.

To many it may seem pedantic to ask for better delimitation of a pretended field of application than that given by names of texts or authors, but expressions such as «Marx's use of the term 'democracy'» and «'democracy' as used in Aristotle's *Politics*, translated by Ross» are difficult to apply in concrete research work. If one attempts to construct easily testable hypotheses about usage on the basis of fairly well defined classes of instances of use, there must be indications about how to decide whether an instance of a term is an instance of a definite author's use.

Let us, as an illustration, suppose that we are interested in analyzing Andrej Y. Vyshinsky's use of the terms «democratic» and «democracy» in his *Law of the Soviet State*, translated by H. W. Babb. The first chapter of that book contains about sixty-five instances of the sequences of letters

VI. OCCURRENCE ANALYSIS

d-e-m-o-c-r-a-c-y and d-e-m-o-c-r-a-t-i-c, but in only about fifty cases should they—as far as I can judge—be classed as use occurrences of these terms. The others are found in quotations, or in other contexts suggesting that they are not meant to represent Vyshinsky's own usage. Thus, disagreement among analysts about his usage may in some instances owe to different rules for delimiting occurrences. This can be avoided by constructing a list of occurrences—a list of references to definite places in a text, or a list of sentences with page references. We have on page 334 offered a list of the latter kind.

2. *Listing Occurrence Implicates*

As a *second step* we take successively the first, second, and so on, occurrence sentences and ask for each, What can be inferred from this sentence, by simple means, about the cognitive meaning of the designation under consideration with a fairly high degree of certainty and without departing appreciably from the author's actual wording? What we answer to this kind of question is formulated under the heading «*occurrence implicates*».⁴

It is necessary in this procedure to take rather unproblematic and simple inferences first, because of the tremendous complexity and disheartening uncertainty of most inferences that are needed to reach reliable descriptive hypotheses of usage.

It is, of course, arbitrary, within certain limits, where we trace the line between implicates in the sense indicated and other inferences. This does not destroy the usefulness, however, of stating whether one views a suggested inference as an occurrence implicate or not. Ultimately, the distinction between occurrence implicates and other inferences is purely heuristic: we claim only that the distinction makes occurrence analysts less likely to succumb to uncritical guesses and the analysis easier to survey, to communicate, and, in practice, to test.

The procedure for formulating a preliminary system of occurrence implicates is most easily surveyed in the case of a more or less isolated text being analyzed, in which there are *n* successive occurrences: occ. 1, occ. 2, . . . , occ. *n*. By isolation, we here refer to (a) a real absence of detailed knowledge of the text's author or public, ignorance of external and internal circumstances of publication, and so on, or (b) a methodologically motivated decision to limit

argumentation (ad hoc or indefinitely) to arguments based on the text in more or less complete isolation from special information about the nonverbal context, and from verbal contexts other than the text itself. In the following discussion, for reasons of simplicity, the sentences that describe procedures refer to isolated texts, if nothing else is explicitly mentioned.

Let us consider some examples of kinds of inferences and their formulation:

Designations: democracy, democratic. Text: Vyshinsky, *The Law the Soviet State* (1948), translated by H. W. Babb. Occurrence: no. 21, page 43. Quotation from the context:

The essential and fundamental preeminence of Soviet democracy [occ. 20] consists in the fact that for the first time in history the nation itself truly carries state government into effect in its own interest, depriving exploiters of all their privileges and advantages. Herein is also the fundamental feature of Soviet State order (the only truly democratic [occ. 21] order) guaranteeing the satisfaction of all demands and needs, of all the interests and requirements of the popular masses of toilers.

Some suggestions for implicatures based on occurrence sentence 21:

1. As used at occ. 21 by the author of the text, the term «democratic» expresses something that makes it meaningful to say about a state order—in the author's sense of «static order»—that it is truly democratic, or that it is not truly democratic, or that it is democratic, or that it is not democratic.
2. As used at occ. 21 by the author of the text, all state orders except one are subsumable under the class 'not truly democratic state order'. Or, more accurately: as used at occ. 21 by the author of the text, the expression «state order» denotes—on the basis of the opinions Vyshinsky entertains about state orders—things that, with the exception of one, are subsumable under the class 'not truly democratic state order'.
3. As used at occ. 21 by the author of the text, «democratic» expresses something that makes it meaningful to say, «Soviet state order—in the author's sense of «state order»—is a truly democratic order» and «Soviet state order is not a truly democratic order».⁵

VI. OCCURRENCE ANALYSIS

4. As «democratic» is used at occ. 21, it is not only meaningful, but also expresses a tenable assertion according to the author to say that «Soviet state order is a truly democratic order»—on the basis of those opinions that the author entertains about what he calls «the Soviet state order». (The last phrase is of importance because Vyshinsky's assertion about the democraticity of the Soviet state order depends both on his usage and on his theory about how things are in the Soviet state. These two factors must in occurrence analysis be kept apart as clearly as possible.)
5. The signification of the term «democratic», as interpreted at occ. 21 by the sender Vyshinsky, and the opinions on state orders entertained by him are such that it is possible for one and the same state order—in the sense of the author—to have the two properties (a) being truly democratic in the sense of the author, and (b) guaranteeing the satisfaction of all demands and needs, of all the interests and requirements of the popular masses of toilers (all the terms being taken in the sense of the author).

The use of the expression «truly democratic» in occurrence sentence 21 is problematic: it is possible that it expresses a concept with the conceptual characteristics of 'democratic' plus some additional ones, or, that 'truly democratic' and 'democratic' each have at least one conceptual characteristic that the other does not have. In that case there may be truly democratic things that are not democratic, and there may be things found to be democratic that would not be truly democratic if certain additional characteristics were found. In the above implicates, it is assumed that if something, in the terminology of Vyshinsky, may be called «truly democratic», it might also (without logical contradiction) have been called «democratic».

It is tempting to infer from occurrence sentence 21 a closer relation between the two properties distinguished in implicate 5, but it is found convenient in a preliminary list of implicates only to include moderately reliable ones. A closer relation may be inferred from the total context comprising occurrence sentences 20 and 21.

The five implicates are all made on the basis of occurrence sentence 21. Other occurrences are not used in the premises of the implicates, nor is

special information used that could make the conclusions more precise or elaborate.

An indefinite number of inferences other than the listed ones might be added by careful analysis of all that Vyshinsky has said about subjects mentioned in the references. Thus, to implicate 1 might be added an accurate description of state orders on the basis of available information about Vyshinsky's opinions on state orders. According to implicate 1, state orders belong to the class of things that may be «democratic» in the sense of «democratic» intended at occ. 21. Thus, a description of Vyshinsky's classification of state orders is (if implicate 1 is valid) relevant to any hypotheses about the cognitive meaning of Vyshinsky's assertions of the type «x is democratic».

Similarly, Vyshinsky's opinions (at the moment of his sending occ. 21) about the Soviet state order are relevant in efforts to elaborate implicate 4. Just this richness in relevant issues makes it advisable to proceed from the narrower, more easily surveyable sources of information to the broader, less easily surveyable and describable sources. Therefore, step 2 in our procedure is delimited to the listing of occurrence implicates. If it is not, analysts can make no effective collective effort to arrive at well-established, precisely formulated hypotheses about usage.

Indirectly, any kind of knowledge may turn out to be important for the establishment of a descriptive definition. Therefore, if such a definition is put forth as valid without specification of sources of information, the immense fields of observations that possibly could confirm or disconfirm it are relevant to its evaluation. If two analysts arrive at incompatible conclusions about Vyshinsky's use of the term «democratic», it is of prime importance to rapid progress of research on the subject that the analysts can and do specify their premises and sources of information. As such a specification is particularly easy in the case of close inferences from occurrence sentences, we suggest that implicates be made to occupy a prominent place in a preliminary system of occurrence inferences.

The above-formulated inferences from occurrence sentence 21 seem to be sufficiently closely related to the sentence to warrant their classification as implicates. At a mature stage of the development of occurrence analysis, there will be room for a more precise classification of inferences based on a classification of the kinds of premises used.

VI. OCCURRENCE ANALYSIS

The listed formulations expressing the implicates from occ. 21 are all sentences with similar conditions listed. Standardized implicates can be formulated thus:

«At occurrence number x of the term «a», the author intends by the term something that makes --- subsumable under 'a', provided «---» is interpreted as does the author and provided he does not make false subsumption inferences».⁶

The cumbersome repetition of references to the author's usage at occurrence number x, and to the author's opinions about things denoted by certain terms, makes it convenient to abbreviate the occurrence implicate sentences.

Reformulated and abbreviated, the class of implicates from occ. 21 runs as follows:

- i₁: A state order may be democratic or it may not.
- i₂: There is only one truly democratic state order.
- i₃: The Soviet state order is a truly democratic order.
- i₄: A democratic state order may have the property of guaranteeing the satisfaction of all demands and needs, of all the interests and requirements of the popular masses of toilers.

If we are to avoid far-reaching misunderstandings and untenable implicates, it is of paramount importance to remember that these formulations are abbreviations by which essential references are left out.

Implicates 4 and 5 are here given the labels i₃ and i₄, because inference 3 has not been found sufficiently certain and interesting to be included in the definitive version of implicates of occ. 21.

The reason for the omission is not that number 3 is implied by number 4. If one or more implicates within a class are implied by another of the same class, this is not a sufficient reason to eliminate the weaker ones and retain the strongest, that is, retain the implicate implying the weaker ones. To make the logical relations—especially the consistency—between implicates of different occurrence classes easily surveyable, it is safe to split strong implicates into a series of weak ones, the conjunction of which is equivalent to the strong one. This does not, however, make it superfluous

to state the strong implicate. It is a bit of inferred information that has a stronger foundation in observation than an equivalent sentence constructed by weaker sentences if these are the only implicates at hand.

If the occurrence analysis is limited to a study of instances of a designation or sentence within a given text, the second analytical step is completed when, for each occurrence, there is listed a class for implicates.

It might be objected that the standard connotational occurrence analysis, as described so far, attaches too much importance to occurrences of the term investigated as compared with other words of the surveyed text.

This objection would be well founded if the number of sentences we, here in this exposition, use to describe the technique of implicate construction on the basis of occurrence sentences were to be taken as the measure of their importance. Actually, considerations of testability have made us stress the details of implicate construction on the basis of such sentences. As long as the ultimate goal is to construct valid descriptive definitions of usage, no other sentences than occurrence sentences are relevant except indirectly. If a text about democracy includes the occurrence sentence «Democracy is the rule by the people», a descriptive definition of «democracy» may conceivably be chiefly based on ninety-nine sentences containing the word «people» and only the quoted one containing an occurrence of the term «democracy». The relevance, however, of the ninety-nine other sentences is completely dependent on the one occurrence sentence. If that particular sentence had not been in the text, the connection between the use of the term «people» and that of «democracy» would no longer exist. The ninety-nine sentences would have no validating power whatsoever in relation to hypotheses about the use of «democracy».

Thus, the occurrence sentences occupy a unique position among the sentences of a text being surveyed. This should not lead, however, to an exaggerated view about the amount of evidence that can be collected without taking other sentences into account. The latter sentences may turn out to be far more important, but their importance owes to what we find formulated in the occurrence sentences.

If we were to turn away from descriptive hypotheses regarding the use of terms, and were to study the use of concepts, then occurrences of specific concept designations would not have a unique position. In that case, any term expressing the same concept would be equally relevant.

VI. OCCURRENCE ANALYSIS

3. *Interpreting Occurrence Implicates and Constructing Other Inferences*

An occurrence sentence may give rise to various conflicting, but plausible, interpretations. The translation into the vocabulary of the analyst and his readers implies use of interpersonal synonymity hypotheses. Observations and theories from the most dissimilar fields may be of importance to their tenability. This explains our stress on making an implicate list before interpersonal synonymity hypotheses are put forth. By making that list, we survey the context as a whole, and we concentrate our attention on the language of the author. Precocious hypotheses about exactly *what* the author intends to say easily develop into prejudices. Interpretation of implicates ought to be a third step of analysis, after one has been through the text at least once. Possibilities of interpretations are considered in reference to the text as a whole and to the implicate list.⁷

Let us consider the fifth occurrence sentence in Zaslavski's *La démocratie soviétique* (1946–47: 20):

Le régime soviétique est démocratique sous tous ses aspects, y compris son aspect économique.

An implicate:

1. Regimes may be classed into democratic and nondemocratic ones.

It might also be formulated that «Some or all democracies are regimes», but scarcely that «All democracies are regimes».

The last formulation furnishes us with a genus definition (see chapter 4, page 163). On the other hand, it presupposes that the transition from «democratic» to «democracy» is justifiable.

How is implicate 1 to be interpreted? The wording is in part borrowed from Zaslavski—from him stems the word «regime»—and in part we have used our own expressions.

Some difficulties arise from *uncertainty regarding how to interpret the sentence schema* consisting of all words of the occurrence sentence except the designation to be analyzed. The possibility must be reckoned with that two or more different interpretations T_1, T_2, \dots of each occurrence sentence,

A.VI.3. *Main Steps of a Standard Connotational Occurrence Analysis*

T_0 , have to be considered separately. Two or more corresponding classes of inferences should then be formulated for each occurrence sentence.

i_1 of T_1	i_1 of T_2	---
i_2 of T_1	i_2 of T_2	---
---	---	---

If most inferences of the various classes are identical or very closely connected, then the common or nearly common inferences may be retained in one class and the rest ignored. If inferences vary widely, the total class of classes may be unsurveyable, or at least it may be unfruitful to try to formulate it in detail.

If inferences are to be formulated in such a way that the analyst attributes a fairly precise meaning to them, this normally requires extensive re-formulation and elimination of terms used by the sender of the text. In implicate 1 the term «regime» is basic, but personally (as analyst) I do not attach a definite meaning to the term. An inference formulation that expresses a sufficiently precise meaning to me cannot contain the word «regime» as it occurs in implicate 1. If I eliminate the term, however, I must do so on the basis of solutions to the problem of how to interpret the sender of the text.

What does Zaslavski mean by a «regime»? This word as used by Zaslavski is ambiguous, and for each plausible strong precization, I would have to formulate specific inferences. On the one hand, a regime may be identified with a particular government; on the other hand, forms of government may be meant.⁸ Even forms of government and governmental practice may be meant («ancien régime»), so far as I know. The terms «government» and «form of government» are highly ambiguous and require elimination.

Ultimately, an occurrence analysis should furnish the analyst with inference classes containing formulations that are as precise as can be constructed without assuming a depth of intention that transgresses that of the sender. It is probably unwise, however, to try to map out directions of precization the first time a text is studied. The possibilities of precization are so manifold at the initial stages of study that one would be overwhelmed by inferences derived from different interpretations of one and the same implicate.

VI. OCCURRENCE ANALYSIS

The following rules are suggested:

1. The text author's expressions used in implicate formulations contained in the preliminary list of implicates are to be interpreted (by the analyst and his readers) as if *used by the author* of the text.
2. Inference formulations contained in the definitive surveys of inferences are to be interpreted in conformity with the *usage of the analyst*.

The latter rule does not (of course) imply that the analyst may indulge in his own terminological idiosyncracies: he should formulate the inferences in such a way that there is maximum likelihood that readers of the analysis who have been informed about the rule interpret the inferences as does the analyst himself. The reader of the occurrence analysis may therefore legitimately reason as follows: «if the analyst is competent, his wording of this sentence is such that I should be able to understand it as he intends—if I can class myself as a reader with such interpretational dispositions as are foreseen by a competent analyst».

It is not necessary for the analyst to interpret the system of implicate formulations with greater definiteness of intention than is required to justify their being inferred from the occurrence sentence. Because it is a characteristic of the implicate that it can be derived fairly simply, the amount of interpretation should be very small. A method of interpretational suspension is convenient and justified. To take an example: if an occurrence sentence reads, «What Smith says is perfectly correct; all democracies are colorless», I would not hesitate to construct the (abbreviated) implicate sentence «Democracies are colorless». This I would do in the preliminary implicate survey even if I had only vague ideas about what the text's author might mean by such a phrase—if *anything*.

It has in the foregoing been stated that the definitive system of inference classes should provide the analyst with formulations that are as precise as possible—within the limits of the depth of intention of the author of the text analyzed. In this respect, the aspirations of the occurrence analyst are different from those of the analyst trying to construct connotational or denotational explications (cf. chapter 2, section 3), or explications in the sense of Carnap (1950: chapter 1), or formalizations in the sense of Woodger (1939).

Systems of inferences in occurrence analysis are systems of purely descriptive, historical, biographical assertions. Written in full, an inference about the term analyzed is formulated so as to show this character: «as used at occ. i by the author x, the designation «a» expresses ---». Assertions of the kind

Syn (aP₁S₁, bP₂S₂)

are all of the biographical kind, provided P₁ and P₂ are specific individuals or groups.

The constructor of explications and formalizations needs occurrence analysis—but his final product has a normative character: the «definition» he gives may express a usage not exemplified in the past by anybody; it is a construct that may in the future prove convenient or not. Very often, it proves inconvenient or impossible to use, because, after all, to be used the definiens must somehow be connected with the vernacular. If the connection is such that vague and ambiguous phrases are used to explain the intended rules of use, then the explication or formalization may be misleading. Different researchers may easily get inconsistent results because of different interpretations of «*Zuordnungsdefinitionen*».

The very difficult task of going from the formulation of a preliminary system of implicates to the establishment of a definitive system is necessary to provide connecting sentences between explication or formalization and the vernacular or the nonformalized technical jargon of a scientific discipline.

So far, we have discussed the translation of occurrence implicates into the language of the analyst. During this stage of the work, it is convenient also to note any inferences from the occurrence sentences that have not led to occurrence implicates because of their uncertain or free character. Let us consider another passage from Zaslavski's *La démocratie soviétique* (1946–47: 33):

Démocratie [occ. 70] est le pouvoir du peuple. La démocratie [occ. 71] est l'antithèse de l'aristocratie, du pouvoir des nobles. La démocratie [occ. 72] est aussi l'antithèse de la ploutocratie, du pouvoir des riches.

Suggested inferences:

VI. OCCURRENCE ANALYSIS

1. A democracy in the sense of Zaslavski cannot possibly be identical with a society in which the nobles—in a sense of «nobility» used in bourgeois countries—have the decisive political power.
2. A democracy in the sense of Zaslavski cannot possibly be identical with a society in which the rich have the decisive political power.

These inferences are of some interest. They are too uncertain, however, to be classified as «implicates» and cannot be included in the preliminary implicate list. They are rather *interpretations* of the occurrence sentences that are inferred on the basis of uncertain hypotheses about what Zaslavski means by «antithesis», an important word in Marxist doctrines.

Now we turn our attention from the inferences explicitly based on occurrence sentences. The special properties of the occurrence implicates (see page 306) warrant discussion before other inferences are developed systematically. It is now convenient to note any inference whatsoever—short of complete descriptive definitions—that can be drawn from analysis of sentences in the text, whether those sentences are occurrence sentences or not.

The passage from Zaslavski quoted above strongly suggests the relevance for the analysis of the word «democracy» of inferences from sentences containing such words as «people» and «power». The following inferences from sentences in Zaslavski, page 33, are therefore important:

1. It was the people who exercised the power in the Athenian Republic.
2. The people exercise the power if the people have the custom of assembling at a public place and their representatives make decisions about the administration of the state by means of consultation and votes.

Figure 4 illustrates the step-by-step widening of the scope of analysis. Analytical step 4 is discussed in the next section (see page 319).

VI.4. Consistency Problems

The review of inference formulations in the light of the total context may result in reinterpretation of occurrence sentences and implicates and modification of inference classes. The theory of interpretational vibrations caused by broadening the context is relevant here (see chapter 2, section 13).

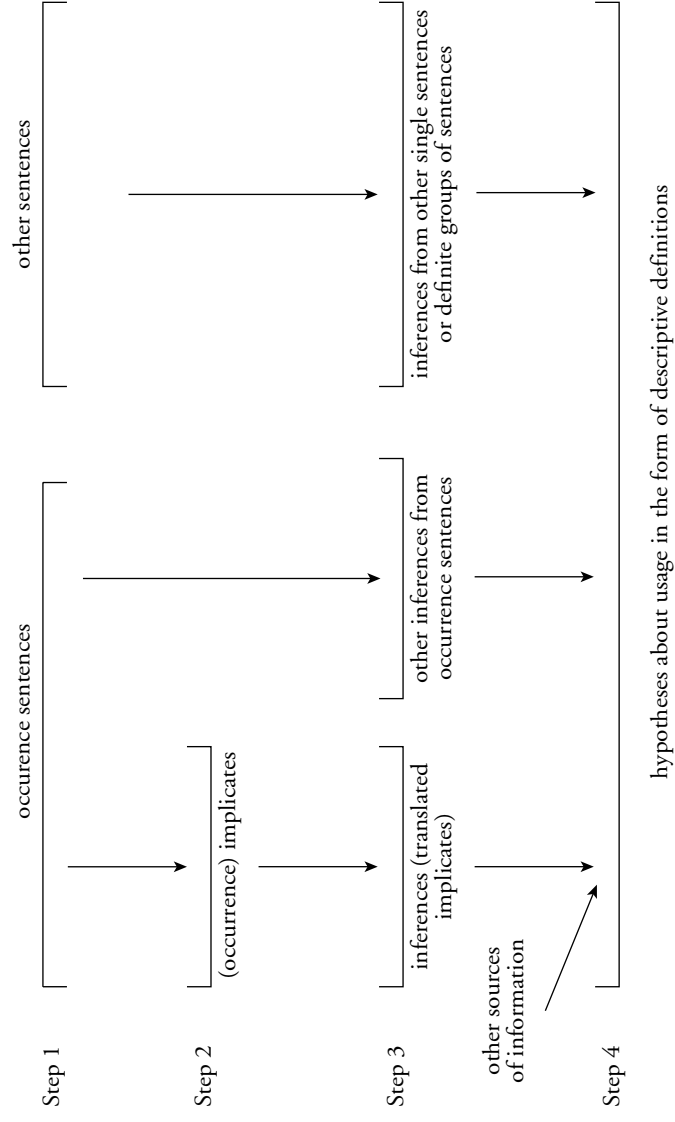


Figure 4. Steps in connotational occurrence analysis.

VI. OCCURRENCE ANALYSIS

As soon as more than one of an author's sentences have been translated into the vocabulary of the analyst and his readers, a new set of problems can be attacked: that of the internal coherence and consistency of a set of assertions. Can they be integrated into a consistent doctrine? What are the relations within the total body of assertions made by the author? The result of inquiries into consistency and coherence may be such that initial translations are doubted and new ones attempted. The total body of assertions changes for every reinterpretation and creates fresh consistency problems.

Logical or empirical (synthetical) inconsistencies (see chapter 5, section 8) between conclusions in inferences from the implicates or directly from occurrence sentences are of some importance. Suppose a designation at its occ. *i* is used in such a way that an assertion 'a' seems to be implied, but 'non-a' seems to be implied by occ. *j*; that is, suppose there seems to be a logical inconsistency implied by the joint assertion of two parts of the same text. This may be taken as a symptom of

1. use of the designation at occ. *i* in a sense different from any that would imply 'a' or use at occ. *j* in such a way that 'non-a' is not implied, or
2. untenable auxiliary hypotheses used by the analyst, or
3. logical inconsistency on the part of the author.

If the weight of the evidence supports symptom 2 better than it supports symptoms 1 and 3, a revision of the system of inferences is called for. The new system may, of course, contain fresh inconsistencies, but we may safely assume that repeated reviews will decrease their number and seriousness.

If symptom 1 seems most probable, and thus the author seems to be using a designation in two ways, this makes it necessary to construct two descriptive definitions to be used in the next version of the translated occurrence sentences.

By empirical inconsistencies we refer to the appearance of two (logically consistent) implicates 'a' and 'b' of such a kind that there is a body of assertions 'c' (presumably) adhered to by the author as a body of empirically tenable assertions, and this body of assertions makes 'a&c' logically inconsistent with 'b', and 'b&c' logically inconsistent with 'a'. for example:

Implicate 'a':	No monarchy can be democratic.
Implicate 'b':	Norway is democratic.
Assertion 'c':	Norway is a monarchy.

Examples of assertions cannot be given without using sentences. In the above example, «Implicate 'a': No monarchy can be democratic» can be read as «implicate 'a': the assertion that the analyst expresses by the implicate sentence «No monarchy can be democratic»».

If, and only if, one may assume that the author of the text at the time of formulating the occurrence sentences entertained the opinion that Norway was a monarchy, then there is empirical inconsistency between the implicates 'a' and 'b': they cannot both as conceived by the author analyzed.⁹

Empirical inconsistencies may be taken as symptoms of the three conditions mentioned. There is, however, the additional source of uncertainty represented by the assertion 'c': Is it safe to assume that the author believed in 'c' when writing the occurrence sentences from which 'a' and 'b' are derived? How do we know?

In the above exemplification of 'a' and 'b', the expression «a» for 'a' is not satisfactory as a member of the definitive system of inference sentences. In the preliminary system, it may be useful, in spite of the ambiguities of «monarchy»; but in the definitive one, it is important to know whether, for example, «limited (constitutional) or unlimited monarchy» is meant by the analyst, or maybe «unlimited monarchy». If 'a' is reexpressed as «No unlimited monarchy can be democratic», and 'c' is reexpressed as «Norway is a constitutional monarchy», no synthetical inconsistency arises.

The definitive system of inference classes ought to be arranged in such a way that internally consistent classes can easily be surveyed and thus made the basis for construction of hypotheses about usage in the form of descriptive definitions.

4. Forming and Testing Hypotheses About Usage in the Form of Descriptive Definitions

An occurrence analysis is called «connotational» if the final step is an attempt to establish complete hypotheses of use in the form of descriptive definitions. Such hypotheses may, for example, have the following form:

VI. OCCURRENCE ANALYSIS

«The author N. N. uses the designation T_0 to mean the same as:

1. T_1 when using T_0 at occurrence numbers --- of the text F,
2. T_2 when using T_0 at occurrence numbers --- of the text F, etc.»

The designations T_1, T_2, \dots are here definiens formulations of descriptive definitions, with T_0 as definiendum and a certain class of occurrences as the intended field of application.

As an example of hypotheses of use that are not in the form of descriptive definitions, and therefore are not representative of conclusions in connotational occurrence analysis, we mention the following genus definition sentence:

«Aristotle used the designation «democracy» to mean a kind of government, not a kind of society».

By such a sentence something is asserted about the use of a term, but not in the form of a descriptive definition. Nothing is said about what kind of government «democracy» is used to designate.

The tentative descriptive definitions are, in principle, guesses or assumptions guided by the implicates and whatever evidence is at hand, and not sentences derivable by logic from the system of implicates or from any established theory of human verbal behavior. To «see» that a designation or sentence is used in a certain sense by «looking at» the context is a metaphor that well depicts a common attitude of optimism in matters of semantics. It stems perhaps from the frequent cases in which we are pretty sure that either T_1 or T_2 is meant by T_0 ; no other possibilities may be expected. Any symptom that T_1 cannot be meant will in that case make us postulate that T_2 is the correct interpretation. The general situation is usually such that no great level of preciseness is required. Occurrence analysis is, on the other hand, first, an instrument by which to find out about cognitive meanings without presuming to already know approximately where to find the solution, and second, an instrument by which to test tentative solutions derived by mere guessing.

Against the thesis that there is never a relation of strict or material implication between classes of implicates of occurrence sentences and descriptive definitions, two objections deserve to be mentioned. The first may be phrased as follows:

«If a man introduces a normative definition of a designation and pro-

claims all his future texts to be the field of application, he may well forget his intention and violate his own definition the next moment. But in the definition itself he at least uses the designation as defined. Thus, from the occurrence sentence consisting of the normative definition itself, the appropriate descriptive definition can be inferred without chance of error—the definiens of the descriptive definition that solves the problems of the occurrence analysis under the specified conditions is the definiens of the normative definition.»

Our answer is: If a person introduces a normative definition by which a T_0 is defined by a T_1 (the definiens), the occurrence of T_0 as definiendum in the normative definition is not an instance of T_0 being «used», but of T_0 being talked about. It belongs to the metalanguage. If T_0 in the normative definition were intended to be interpreted as T_1 , the normative definition would be the rather trivial «By T_1 I shall in the future mean T_1 ».

A second objection runs as follows: «Suppose an author intends by the designation «the Scandinavian countries» to express the same as «the countries Sweden, Denmark, and Norway» within a given context. Now, if the implicates found by occurrence analysis are «Sweden is a Scandinavian country», «Denmark is a Scandinavian country», «Norway is a Scandinavian country», and «There are three and only three Scandinavian countries», then the definiens of the correct descriptive definition is *derivable* from the conjunction of the implicates».

It is admitted that if I had the above system of four implicates, I would be very sure that «the Scandinavian countries» was used as mentioned. It is important to note, however, that my conviction would not stem from inspection of the system of four implicates. These four implicates are also compatible with the assumption that the author by the designation «the Scandinavian countries» meant «countries the kings of which were in 1940 more than six feet tall» or «constitutional monarchies the most southern points of which are more than 50° north of the equator».

There are also other considerations that throw light on the untenability of the objection and its basic misconceptions. The so-called «implicates» of the last sections are—as mentioned—not implicates in any of the senses of modern logic. From the implicate «Sweden is a Scandinavian country», nothing about the *intention of the author* of the occurrence sentence can be derived. Whatever I say, it cannot *by logic alone* be inferred what

VI. OCCURRENCE ANALYSIS

I intend by my words. To avoid some of the misconceptions that arise from underestimating the distance in meaning between conjunction of occurrence implicates and descriptive definitions, we must bear in mind that the usual manner of formulating those implicates owes to an abbreviation of rather complex formulations (see pages 309–10).

For many purposes it is of slight importance to know exactly what an author intended (if anything at all). In that case one may close the occurrence analysis when it is found that all descriptive definitions of a certain class of similar definitions are consistent with all the occurrences under investigation.

Let us take an example just to illustrate how we need occurrence analysis to find a class of descriptive definitions consistent with the occurrences in a text. Suppose we are interested in the creation of a fairly exact introduction to the mathematical theory of matrices. By «matrices» we do not need to mean anything very definite at the initial stages of the investigation. We simply begin reading various mathematical texts that claim to deal with matrices. Among the many authoritative texts, we find the work of Frazer, Duncan, and Collars (1938). One of our problems will be, Should we accept these authors' concept as the most exact and fruitful basic concept of our own account? One of the first things to do, then, is to see how the authors explicitly define «matrix». The work opens with a sentence that strongly suggests a normative definition:¹⁰ «[m]atrices are sets of numbers or other elements which are arranged in rows and columns as in a double entry table and which obey certain rules of addition and multiplication» (ibid., p. 1).

There are no other sentences that suggest a normative definition. The sentence, whether intended as a normative definition or not, would probably suggest to many readers that the simplest matrix would be one in which there were just enough elements to allow a distinction between vertical and horizontal arrangement. This would suggest an arrangement with four elements, such as (1) below, or an arrangement with three elements.

Readers who from the quoted sentence inferred that the authors intend to use the expression «rows and columns» in such a way that one may in every matrix distinguish rows from columns, would get into difficulties of interpretation when they reached page 2 of the text. There the authors speak about «a matrix with only a single row of elements». A matrix with

only one column of elements is also mentioned (*ibid.*, p. 2). Now, the plural in the introductory sentence («rows and columns») might plausibly be interpreted to imply that any set of elements consisting of fewer than two rows and two columns could not possibly be a matrix. The occurrences on page 2, however, strongly suggest an interpretation such as «A matrix is a set of elements arranged in rows or columns or both (and in that case as in a double entry table)—the limiting case being one row or one column, ---».

The following sets of elements would then be matrices in the sense suggested by the occurrences on page 2:

$$\begin{array}{lll} \text{(1)} & \begin{array}{l} a_1 \ b_1 \\ a_2 \ b_2 \end{array} & \text{(2)} \quad a_1 \ b_1 \qquad \text{(3)} \quad \begin{array}{l} a_1 \\ b_1 \end{array} \end{array}$$

Case (1) would also be a matrix in the sense suggested on page 1, with $a_1 \ b_1$ and $a_2 \ b_2$ being two rows, and $a_1 \ a_2$ and $b_1 \ b_2$ being two columns.

On page 6, however, the authors state that a certain «product» of two matrices is a matrix with only one row and one column and being identified with only one element, for example, identical with the element a_2 in matrix (1). A single element like a_2 is, according to what is said on page 6, a matrix. To speak of this single element as being arranged in a row or a column goes against the usage suggested by the opening sentence. The occurrences of «matrix» on pages 2 and 6 are such that no normative definition that is supposed to cover those occurrences can imply the possibility of a distinction between row and column within any matrix.

From these occurrences on pages 2 and 6, we conclude: on the assumption that the introductory sentence is a formulation of a normative definition with the whole text as part of its intended field of application, the introductory sentence is an example of a formulation that for some plausible interpretations furnishes normative definitions *not* consistently followed in the intended field of application.

In such a case, an occurrence analysis is warranted, which can result in descriptive definitions such that all or nearly all occurrences of the text are subsumable. The construction of a suitable normative definition proceeds on the basis of descriptive definitions obtained by occurrence analysis. In the above example, a mere glance at the occurrences on pages 2 and 6 of the text probably suffices, for readers accustomed to mathematical devices

VI. OCCURRENCE ANALYSIS

of concept formation, to make them infer that the authors intend a concept 'matrix' of a rather broad kind. No elaborate occurrence analysis is called for.

It is common to undertake an analysis with a prejudgment in favor of normative definitions that *resemble as closely as possible the unfollowed one*. Not making such a prejudgment leads to complicated observations and inferences as described in the exposition of the standard connotional occurrence analysis.

The shortened analysis does not differ from an ordinary subsumption analysis in other respects than that modified definitions are constructed on the basis of the definition originally given.

Now, if our task is to formulate a fairly exact account of matrices, we shall probably try to make the account include most or all sentences in the cited text dealing with properties of matrices of various kinds. There is no chance, however, that occurrence analysis will be able to furnish a concept of matrix implied by the occurrence sentences. It is, for example, possible to use (a) a concept by which rules of multiplication of matrices are contained in the concept of matrices as conceptual characteristics, or (b) a concept by which such rules are not part of the concept. Further, it is possible to use (c) a concept such that inkblots may be elements of matrices, or (d) a concept such that inkblots cannot be elements.

All theorems in the cited work can—as far as I understand it—be retained as theorems in accounts that have such different concepts at base. Frazer, Duncan, and Collars themselves introduce a very general concept as regards what can be elements (including inkblots), but they offer no theorem about kinds of elements other than numbers and, perhaps, letters.

Inspection of the definitive system of inferences suggests to the analyst the direction in which adequate descriptive definitions may be found. He will tentatively formulate such definitions and try to test formulations. The test consists in trying to determine whether the occurrences are subsumable under the descriptive definition, that is, whether the definition «suits» the instances intended to be covered. One must take each occurrence sentence, use the implicates with their translations, and substitute the definiens of the descriptive definition for the definiendum occurrence. Such a test is, of course, not independent of the assumptions made at the first steps of occurrence analysis. It can only help the analyst, because he

A.VI.5. *Relation Between Practical Testability and Intended Field of Application*

usually cannot have all occurrences in mind when framing the tentative descriptive definitions.

The questions of subsuming instances under the definiens of tentative definitions are those of subsumption analysis mentioned in chapter 5, part C. Subsumption analysis is, in other words, one of the tools of connotational occurrence analysis.

The first steps of occurrence analysis are, on the other hand, necessary steps in subsumption analysis, if we ask for subsumability of a series of occurrences of an expression. The differences between connotational occurrence analysis and subsumption analysis may be formulated thus:

1. Subsumption analysis starts with an explicitly formulated normative or descriptive definition that is *given in advance*. Occurrence analysis starts with occurrences and aims at well-founded descriptive hypotheses that are not given but must be constructed.
2. In both subsumption analysis and connotational occurrence analysis, the examination of occurrences normally results in either confirmation or disconfirmation. If the verdict is disconfirmation, subsumption analysis ends, whereas the next step in occurrence analysis is the search for a modified descriptive definition that is not disconfirmed in relation to the occurrence.
3. In subsumption analysis, a conclusion that all occurrences under consideration are subsumable is an ultimate conclusion. In connotational occurrence analysis, the conclusion that all descriptive definitions of a certain class are equally warranted is not an ultimate conclusion. There is still the question, Which occurrence, if any, expresses the intended use of the text's author?¹¹

VI.5. Relation Between Practical Testability and the Extent of a Hypothesis's Intended Field of Application

If a hypothesis about the use of a term, let us say a descriptive definition of the use of the term «democratic», is so formed that its intended field of application comprises all occurrences up to 1950, it can, in principle, be confirmed or disconfirmed in relation to a vast number of occurrences. If, on

VI. OCCURRENCE ANALYSIS

the other hand, the descriptive definition's intended field of application is narrowed down to only one occurrence, let us say to occ. 5 in Zaslavski's text, the practical possibility of testing it is limited to this occurrence, which is only an infinitesimal fraction of all occurrences up to 1950. The vulnerability of the descriptive definition is in this case very much smaller, but so also is its capability of being confirmed. Normally, the test will prove inconclusive because of lack of evidence.

If we try to test a descriptive definition on the basis of a very small number of occurrences, it is highly probable that we shall succumb to the temptation to use as auxiliary hypotheses conclusions obtained from acquaintance with other occurrences. The limitation of occurrence analysis to a definite set of occurrences is very difficult to carry through, and it is utopian to believe in strong confirmations or disconfirmations on its basis. Consider the student of so-called national character. He may *pretend* to base his conclusions on definite tests applied to a small number of people, whereas he in practice largely bases them on general impressions and on current stereotypes concerning the alleged national character.

For methodological reasons, hypotheses intended to cover a large group of occurrences are preferred (other things being equal) to hypotheses covering a small group, because of *the greater testability* of the former.

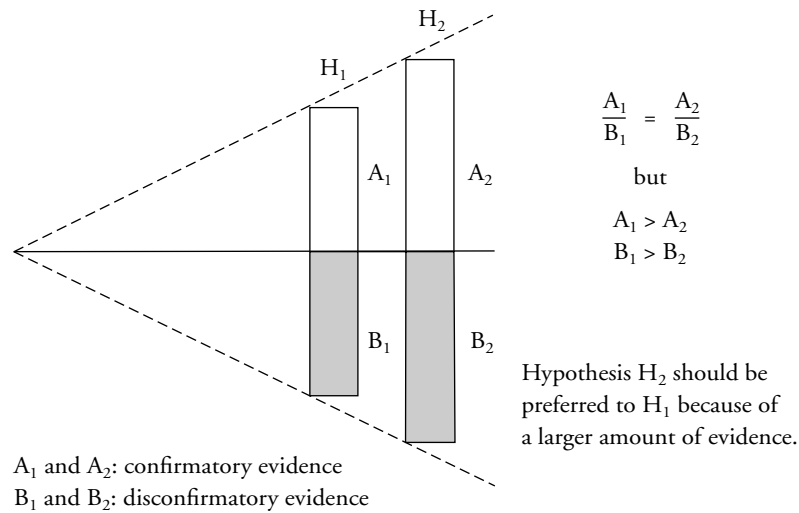
Suppose a text contains 200 occurrences of «a», and two hypotheses are put forth, one covering all occurrences, another covering only a part. There is a greater chance of building up occurrence inferences suggesting descriptive definitions by means of all occurrences than by means of a part. Thus, there is more material by which to test a descriptive definition claiming to cover all occurrences.

Suppose, however, as is done in the case of occ. 5 in Zaslavski's text (see page 312), that there is some evidence that «democraticity of the economic aspect» means «openness to inspection and discussion of the economic life», and that there is a later occurrence suggesting with the same amount of evidence that the designation at occ. 5 is used in a certain broader sense. Should we then prefer the hypothesis that the expression is used in one sense in both cases or the hypothesis that it is used in two different senses, one narrow and one broad?

The answer would be that *if the evidence is stronger* for the hypothesis implying two senses, then it should be preferred. I do not see, however, that

A.VI.5. *Relation Between Practical Testability and Intended Field of Application*

this can easily be the case, and the explanation is in part found in preceding references to small practical testability. To make the point clearer, we symbolize the amount of evidence by the height of rectangles:



When we prefer the narrow definiens expression «openness to inspection and discussion of the economic life», our preference can be explained, I think, partly by a commonly observed overestimation of the immediate context in judging meanings and partly by expectations derived from occurrences in other texts. The plausibility of this explanation may be illustrated by looking at the following occurrence of the word «steep»:

«Mount Everest is steep. On no mountain is there such a uniformity in the angle of inclination of the rocky slopes».

It would be rash to conclude from the immediate context of the first sentence that the author by «steep» means «uniformity of inclination of angle», and as applied solely to rocky slopes, not to ice. The second sentence is probably not meant to be synonymous with «No mountain is as steep as Mount Everest», which might be inferred if the above rejected hypothesis were tenable. The second sentence would probably have to be taken as an argument supporting a thesis on steepness that is broader than a thesis on the *uniformity* of inclinations of rocky slopes.

VI. OCCURRENCE ANALYSIS

Other examples might be adduced that illustrate how the immediate context can be deceptive and how expectations may easily be overlooked as a factor determining one's judgment of degrees of confirmation. From previous use of «steep» I would tend to expect broader concepts than the one hastily inferred from the immediate context. That makes me not take that context very seriously as an indicator of the meaning of «steep». In the case of the immediate context of the designation «economic aspect of democracy», some analysts may expect meanings close to those suggested by the immediate context, whereas others may recall other occurrences that make them attach low value to the evidence of the immediate context.

An objection might be, How can the above complicated, highly speculative, uncertain argumentations and illustrations be taken as the basis for rejecting one hypothesis of usage as false and accepting a competing one as true? To this it may be answered that there is no question of taking one as true and rejecting others. In the field of elementary analysis, we may try to single out one hypothesis as the *most* tenable among a group of hypotheses, but this does not preclude the requirement that other hypotheses be considered nearly as tenable. In argumentations and plans of actions based on the conclusions, all the hypotheses above a certain level of tenability must be kept in mind. Furthermore, we often lack the necessary basis for picking out one hypothesis as the most tenable within a group, because the components or factors determining tenability are complex, and sometimes only crude oversimplification makes it possible to arrange hypotheses in a one-dimensional order indicating tenability. It must also be borne in mind that, for many practical purposes, we need no clear-cut hypotheses on connotation if many instances of use of the expression are well known to us. We may talk about democracy in a way approved of by our environment without bothering about what the designation means in the sense of connotation.

It might be thought that in occurrence analysis one should first concentrate on finding the meaning of a designation within very small groups of occurrences, and then look for possibilities of meanings common to greater groups. Thus, one would proceed from hypotheses involving the possibility of ambiguity to hypotheses representing attempts to find common meanings that can bridge apparent ambiguities.

The close relation between number of occurrences and practical testa-

bility severely limits such a procedure. On the other hand, the possibility that each new occurrence represents a new sense cannot be ruled out, nor should the possibility be overlooked that the designation under analysis may not have any meanings at all in the sense of cognitive meaning. The designation may have only extracognitive meaning or may be used with such a low definiteness of intention that even rough delimitation of connotations is practically impossible.

VI.6. Limited Choice Analysis

Under the name «limited choice analysis» we shall describe a kind of analysis that is not a standard connotational occurrence analysis, but that can be carried out as a partial or simplified one.

A hypothesis of one of the following kinds is postulated, or accepted on the basis of evidence of one kind or another:

- (1) « T_0 has the connotation T_1 or T_2 or . . . or T_n .»
- (2) « T_0 has the connotation T_1 or T_2 or . . . or T_n or none.»
- (3) « T_0 has a connotation with small or no meaning distance from T_1 or . . . or T_n .»

In short, limited choice analysis proceeds from a postulate or initial assumption about which possibilities are at hand. This causes the analysis ultimately to break up into a *limited* set of subsumption questions, which may all be given the form «Is T_0 subsumable under a descriptive definition with T_a as definiens?»

Let us suppose that a preliminary analysis on the basis of hypothesis (1) gives as result that T_0 is subsumable under both T_1 and T_2 . The weight of evidence is in that case reexamined on the assumption that T_0 has either the connotation T_1 or the connotation T_2 . Any difference in weight will decide the issue. In a standard connotational occurrence analysis, such a simple decision would never be warranted.

Let us, on the other hand, assume that a first analysis on the basis of hypothesis (1) gives as result that T_0 is subsumable under none of the connotations T_1, T_2, \dots, T_n . A reexamination of evidence on the basis that one of them nevertheless *is* the connotation, will tend to justify that one is picked out at least as the one that is most likely to be correct. Such a procedure is

VI. OCCURRENCE ANALYSIS

inconsistent with the principles of standard connotational occurrence analysis. According to those principles, no limited group of possibilities can be postulated.

Much lexicographical work seems to proceed as a limited choice analysis rather than as a standard occurrence analysis. Sometimes explicitly, but usually implicitly, it is taken for granted that T_0 «must» mean something like T_1 or T_2 or . . . T_n .

The possibilities of choice are determined by transformation (translation) hypotheses, syntactical considerations, or hypotheses about which objects have a name. A limited choice analysis may, or may not, in practice be identical with a portion of a complete connotational occurrence analysis. The first steps of an occurrence analysis may suggest choices of definiens expressions used in a limited choice analysis and may help one decide between the alternatives. But as the term «limited choice analysis» is used here, the analyst may not make use of any steps of occurrence analysis, but immediately proceeds to try out subsumptions on a more or less intuitive basis.

I am not suggesting that limited choice procedures are «bad»—only that it is important to make explicit the assumptions or postulates that from the very beginning of the procedure limit its scope. In any analysis, only a limited number of subsumption attempts can be carried through.

Therefore, even in standard occurrence analysis only a limited number of possibilities can be tried out. The difference lies in the fact that, in the complete analysis, no assumptions are made that limit the claim of the conclusions. Compare the following two kinds of tasks: to decide whether a text, *assumed* to be written by either Bacon or Shakespeare, was written by Bacon or was written by Shakespeare; and to decide—without any a priori assumptions about authorship—who has written the text. We can in both cases try out only a limited number of authors, but evidence sufficient to decide the first case may not be sufficient to decide the second with an equal degree of certainty.

Given a group of occurrences, occ. 1–occ. n , of a designation T_2 , let us suppose it is somehow definitively known that all occurrences are occurrences of one and the same connotation T_1 .¹² Whatever the number or kind of occurrences given, there will always be connotations T_2 . . . T_m that are

such that $\text{occ. } 1 - \text{occ. } n$ are subsumable under them. However much we increase m , there will always be a T_{m+1} for which this holds good.

Although there is reason to believe this theorem, it would have to be precized to reach a satisfactory level of practical testability. Efforts to limit the possibilities in standard connotational occurrence analysis, other than by postulating limits, have never succeeded, and I see no reason why they ever should succeed.

The theorem might be called the «*theorem of unlimited possibilities of subsumption*». It is analogous to the theorem that whatever the number of points dotted on a plane surface, as long as the number is finite, there are always infinitely many different curves that can be traced through all the points.

VI.7. Analysis of Single Designation on the Basis of Hypotheses About Structure

To find «the» connotation of a designation by occurrence analysis, one must—even in the case of «pointings» («*This is . . .*»)—formulate hypotheses about the meaning of the context. It is often stressed that one cannot find connotations except within a system or structure of connotations. This is all very well, but what if no one knows the structure?

At present, there is a rough, programmatically adequate working knowledge of important meaning relations in nearly all languages that have written literatures. As long as rough, low-level knowledge is sought, it is justifiable to rely heavily on existing vocabularies and grammars. If, however, finer shades of meaning and definite occurrences are of interest, let us say occurrences in a definite natural science text, then such a reliance involves working with prejudices that might completely destroy the analysis.

Among the things to be noted about vocabulary meanings of «unusual» words (for example, technical ones) is that they are often mere definiens formulations found in some technical text. Typically, the formulation is taken out of its context without consideration of the changed meaning it thereby will acquire. Or the formulation may be changed to avoid long phrases, cumbersome restricting clauses, and so on. Often, no occurrence analysis, or even limited choice analysis, has been made: one

VI. OCCURRENCE ANALYSIS

may say that questionnaires with one respondent, the lexicographer, have been used.

The more existing occurrence analyses there are, the less we may expect on the average to need to perform new ones. However, because languages are rich in designations, and rich in meaning-relevant contexts, progress must be slow. So far, narrow practical purposes have limited the quality of the work. Occurrence analysis of *sentences* is even slower to develop; very little has so far been done in that field.

B. Illustration of a Connotational Occurrence Analysis

VI.8. Delimitation of the Class of Occurrences to Be Analyzed

The following analysis has two aims: to illustrate distinctions, concepts, and theorems introduced in preceding chapters; and to describe by means of an example the kind of analysis that might be called «standard connotational occurrence analysis», since we search for complete connotations in the form of descriptive definitions.

The epithet «standard» is used to indicate that the steps recommended in the analysis are not the only possible ones, but delimit a kind of norm.

We have already referred several times to a booklet that we shall now use to exemplify connotational occurrence analysis, the booklet by D. Zaslavski called *La démocratie soviétique*, officially translated into French by J. Hepner and incorporated in the *Editions sociales* for 1946.¹³ The book covers certain aspects of the USSR, chiefly those under discussion when comparisons between the USSR and Western countries are undertaken.

Zaslavski is one of the editors of *Pravda* and has been prominent among the propagators of Communist ideology. His book is preferred to the works of Lenin or Stalin as an object of analysis because in the latter works, the term «democracy» occurs relatively seldom, whereas in Zaslavski's text of 107 small pages, it occurs 192 times. This high number of occurrences and the high relative frequency make it convenient for our purposes of illustrating the methods and difficulties of connotational occurrence analysis.

Our main objective will be to try to find out what, *if anything*, Zaslavski means by the words «democracy», «democratic» (etc.), by exploring his use of those words within the booklet. Evidence from other sources

will indirectly be taken into account, but no occurrences other than those in the booklet will be consulted.

The class of occurrences to be analyzed is the class of instances of the words

<i>démocraties</i>	<i>démocratiques</i>	<i>antidémocratiques</i>
<i>démocratie</i>	<i>démocratique</i>	<i>antidémocratique</i>

The text analyzed is that of Zaslavski, including its headings and the title on the book's title page. Any instance of «*démocratie*» (etc.) as a separate sequence of letters will be counted, regardless of the nearest letter sequence. Thus, in the expression «*la démocratie soviétique*», there is an occurrence. Whether the author might conceive «*démocratie soviétique*» as one indivisible designation is not taken into account in listing the occurrences. The possibility that «*démocratie*» is never used as a complete designation is, however, of importance to the conclusion. It might imply that «*démocratie*» is never intended as a concept designation. To express concepts, Zaslavski might use only complex designations such as «*démocratie soviétique*» and «*démocratie bourgeoise*».

The above indication of which occurrences our main hypotheses claim to cover is not sufficiently accurate to make it possible to class all text units into two separate classes, occurrences and nonoccurrences. There will be doubtful cases. The best method would be to offer a copy of Zaslavski's booklet as an appendix and to number every occurrence meant to be included.

In the absence of such an appendix, we offer a list (table 2) showing the pages on which occurrences are found. Clear-cut metaoccurrences are not numbered. Instances that can plausibly be interpreted as metaoccurrences, and plausibly as use occurrences, are numbered. The bulk of the numbered occurrences are clear-cut use occurrences.

VI.9. Implicate List

In the following pages I have not placed «democracy» in *guillemets*. The term recurs a great many times, and *guillemets* merely lengthen the text without introducing appreciably more clarity. I have therefore decided to write, «The designation «x» is used of a certain kind of democracy» instead of «The designation «x» is used of a certain kind of something that (by the author of the text analyzed) is designated by the term «democracy»».

VI. OCCURRENCE ANALYSIS

Table 2. Occurrence List of «Démocratie», etc., in Zaslavski

Occ. No.	Page	Occ. No.	Page	Occ. No.	Page	Occ. No.	Page.	Occ. No.	Page
1	5	51-	30	meta	36	meta	50	178	72
2	12	56	30	94	36	154	50	179	78
3	12	57-	31	95-	37	155	51	180	79
4	12	64	31	104	37	156	51	181	83
5	20	65	32	105-	38	157	51	182	89
6	22	66	32	113	38	158-	52	183	95
7-	23	67	33	114-	39	161	52	184	97
14	23	meta	33	121	39	162	53	185	99
15	24	68-	33	122-	40	163	53	186	101
16	24	72	33	127	40	164	53	187	103
17-	25	meta	33	128-	41	165	54	188-	106
24	25	73	33	133	41	166-	57	191	106
25-	26	74	33	134-	42	170	57	192	107
31	26	75-	34	141	42	171	58		
32-	27	82	34	142-	43	172	58		
40	27	83-	35	146	43	173	59		
41-	28	91	35	150	44	174	59		
44	28	92	36	151	47	175	69		
45-	29	93	36	152	48	176	69		
50	29	meta	36	153	48	177	69		

Note: A hyphen indicates all occurrence numbers falling between the number that precedes the hyphen and the number that follows.

Thus, even if we write «democracy» without guillemets, we do not ipso facto admit that the word belongs to our own vocabulary. We reproduce a designation used by others. What it designates is an open question for us as analysts; it belongs always to our metalanguage, never to our use language.

Occs. 2, 3, and 4 are found in a paragraph that may profitably be quoted in full:

Certains des nouveaux Etats surgis après le Traité de Versailles firent preuve de manque de stabilité et de solidité. Ils s'octroyèrent des Constitutions démocratiques [occ. 2] du dernier modèle, des Parlements, des suffrages universels et des programmes de vastes réformes sociales. Cependant, des discordes in-

testines firent bientôt leur apparition dans ces nouveaux pays, où des coups d'Etat amenèrent l'abandon des Constitutions démocratiques [occ. 3] et l'établissement des régimes les plus antidémocratiques [occ. 4] et même les plus réactionnaires. Telle est, par exemple, l'histoire de la jeune République polonaise, ainsi que d'autres pays comme la Yougoslavie, la Bulgarie, la Roumanie et la Hongrie. (Zaslavski 1946–47: 12)

Proposed implicates of special interest:

- i₁: Constitutions can be classed into democratic and nondemocratic ones.
- i₂: Democratic constitutions can be the latest models or older models.
- i₃: Regimes can be more or less antidemocratic.
- i₄: After the Treaty of Versailles, the countries Poland, Yugoslavia, Bulgaria, Romania, and Hungary adopted constitutions that were democratic; the democratic constitutions were of the latest model.
- i₅: Later, these countries abandoned the democratic constitutions and established the most antidemocratic regimes.

Occ. 5 reads, «Le régime soviétique est démocratique sous tous ses aspects, y compris son aspect économique» (ibid., p. 20).

Suggested implicates of special interest:

- i₆: Regimes may be classed into democratic and nondemocratic ones.
- i₇: The Soviet regime is democratic.
- i₈: Regimes may be democratic in various aspects, and can be democratic in some and nondemocratic in others.
- i₉: One of the aspects is the economic aspect.
- i₁₀: The Soviet regime is democratic in all aspects.

Occ. 6 comes after the sentence «La vieille société féodale ne voulut pas non plus reconnaître la société capitaliste et bourgeoise» (ibid., p. 22). The occurrence sentence reads, «La démocratie du peuple français au XVIII^e siècle était également une «énigme» pour le roi et la noblesse».

VI. OCCURRENCE ANALYSIS

Occurrence implicates of interest:

- i₁₁: There was a democracy of the French people in the eighteenth century.
i₁₂: That democracy was an «énigme» for the king and the noblemen.

Occs. 7–11 are all within one paragraph:

Les derniers temps, on entend les étrangers s'interroger beaucoup au sujet du système d'administration soviétique, au sujet des Soviets. On se demande ce qu'il représente. On dit que ce n'est pas de la démocratie [occ. 7]. On ne se contente pas de le dire, mais on le crie. On ne fait pas que le crier, on le hurle. C'est surtout cette partie de la presse opposée à toute démocratie [occ. 8] qui s'y évertue particulièrement. Elle devrait, semble-t-il, se réjouir que, de son point de vue, le pays soviétique ne constitue pas une démocratie [occ. 9]. Mais cette presse, qui est représentée en Amérique par Hearst et C^{ie} et en Angleterre par les conservateurs les plus réactionnaires est la plus effrénée à accuser le pays soviétique qui, voyez-vous, n'est pas une démocratie [occ. 10] et auquel il faudrait interdire l'accès au sein des puissances démocratiques [occ. 11].
(Zaslavski 1946–47: 23)

Suggested implicates of special interest:

- i₁₃: Outside the Soviet Union a part of the press is opposed to all democracy.
i₁₄: It is the part of the press that is especially eager to announce that the Soviet Union is not a democracy.
i₁₅: It is in the United States represented by Hearst & Co.
i₁₆: It is in England represented by the most reactionary of the conservatives.¹⁴

For the sake of brevity, implicates are in the following listed without direct quotation.

Occ. 17 (page 25):

- i₁₇: There is something new about Soviet democracy (compared with previous and other democracies).

Occ. 18 (page 25):

i₁₈: History did not know of a democracy such as Soviet democracy before the birth of the Soviet state.

Occs. 22–23 (page 25):

i₁₉: Countries can be classed as democratic and antidemocratic.

i₂₀: By the Second World War it was clear which countries were democratic and which were antidemocratic.

Occ. 24 (page 25):

i₂₁: The Second World War was a war of the democratic peoples against fascism.

Occ. 28 (page 26):

i₂₂: It is the hatred of democracy that is the common feature of the fascist states.

Occ. 29 (page 26):

i₂₃: Hitler and Mussolini set themselves the task of liquidating democracy in all its manifestations.

Occ. 32 (page 27):

i₂₄: During the war the menace of fascism cemented the union of all states practicing the various forms of democracy.

i₂₅: During the Second World War, there existed various forms of democracy, and these fought Mussolini's Italy and Hitler's Germany.

i₂₆: A state may practice democracy.

Occs. 33 and 34 (page 27):

VI. OCCURRENCE ANALYSIS

i₂₇: The war established a perfectly clear demarcation line between democracy and enemies of democracy. The line coincided with the line between the war camps.

Occ. 42 (Zaslavski 1946–47: 28):

i₂₈: The Atlantic Charter is a document that has the aim of affirming democratic principles in the whole world.

Occs. 48 and 49 (page 29):

i₂₉: If one could measure the strength of democratic feelings¹⁵ in degrees of hatred of fascism, the first place among democratic peoples would be occupied by the Soviet people.

Occ. 52 (page 30):

i₃₀: There is an American democracy.

i₃₁: It tolerates even now fascist propaganda in its press.

i₃₂: It is not incompatible with democracy to tolerate fascist propaganda in the press.

Occ. 53 (page 30):

i₃₃: There exists an English democracy.

i₃₄: It still upholds relations with fascist Spain.

Occ. 56 (page 30):

i₃₅: The friends of the Soviet Union outside that union constitute the democratic elements of their nations.

Occ. 62 (page 31):

i₃₆: It is to the Soviet Union that international democracy owes its salvation (consider the war events).

These are all implicates extracted from the sixty-six occurrences in the first chapter of Zaslavski's book. That chapter is mainly concerned with argumentation in favor of the conclusion that the Soviet Union is as much a democracy as other democracies, and even more so. In the next chapter, «The Power of the People», the main theme is a discussion of the essence of democracy, its definitional and most important nondefinitional characteristics.

The short second chapter (eight pages) contains occs. 67–133, and among them, some definitoid statements. The first pages of the chapter are of great interest for the theory and practice of elementary analysis. They are also well suited for illustrating the difficulties of occurrence analysis and the necessity for making distinctions that might on first sight seem pedantic and unnecessary. The discussion of those points (see section 17) is intended also to illustrate interpretational oscillations (chapter 2, section 13).

Zaslavski's second chapter opens thus:

Qu'est-ce qu'une démocratie [occ. 67]? Le mot répond, semble-t-il, par lui-même. Le mot démocratie [metaocc.] est d'origine grecque. *Demos* signifie peuple et *kratos* pouvoir. Démocratie [occ. 68] est le pouvoir du peuple. La démocratie [occ. 69] est l'antithèse de l'aristocratie, du pouvoir des nobles. La démocratie [occ. 70] est aussi l'antithèse de la ploutocratie, du pouvoir des riches. Les grands créateurs de la démocratie [occ. 71] américaine établirent une forme plus étendue de la démocratie [occ. 72] en la définissant comme le pouvoir du peuple, pour le peuple, par le peuple. (Zaslavski 1946–47: 33)

The following implicates are suggested:

Occ. 68 (page 33):

i₃₇: Democracy is the power of the people.

Occ. 72 (page 33):

i₃₈: The great creators of the American democracy defined democracy as the power of the people, for the people, by the people.

Occ. 79 appears in the following passage:

La démocratie [occ. 79] ne fut pas toujours de même nature au cours de l'histoire de l'humanité, car ses formes se modifièrent. A une époque déterminée, le

VI. OCCURRENCE ANALYSIS

mot «peuple» signifiait une chose, alors qu'il changeait de sens à une autre époque. (Zaslavski 1946–47: 34)

Suggested implicates of occ. 79:

- i₃₉: Democracy has not always been of the same nature throughout the history of humanity.
- i₄₀: Its forms have changed.

For the rest of the chapter, it suffices to state some implicates:

Occ. 80 (page 34):

- i₄₁: In countries with a majority and a minority, democracy is the power of the majority of the people.

Occ. 81 (page 34):

- i₄₂: Because workers make up the majority in such countries, power should belong to the workers in democratic countries.

Occ. 84 (page 35):

- i₄₃: A state where the power is in the hands of a minority is no true democracy.

Occ. 85 (page 35):

- i₄₄: It is no more than a partial democracy.

Occ. 86 (page 35):

- i₄₅: England is a bourgeois democracy.

Occ. 87 (page 35):

- i₄₆: Bourgeois democracy is a limited, imperfect form of democracy.

Occ. 95 (page 37):

i₄₇: History does not know of an eternal and unchangeable democracy.

Occ. 96 (page 37):

i₄₈: Democracy develops as do all other forms of society.

Occs. 97 and 98 (page 37):

i₄₉: Soviet democracy does not resemble the old form of democracy.

Occs. 101 and 102 (page 37):

i₅₀: Democracy in a state in which there exist several classes with opposing interests differs radically from democracy in a state that does not know of class struggle.

Occs. 103 and 104 (page 37):

i₅₁: Not the absence of capitalists and landlords, but their presence hinders numerous states from developing into authentic democracies.

Occs. 107 and 108 (page 38):

i₅₂: Fascism, which is a sworn enemy of democracy, has declared war on all democracies, old as well as new.

Occs. 110–112 (page 38):

i₅₃: Soviet democracy and bourgeois democracy have a common origin.

Occs. 114 and 115 (page 39):

VI. OCCURRENCE ANALYSIS

i₅₄: Without bourgeois democracy, there would have been no Soviet democracy.

Occs. 119 and 120 (Zaslavski 1946–47: 39):

i₅₅: Soviet democracy is the historic rejection of bourgeois democracy.

Occs. 121 (page 39):

i₅₆: Germany is crushed, but the menace to democracy is still present.

Occs. 122 and 123 (page 40):

i₅₇: United action is necessary to the development of new forms of democracy, such as U.N.O.

i₅₈: International democracy is not possible without the various democratic states continuing to stand together.

Occs. 126 and 127 (page 40):

i₅₉: Reaction is the common enemy of both the new Soviet democracy and the old bourgeois democracies.

The rest of the book is devoted to the subjects mentioned in the headings of the chapters—political parties, elections, and the press—and gives arguments in favor of the Soviet Union being a democracy, and being an authentic democracy, whereas the bourgeois democracies are not. Here are some implicates of importance:

Occs. 138 and 139 (page 42):

i₆₀: If plurality of parties were a criterion of democracy, the existence of parties would have been mentioned in democratic constitutions.

Occ. 141 (page 42):

- i₆₁: If the number of political parties ought to be an index of the democratic character of a country, priority (*primauté*) would have to be given to the Austro-Hungarian monarchy.

Occ. 156 (page 51):

- i₆₂: The existence in the Soviet Union of only one political party recognized by the constitution is a new phenomenon characteristic of a democracy of a new type.

In connection with these occurrences, Zaslavski states the doctrine that political parties result from class antagonism. Absence of such antagonisms results in absence of plurality of parties.

Occ. 158 (page 52):

- i₆₃: Soviet democracy is therefore the power of the people, for the people, and by the people.

This conclusion is stated after the following section: «Le pouvoir y appartient au peuple et au peuple seul qui est le maître de toutes les richesses de la terre. C'est dans l'intérêt exclusif du peuple que travaillent l'industrie et l'agriculture soviétiques. Seuls, les représentants des ouvriers, des paysans et des intellectuels, les élus du peuple, exercent le pouvoir. Les intellectuels soviétiques constituent une partie intégrante de la classe ouvrière et paysanne.» (Zaslavski 1946–47: p. 52)

Occ. 163 (page 53):

- i₆₄: The new feature of the Soviet democracy is that it is an authentic democracy.

Occs. 175 and 176 (page 69):

- i₆₅: The essential condition of an authentic democracy applied to elections is that it is made by the entire populace.
- i₆₆: The elections to the Supreme Soviet satisfy this condition and are the most democratic in existence.

VI. OCCURRENCE ANALYSIS

Occ. 192 (Zaslavski 1946–47: 107):

- i₆₇: Soviet democracy is the profoundest and most extensive democracy in the world.
- i₆₈: The most extensive democracy in the world is not only the power of the majority; it is the power of the people as a whole.

VI.10. Inferences in Relation to Occurrences 1–66

The implicates are sentences that are assumed to have meaning for the author of the texts analyzed. It is assumed that he would not only understand them, but also approve of them as tenable assertions about his own verbal habits or rules.

The next step in occurrence analysis is the formulation of sentences in the vocabulary of the analyst and his public—sentences that to him and his public express the same as the implicates are assumed to express for the author analyzed.

If an expression, T_0 , used in an implicate, makes the analyst wonder whether the author has by T_0 intended T_1 or T_2 (T_1 and T_2 being expressions in the vocabulary of the analyst), the aim at this new step of occurrence analysis will be to find out whether T_1 or T_2 is the more plausible interpretation of T_0 . If, on the other hand, the analyst is confident that the author did not have sufficient definiteness of intention to intend either T_1 or T_2 , then neither T_1 nor T_2 can be used in the analyst's version of the implicate. The criteria of definiteness of intention are so difficult to apply that in the following we do not take into consideration the possibility that the analyst's versions of the implicates are in part based on transintentional precisizations.

In the following, some reformulations of the implicates are listed. They are inferred on the basis of more or less uncertain hypotheses (auxiliary hypotheses) that cannot all be made explicit because of their multiplicity and their complicated content.

In the following, we have not found it practicable to report on interpretations of every occurrence sentence or implicate. Those not mentioned

in what follows are assumed to have been interpreted by the analyst, even if no report is given. Such assumptions are necessary in order to justify the concluding steps of the analysis.

Occurrence 1: «The Soviet Democracy»

Occ. 1 is in the book's title, *La démocratie soviétique*. Tentative interpretations of the title are:

- T₀: Soviet democracy.
- T₁: The particular democracy with the name «USSR».
- T₂: Democracy of the kind realized in the USSR.
- T₃: Democracy-by-Soviets («Soviets» used as the name for a certain kind of group to be discussed).

T₃ is excluded without further discussion because of the secondary importance attached to discussion of Soviet groups within the text.

Tentatively proposed inferences based on the above interpretations are:

There is a democracy.	T ₁ – inference
The Soviet Union is a democracy.	T ₁ – inference
There is a Soviet democracy.	T ₂ – inference
The USSR is a Soviet democracy.	T ₂ – inference

Let us at once admit that these interpretations and inferences are suggested by previous reading of Soviet literature and by preconceptions about Zaslavski. Thus, I presume he is a defender of all that he calls «*soviétique*». Without such preconceptions, a greater number of directions of precization would have to be considered. The hypotheses that Zaslavski has a consistent positive evaluation of all that is called «*soviétique*», and a predominantly positive evaluation of all that is called «*démocratique*», are used as auxiliary hypotheses in need of confirmation. For further discussion of this point, see pages 351–52.

If a fourth interpretation, «the so-called Soviet democracy» (T₄), were taken seriously, there would be inferences such as:

VI. OCCURRENCE ANALYSIS

Some call the Soviet Union a «democracy».

Some call something «a Soviet democracy», etc.

Using our working hypotheses about positive evaluation and a hypothesis about negative evaluation expressed by «so-called democracy», we leave out these inference possibilities.

The designation «*démocratie soviétique*» is perhaps used as a *terminus technicus* for a kind of democracy, a subclass of democracies. The interpretation of «*démocratie soviétique*» in this direction implies the conceivability of Soviet-democracies besides the USSR (for example, that the USSR is taken as an example of something).

There are sentences on (Zaslavski 1946–47) pages 34ff. on types (forms) of democracy that support such an interpretation. The comparison of «*démocratie soviétique*» suggests the possibility of using the term as a class name. Zaslavski names several bourgeois democracies and uses the term in the plural (for example, on page 35), so the class-name nature of that designation is fairly certain.

There is, however, no single occurrence of «*démocratie soviétique*» that cannot plausibly be interpreted in accordance with T_1 , «the particular democracy with the name «USSR»», whereas some occurrences are not easily interpreted in accordance with T_2 . To take an example: «Mais ce ne sont évidemment pas ces documents [la Charte de l'Atlantique, etc.] qui comptent le plus. Ce qui importe davantage, ce sont les actes historiques que ces documents reflètent et qui en font la valeur. Ces actes sont les sacrifices sans exemple de la démocratie soviétique consentis pour le salut de la culture mondiale et de la démocratie internationale» (ibid., p. 28).

In view of the somewhat heavier evidence favoring T_1 over T_2 , the former is selected as the main interpretation.¹⁶ There is, however, no clear-cut reason to believe that Zaslavski always intends to convey T_1 rather than T_2 , or vice versa. At some places the one may be intended; at other places, the other. Moreover, sometimes there may not have been sufficient depth of intention to permit us to distinguish discrimination possibilities of the kind required.

From the inference «The Soviet Union is a democracy», it may be deduced that «There is nothing that truly can be affirmed about the Soviet Union (up to 1946) that is incompatible with its being a democracy».

It is of basic importance to this analysis that the criterion concerning

what «truly can be affirmed» is *agreement with Zaslavski's views at the moment he produced the text*. Roughly, we may say that as long as we are concerned with implicates from occurrence sentences, our subject matter is the *language of Zaslavski*. Our inferences mainly concern Zaslavski's *opinions* and our conclusions in the form of descriptive definitions concern his *language*.

If occ. 1 were followed by details on the Soviet Union, then we would collect details on characteristics compatible with democracy as conceived by Zaslavski. In the course of the book, Zaslavski asserts quite a number of propositions about the Soviet Union, and these will be collected in relation to occ. 1, to enable us to infer as much as possible from that occurrence. When we consider what can be inferred from the inference «The Soviet Union is a democracy», not only are *propositions* involving what is «*soviétique*» important, but also clarifications and definitoid statements on «the Soviet Union» and «*soviétique*». Thus, on page 7, it is said that «L'Union Soviétique --- créa --- une nouvelle forme de gouvernement, à savoir les Soviets» (ibid.). This saying suggests some relation between being the Soviet Union and being a form of government, which in turn suggests an intimate relation between being a form of government and being a democracy.

Occurrences 2–4: Democratic and Antidemocratic Regimes

We now move on to a discussion of implicates i_1 – i_5 (for full text, see pages 333–34).

The «more or less» of i_3 («Regimes can be more or less antidemocratic») is of interest because it suggests a use of «antidemocratic» and «democratic» for a graduated characteristic, a characteristic being present in varying degrees. The existence of such a gradation would make it of subordinate interest to find a sharp line of delimitation between democratic and antidemocratic, because the gradation would probably be caused by corresponding gradations of conceptual characteristics.

As a matter of fact, theorists usually abandon the dichotomies democratic/nondemocratic and democratic/antidemocratic in their detailed discussions of what is meant by «democracy». Most definitoid statements do not go into details, however, and they are formulated in terms of the dichotomy. Definitions based on «more (less) democratic than» rather than «democratic» or «democracy» are comparatively rare. Instances are found,

VI. OCCURRENCE ANALYSIS

for example, in Alf Ross (1946), J. Jørgensen, Naess (1942), Salvador de Madariaga (1958), and Harold D. Lasswell (1948).

Some plausible, legally oriented interpretations of «constitution» as used in implicate i_5 provide useful hints about what might be meant by constitutions being democratic. This leads us to a survey of some constitutions of the past and Zaslavski's opinion of those constitutions. These opinions can probably be somewhat more easily inferred and described than his view on the *regimes* called «antidemocratic». Descriptions of characteristics of a constitution may be expected to vary less than descriptions of regimes when by «regimes» is meant, for example, particular historical governments as they operate, rather than forms of government. Thus, we would guess that if we cannot find direct statements by Zaslavski about the regimes referred to, we may expect to obtain more reliable hypotheses about his use of the term «democratic» by following up the path of i_4 rather than i_5 .

If a broad occurrence analysis including information on denotata of 'democracy' were aimed at, i_4 would in itself constitute a result of analysis. However, the information on Zaslavski's opinion of Yugoslavia's relation to democracy is only of value as a possible basis for hypotheses about what is meant by «democratic».

From occs. 3 and 4 we might tentatively infer: as long as the constitution of a state is democratic, antidemocratic regimes cannot be established.

Finally, we may say that occs. 2–4 indirectly provide us with a great mass of information by their references to historical happenings and documents.

Occurrence 5

After occurrence sentence 5 (for text, see page 335), Zaslavski makes statements that probably are meant to document his assertion that the Soviet regime is democratic in the economic aspect. About the millions of workers, engineers, and so forth, he says, «Il est indispensable qu'ils sachent ce qui se passe dans l'entreprise en «état d'émulation»; ---». Just before the occurrence sentence, we read: «Le collectivisme qui y est appliqué signifie que les plans de nouvelles entreprises, les nouvelles méthodes de travail sont examinés et discutés non pas dans le bureau d'un entrepreneur, mais dans les réunions publiques où la presse a accès. Les inventions des stak-

hanovistes deviennent l'apanage du peuple entier. Nous ignorons les «secrets de production», sous la forme où ils existent dans l'industrie capitaliste, où le propriétaire d'une entreprise est aussi le propriétaire du secret.»

Maybe the democraticity of the economic aspect according to Zaslavski (1946–47: 20, 21) means, roughly speaking, that every man or woman engaged in economic activities is allowed to inspect and discuss how these activities are led, that he or she has access to all information on all industrial processes and related matters, except military secrets. In recent discussions, the term «industrial democracy» is sometimes used in meanings closely related to this, whereas «democratic in the economic sense» is taken to refer to equality of opportunity, income, salaries, and so on. There is no indication that the term is thus used at occ. 5.

If the above rough indication of the sense in which Zaslavski uses «economic aspect» is tenable, it would confirm the assumption that the sentence following the occurrence sentence is intended to elaborate what is implied in the phrase «economic aspect». That sentence reads, «Dans aucun pays du monde, l'observation de la vie n'est aussi libre que dans le pays soviétique».

The democraticity of the economic aspect might then perhaps be said to consist in the possibility of every citizen being able to inspect, discuss (and criticize) every feature of economic life.

This vaguely formulated hypothesis about Zaslavski's usage is neither confirmed nor disconfirmed strongly by later occurrences. Unhappily, the expression «democratic in the economic aspect» does not again appear in the text.

Other hypotheses may work just, or nearly, as well—for example, the hypothesis that democraticity in the economic sphere consists in all industrial engineers having access to all inventions and to all information about industrial plants. Such conditions might be contrasted with those prevailing in countries with patent laws.

Both hypotheses may prove to be misleading and the result of too much stress on the immediate context.

The heading of chapter 1 reads, «L'État soviétique n'est ni une utopie, ni une expérience, ni une énigme». Occ. 5 is part of a trend of argumentation in that chapter against the Soviet Union's being an enigma. Therefore, Zaslavski stresses that the economic life of the Soviet Union is open to in-

VI. OCCURRENCE ANALYSIS

spection by foreigners through publications, reports, and so on. This broader context of occ. 5 would thus in part explain why the sentence elaborating the democraticity of the economic aspect is limited to the topic of openness to inspection and discussion. If there were a chapter on distribution of economic goods, one might find occurrences such as to make a third hypothesis more probable than the first two.

A verdict that «hypothesis 1 and not hypothesis 2 about occ. 5 is strongly confirmed (or weakened) by analysis of further occurrences» presupposes that each hypothesis's intended field of application is extended beyond occ. 5. Such an extension is rather inevitable if we hope to collect a satisfactory amount of evidence. As a matter of fact, very little evidence for one or the other can be gathered from analysis of Zaslavski's text. On the other hand, there is even less evidence of «democratic in the economic aspect» being used to connote 'equality of opportunity to work and earn money', or 'equality of income'. Such a situation is very common in connotational occurrence analysis of a single, only moderately long text. There is insufficient material to confirm or disconfirm strongly any hypothesis of interest. One way out of the difficulty is to create a supplementary text of high relevance. This can be done by questionnaire methods. The questions can be constructed in such a way that answers are apt to throw light on just those hypotheses that have been tentatively formulated on the basis of occurrence analysis. Generally, however, it is more convenient to use questionnaires first, then go into occurrence analysis, or to mix the two methods during all stages of the investigation.

Occurrences 6–11: Various Democracies

For the identification of the phenomenon that Zaslavski calls «the eighteenth-century French democracy», the sentences that follow occurrence sentence 6 (see implicates i_{11} and i_{12} , pages 335–36) are important: «Ils ne *pouvaient* pas comprendre cette énigme, car ils ne *voulaient* point la comprendre. Et ils ne le voulaient pas parce qu'ils *craignaient* de comprendre. La politique des Louis avant la grande Révolution bourgeoise en France était une politique d'autruche qui cache sa tête sous son aile.» The usefulness of i_{11} is somewhat reduced because Zaslavski does not say much more about the old French system of democracy.

Occs. 7–11 (see implicates i_{13} – i_{16} , page 336), with the exception of occ. 8, are doubtful because one cannot be sure that Zaslavski intends to use the word in his own sense. He may intend to quote the Westerners in their own terminology. I suppose, however, that Zaslavski wishes to be understood to state that the part of the press under consideration denies that the Soviet Union is a democracy in the sense that «democracy» has for the readers of his book, and that sense I suppose he would consider identical with his own.¹⁷

Zaslavski seems to be of the opinion that some people fear the consequences of admitting that the USSR is a democracy. He further thinks that they cannot, on the other hand, classify it as an aristocracy, plutocracy, or other such form of government. Therefore, the USSR must be an enigma in their eyes (cf. Zaslavski 1946–47: 22ff.). If those people, by «democracy», meant something very different from what Zaslavski means, then Zaslavski would not be sure why they should be frightened. These and other reflections support the status of occs. 7–11 as genuine occurrences, that is, occurrences of Zaslavski's own usage.

Occurrences 12–66

Occurrence sentences 12–66 are among the most important for our analysis, but only a few of them will be discussed in what follows. More adequate exposition would require too much space.

From occ. 14 and its context (*ibid.*, p. 23), we infer:

inf_2 : A democracy is neither an aristocracy nor a plutocracy.

Although important, this inference is highly uncertain; therefore, it was not listed among the implicates. The inference «Soviet democracy is neither an aristocracy nor a plutocracy» is much less uncertain, but also less important.

Implicate 18 (page 337) suggests, but very weakly, that «democracy» here is used about a state form. It supports the claim that «Soviet democracy» in occurrence sentence 17 is used as a class name. If the designation were, for example, a name for «the regime in the USSR», occ. 18 would be rather trivial: «history did not know of the regime in the USSR before the

VI. OCCURRENCE ANALYSIS

birth of the Soviet state». Implicates 21 and 22 (page 337) are of importance because occ. 28 is followed by a description of what fascism is the negation of. From occs. 24 and 28 and the description, we derive:

inf₃: The democratic peoples have fought the negation of the following phenomena:
sovereignty of the people,
their independence and freedom,
the equality of citizens,
the civil liberties,
the democratic culture,
philosophy,
science,
theory and practice of parliamentarism.

Implicate 27 (page 338) and some of the foregoing implicates are of special interest because by means of them we can construct a list of denotata of 'democracies' for the time interval between 1939 and 1945 or a large part of it. In i_{27} , «line between democracy and enemies of democracy» may be interpreted in the direction of «line such that *all* democracies were on one side, and only enemies of democracies were on the other side». If this interpretation holds, the list of the Allied countries during the Second World War is a complete list of denotata. The class of common and specific properties (as conceived by Zaslavski) of these countries contains all the conceptual characteristics of 'democracy'. A complete list of denotata valid for a certain time interval is one of the most valuable assets in occurrence analysis, but, alas, several difficulties have to be surmounted to make adequate use of the material.

The conjunction of the common and specific properties of a class of things implies the conjunction of conceptual characteristics of the concept that has that class of things as its complete class of denotata. But if the class is very rich, and the conceptual characteristics poor, there will be a pronounced uncertainty in the inferences leading from the conjunction of common and specific characteristics to the conjunction of conceptual characteristics. To give an illustration: if some A pearls or parts of them make up all B pearls, and this is all we know about B pearls, and if there are many

A pearls and few B pearls, there is little chance that we can pick out just those A pearls that also are B pearls. If the list of Allied countries is conceived as a *complete* list of denotata of 'democracy', then the absence of Sweden and Switzerland from the list makes it complicated to find common and specific characteristics for the listed countries.

Let us, on the other hand, interpret «line between democracy and enemies of democracy» in the direction of «line such that on one side all were democracies, and on the other side all were enemies of democracies». On the basis of this interpretation, Zaslavski may not be willing to take the list of Allied countries as a *complete* list of denotata. There are still difficulties, however. Finland is not on the Allied list, but on the list of enemies of democracy. We shall, therefore, have to find common and specific characteristics of Denmark, Greece, and Poland in contrast to Finland such that among the common characteristics of the three countries, all the conceptual characteristics of 'democracy' are to be found.

One may here legitimately ask, Do we not by the implicates and their interpretation transcend the definiteness of intention of the sender? It may well be that the sender does not intend to make a strict and accurate line between Allies and their foes. He may not have thought about particular countries at all. In that case we have no basis for making a list of denotata. There are, however, in the text many symptoms that such a line is intended:

Le danger cimentait l'union contre le fascisme de tous les Etats pratiquant les diverses formes de démocratie [occ. 32]. La guerre établit une ligne de démarcation absolument nette entre les deux camps. Ce qui était d'un côté de cette ligne appartenait à la démocratie [occ. 33]. Tout ce qui était de l'autre aux ennemis de la démocratie [occ. 34], au fascisme. Il apparut clairement que la co-existence de ces deux systèmes était impossible. Il devint tout aussi clair qu'il ne saurait y avoir de formes intermédiaires ou transitoires. Démocratie [occ. 35] ou fascisme, tel était le problème de vie ou de mort posé par l'histoire.

(Zaslavski 1946–47: 27)

I suspect, however, that it is untenable to attribute the following opinion to Zaslavski: «Denmark, Greece, and Poland in 1939–1945 (including the time just before declarations of war), in contrast to Finland, manifest all conceptual characteristics of democracies».

VI. OCCURRENCE ANALYSIS

The question is then, How should we modify or interpret the occurrence sentences and our implicates to avoid the consequence that such an opinion can be inferred from them?

One possibility is to interpret «democratic people» and «war» in occs. 24, 33, and 34 and certain other designations of other occurrence sentences in such a way that (a) «war» and «fight» refer also to conflicts that do not have the status of war in the sense of international law and (b) those fighting need not be «peoples» in the sense of «nations» but can also be factions within nations. By making interpretations in this direction, we remove the line of demarcation between democrats and fascists during the world war that can be inferred from the list of belligerent nations.

Or, it is possible that Zaslavski has reasoned somewhat as follows: «The readers of this booklet have, on the whole, rather confused ideas about which countries were engaged in the fight. They will not spend much time reading my sentence and will apply my indications only to those countries mentioned in the text. They will either not think of Finland, or only remember the severe criticism it suffered in the press of the Allied powers. Thus, on the whole, my readers will get a correct picture of the situation even on a somewhat doubtful basis.»

Such a possibility involves the hypothesis that in writing the booklet, Zaslavski occasionally abstains more or less consciously from interpreting his sentences in a fairly precise way because his main task is to convey something to readers who interpret with very low definiteness of intention and on the basis of very meager information.

We do not need to decide which possibility is most plausible. The present analysis is an illustration of occurrence analysis, and the present dilemma shows some of the kinds of hypotheses that must constantly be evaluated during the work with inference classes.

VI.11. Inferences from Zaslavski's Definitoid Statements on Democracy

Implicate 37 (see page 339) may be interpreted in various directions. One involves the type of sentence intended. We may say that it concerns precisizations of «is». We venture to suggest that the following, among others, are based on plausible interpretations of Zaslavski:

- T₁(i₃₇): The word «democracy» signifies, as used by competent persons, 'the power of the people'.
T₂(i₃₇): The essential characteristic of a democracy is the power of the people.
T₃(i₃₇): The word «democracy», as used correctly, has the connotation 'the power of the people'.
T₄(i₃₇): 'The power of the people' is a necessary and a sufficient criterion of democracy and the one I [Zaslavski] use.

What «correctly» in T₃(i₃₇) means, how the criteria of correctness are applied, and so on, are here left unprecized.

From occs. 69 and 70 of the quoted passage (page 339), we extract the following inference:

- inf₄: If power is in the hands of the noble or the rich, there can be no democracy.

To understand this inference as well as the definitoid statements, it is important to obtain information about how Zaslavski (1946–47) uses «power» and «people». He says on page 33 that «the words people and power have not always been used *à bon escient*», and discusses their use:

Le mot démocratie [metaocc.] est d'origine grecque et la forme démocratique [occ. 73] d'administration d'Etat naquit dans l'ancienne Grèce. La République d'Athènes fut une démocratie [occ. 74]. C'est le peuple qui y exerçait le pouvoir. Il avait coutume de se réunir sur une place publique et ses représentants prenaient des décisions sur l'administration de l'Etat par voie de consultation et de votes.

Toutefois, ce n'est pas la population entière qui était considérée comme *démós* et prenait des décisions sur les questions d'administration. Les esclaves, fort nombreux à Athènes, n'étaient pas considérés comme *démós* et ne faisaient pas partie du peuple. Ils ne jouissaient ni de droits civils, ni de droits civiques, bien qu'ils fussent les artisans de la richesse de la démocratie [occ. 75] athénienne. Cela signifie que la première démocratie [occ. 76] était une démocratie [occ. 77] esclavagiste. Elle n'était pas une démocratie [occ. 78] dans notre sens du mot. Le pouvoir appartenait non pas au peuple, mais à une partie du peuple.

Les temps anciens ne sont pas les seuls à avoir connu une telle situation.

(Zaslavski 1946–47: 33)

VI. OCCURRENCE ANALYSIS

The first section of the quoted passage strongly suggests that «democracy» in occs. 73 and 74 is by Zaslavski intended to be used in the sense he attaches to the word himself. Similarly, the first section suggests that «people» and «power»—important definiens expressions—are intended to be used in the sense Zaslavski would use them himself. Accordingly, we extract:

- inf₅: The democratic form of state administration was born in ancient Greece.
- inf₆: The Athenian Republic was a democracy.
- inf₇: It was the people who exercised the power in the Athenian Republic.
- inf₈: It is a sufficient condition for calling a state administration democratic that the people of the state have the custom of assembling at a public place and their representatives make decisions on the administration of the state by the way of consultation and votes.
- inf₉: It is a sufficient condition for calling a state a democracy that the people exercise the power.
- inf₁₀: The people exercise the power, if they have the custom of assembling (etc.).
- inf₁₁: It was a part of the populace, the free citizens, who exercised the power in the Athenian Republic.

In the second section of the quotation, however, it seems as if Zaslavski intends to use «the people» as synonymous with «the entire population».

Using this precization of «people», we may formulate important new precizations of i₃₇:

- T₅(i₃₇): Democracy is the power of the entire population, etc.

Making the last sentences of the second section the basis of our interpretation of Zaslavski, we conclude that inferences 5–10 are misleading. If «democracy», «people», and «power» are taken in the sense intended by Zaslavski—for example, «the people» taken as synonymous with «the entire population»—then he would reject inf₅–inf₁₀ as false assertions. He even *explicitly* denies inf₆.

The inferences might be retained but precized, for example, as follows:

T₁ (inf₆): The Athenian Republic was a «democracy» in at least one sense of the word.

Our contention is that, having read the first *and* second sections of the quoted text, and having read them in close connection with the opening sentences of the chapter, we would do the right thing to reject «occurrence» 74 («The Athenian Republic was a democracy») as an example of «democracy» being *used by Zaslavski*. Similarly, we reject the sentence «It is the people who there exercised the power» as evidence of Zaslavski's use of «people» and «power». All the sentences of the first section of the quotation (except the first sentence) we take as a sample of indirect speech by which Zaslavski characterizes a usage that is *not* as it should be (not «*employés à bon escient*»).

This conclusion I consider very shaky, but better confirmed than the rival view described on page 356.

In conformity with this conclusion, occs. 75–77 should also be rejected as examples of the usage of Zaslavski. One inference may be noted, however, based on occs. 76–78:

inf₁₂: The first so-called democracy, the Athenian Republic, was a slave democracy, not a democracy in our sense of the word.

The reader of inf₁₂ is expected to read it as if it were formulated by Zaslavski, which implies the use of T₅(i₃₇).

Is it fairly certain that Zaslavski intends to use «democracy» in his sense in i₃₉? In view of the last sentence of the quotation and related to the previous quotation, I am inclined to answer no. What Zaslavski means by «democracy» in occ. 79 may be «so-called democracy», «anything called democracy at least within one epoch». If so, then we get the so-called «forms of democracy» as descriptions of the classes of things *at least once called «democracy»*. Accordingly, i₃₉ should be changed to something like:

T₁(i₃₉): What has been called «democracy» was not always of the same nature throughout the history of humanity.

In accordance with this, we interpret the implicates on pages 340–41ff.:
Occ. 80:

VI. OCCURRENCE ANALYSIS

inf₁₃: In countries with a majority and a minority, what is called «democracy» is the power of the majority of the people.

Occ. 81:

inf₁₄: Because as workers make up the majority in such countries, power should belong to the workers in so-called «democratic countries».

Occ. 83 and context:

inf₁₅: In bourgeois democracies the real power remains in the hands of a capitalist minority—even when the workers have the political power in a parliament.

Occ. 84:

inf₁₆: A state in which the power is in the hands of a minority is no democracy (in the sense of Zaslavski).

Occ. 85:

inf₁₇: It is no more than a partial democracy (which is not a democracy in the sense of Zaslavski).

Occ. 87:

inf₁₈: Democracy in the sense of Zaslavski is true democracy.

Occ. 88:

inf₁₉: It is also democracy in the strict sense of the word.

Occ. 95:

inf₂₀: History does not know of anything eternal and unchangeable called «democracy».

Occ. 96:

inf₂₁: What is called «democracy» develops as do all other forms of society.

Occs. 97 and 98:

inf₂₂: Soviet democracy does not resemble the old form of so-called «democracy».

Occs. 101 and 102:

inf₂₃: So-called «democracy», in a state in which there exist several classes with opposing interests, differs radically from democracy in a state that does not know of class struggle.

Occs. 107 and 108:

inf₂₄: Fascism, which is the sworn enemy of so-called «democracy», has declared war on all that has been called «democracy», old as well as new.

Occs. 122 and 123:

inf₂₅: United action is necessary for the development of new forms of so-called «democracy», such as U.N.O.

Occs. 124 and 125:

inf₂₆: International democracy is not possible without the various so-called «democratic» states standing together.

VI.12. Other Inferences

This investigation of Zaslavski's *La démocratie soviétique* is made to *illustrate* the somewhat abstract theoretical structure of occurrence analysis. It would

VI. OCCURRENCE ANALYSIS

take too much space to construct detailed inference lists. We shall therefore limit ourselves to mentioning only a few additional inferences:

- inf₂₇: The USSR is a state of workers and peasants, and because socialist economy is in the interest of both, no antagonism of class can develop, and therefore no multiplicity of political parties (Zaslavski 1946–47: 51).
- inf₂₈: The Communist party in the Soviet democracy is a power that guides and directs (page 67).

From implicates i_{38} and i_{63} (occs. 72 and 158), we infer:

- inf₂₉: Democracy is the power of the people, by the people, for the people (page 67).

Occ. 158 (i_{63}) furnishes additional evidence that Zaslavski accepts the definiens formula so often found among Western ideologists and quoted by him in chapter 2.

In the Soviet Union there is universal, direct, equal, and secret suffrage, according to Zaslavski (page 55). This declaration is useful for constructing hypotheses about the requirements that Zaslavski would make definitional for authentic democracies. As regards elections, Zaslavski sets forth requirements (necessary conditions of authentic democracy) explicitly.

From occ. 166 and its context (page 57), we infer:

- inf₃₀: No democracy exists where election machines of parties organize and prepare elections, because usually to prepare an action means to realize it.
- inf₃₁: No democracy exists where only a small minority has access to the preparation of elections.

From occ. 172 and its context (page 58), we infer:

- inf₃₂: No true democracy exists where the people not belonging to a political party—that is, the vast majority of the people in any country—cannot choose their candidates.

VI.13. Narrow Concepts of 'Authentic Democracy' Versus Broad Concepts of 'Democracy, Authentic or Nonauthentic'

We have quoted only from Zaslavski's *La démocratie soviétique*, and the occurrence inferences are all from that book. This does not mean that when we now construct hypotheses about Zaslavski's usage, we use *only* the sentences of that book as evidence. Such a procedure would be interesting and valuable as an illustration of the exceedingly meager results that emerge from strict adherence to the evidence of a text taken in isolation. In practice, however, such adherence would prevent us from acquiring material necessary to establish descriptive definitions of usage.

It is our intention to let the hypotheses on usage have as a *primary* observational field the text of Zaslavski. We shall feel particularly responsible for mistakes in evaluation of evidence from that source. In reality, however, our choice of hypotheses is determined to a large extent, and in a way that is difficult to test, by previous reading, especially of literature on democracy by Soviet and other authors.

In the foregoing we have used the expression «hypotheses about Zaslavski's usage» to designate what we are trying to find. The expression should be interpreted as a deprecization of «synonymity hypotheses giving a precization, or many precizations, of «democracy» such that the readers of the hypotheses will in their interpretation come as near as possible to the interpretation or interpretations that Zaslavski himself applies to the occurrences of «democracy» in the text *La démocratie soviétique*. Zaslavski's intended interpretation at the moment¹⁸ of the production of the text is the objective of our analysis.

A survey of the inferences suggests that it is unfruitful to *start* our discussion of descriptive definitions covering Zaslavski's use of «democracy» by references to the hypothesis suggested on pages 357ff. that very few or no occurrences are subsumable under the definitions Zaslavski himself gives of the term, and that the rest are not occurrences of the use of «democracy» but occurrences in the metalanguage.

Two main directions of precization can be indicated by the interpretations T_1 and T_2 :

T_0 : Democracy.

VI. OCCURRENCE ANALYSIS

- T₁: Authentic democracy.
T₂: Democracy, authentic or¹⁹ nonauthentic.

The expression «authentic democracy» (T₁) is one that Zaslavski uses himself; the expression T₂ is not used by him. T₂ gives concepts of wider connotation than T₁. T₂ has the form of a disjunction of two characters, «a v b», in which one is a concept expressed by T₁.

Our first hypothesis will be:

At least once, Zaslavski uses «democracy» to express something nearer to a plausible interpretation of «authentic democracy» than to a plausible interpretation of «democracy, authentic or nonauthentic». At least once, the opposite is the case.

This hypothesis is a hypothesis of ambiguity, with a rough indication of a difference in meaning.

In chapter 2 and also in later chapters, Zaslavski takes great pains to make distinctions that he tries to clarify by expressions such as the following:

i ₄₅ , i ₄₆ , i ₅₃ , i ₅₄ , i ₅₅ , i ₅₉ , inf ₁₅ :	bourgeois democracy
inf ₁₂ :	slave democracy
i ₄₄ :	partial democracy
i ₄₆ :	imperfect and limited form of democracy
i ₄₉ :	democracy of the old form
inf ₁₉ :	democracy in the strict sense of the word
i ₅₁ , i ₆₄ , i ₆₅ :	authentic democracy
i ₆₂ :	democracy of a new type
i ₄₃ , inf ₁₈ , inf ₃₂ :	true democracy

The distinctions are closely related to Zaslavski's evaluations. The Soviet Union is the only denotatum of 'authentic democracy,' and it is said that it is the profoundest and most extensive democracy in the world (see i₆₃). What is said about authentic democracy seems always intended as praise. There is ample reason to suppose that Zaslavski never intends to say anything unfavorable about the Soviet Union. Thus, 'authentic democracy' may be considered something highly and consistently valued. We may accordingly rely on the hypothesis that if something unfavorable (in the supposed estimation of Zaslavski) is said about «democracy», the word is not used in the sense of «authentic (true) democracy»; if something unfavorable is said, the wide concept T₂ or some other concept is used.

The wide concept T₂ includes authentic democracies, but it is seldom

used without a qualifying phrase making the sentence tell something about a subgroup of T_2 democracies, such as «bourgeois democracies». The subgroups qualified in this way are never praised unconditionally. They are mainly valued as stages in the development toward authentic democracy. The denotata of the wide concept seem to be positively evaluated, but not as strongly as the narrower concept of authentic democracy.

Zaslavski's valuations are mentioned because, as we look for evidence of whether a given occurrence is an instance of T_1 rather than of T_2 or vice versa, the estimations cannot but play an important role.

Some of the implicates subsumable under T_2 are:

«The war established a perfectly clear demarcation line between democracy and enemies of democracy. The line coincided with the line between the war camps» (i_{27}).

«Fascism, which is a sworn enemy of democracy, declared war on all democracies, old as well as new» (i_{52}).

Let us now turn to occurrences more easily subsumable under the narrow kinds of connotations than under the wide ones.

Zaslavski says that the United States is a democracy (i_{30} , i_{38}), using the word in the wide sense (T_2), but he describes elections there and comments, «That is not democracy» (occ. 166, inf_{30}). Here we subsume under the narrow sense (T_1). In other words, we maintain as a subsumption hypothesis that Zaslavski intends to say something better expressed by certain plausible interpretations of «That is not authentic democracy» than by «That is no democracy, authentic or nonauthentic».

Zaslavski says that in a «true democracy» the power cannot be in the hands of a minority. Such a state can at most be «a partial democracy» (occ. 85, i_{44}). Maybe Zaslavski here means by «democracy» something in the direction of «authentic democracy». He in that case maintains that in a state in which the power is in the hands of a minority, not all conceptual characteristics of an (authentic, true) democracy are realized, but only some. Zaslavski may, however, also have meant to use a broad concept, or, as a third important possibility in this connection, he may have intended to use «partial democracy» and «true democracy» as two two-word designations incapable of being analyzed into a concept designation «democracy» with «true» or «partial» as qualifying words. Similar reflections are relevant to occ. 87, i_{46} : «imperfect and limited democracy».

VI. OCCURRENCE ANALYSIS

Occs. 85, 87, and 166 are the only instances that may be taken to support Zaslavski's using «democracy» in the narrow sense—and those sub-assumptions are uncertain. The word «democracy» in occ. 166 may be used as synonym for an adjective «democratic»: «This is not democratic!» «This is not in agreement with requirements of democracy even in the broad sense!» «This is a feature of U.S. society that makes it drop in degree of democraticity.»

There are many instances in which Zaslavski says that different forms of democracy must be distinguished, that Soviet democracy is a new, better form: that it is an example (the only one so far realized) of a new form, and so on. This usage is well documented by implicates, for example, implicates 17, 18, 40, 49, 62 and 64.

There is insufficient evidence, however, to say that Zaslavski ever uses «Soviet democracy» as synonymous with «democracy». He may have used it as a synonym for «authentic democracy», but the evidence is too meager to establish such cases with reasonable certainty. Our puzzling conclusion is that Zaslavski *says* that «democracy» means «power of the people, etc.» and he takes «people» to mean «the entire populace» in contrast to «a part of the people».²⁰ (cf. T₅(i₃₇)), but there is scarcely a single *clear-cut* instance of his *using* the word that way. Whenever he uses the word, he seems to apply it in order to express broader concepts, which presuppose rigorous requirements as necessary and sufficient criteria of 'democracy'.

In other words, we arrive at the conclusion that if the definitoid statements made by Zaslavski are meant to express something similar to a normative definition, it is a normative definition that he probably has not followed a single time in his work. If the definitoid statements are meant to express something similar to a descriptive definition with an intended field of application covering his work, it is an untenable description.

Zaslavski insists, as has been mentioned, that there are different forms of democracy, each having its peculiar characteristics. This might be interpreted to mean that a democracy is an authentic democracy, or a bourgeois democracy, or a slave democracy, or some other form of democracy. It cannot be democracy without exhibiting one of the peculiar, mutually exclusive, forms of democracy. A democracy must belong to such a subgroup. This interpretation may seem, however, to be an assertion too trivial to be attributed to Zaslavski. It is difficult to conceive a *rose in general*, a rose that is nei-

ther white nor red, nor any other color, and just as difficult to conceive a democracy having no other character than the conceptual ones. Zaslavski, perhaps, intends to stress that one should not identify certain subgroups of democracy such as bourgeois democracy with democracy. There not only may be, but certainly are, very different ones, for example, Soviet democracy.

Some of the occurrences of «democracy» without qualifications clearly do not lend themselves to any but rather broad interpretations—for example, when Zaslavski says that Athens was a democracy but a slave democracy (inf_{12}), or when he insists that fascism is an enemy of all forms of democracy, old and new (i_{52}). Consider further his assertion that democracy develops as do all other forms of society (i_{48}), and that democracy in a state with class struggle differs radically from democracy in a state without class struggle (i_{50}). It is difficult in these cases to believe that by the word democracy he means «Soviet democracy», «bourgeois democracy», or any other special kind of democracy. He does not intend to say that Athens was a «slave democracy but a slave democracy» or that authentic (or any other form of) democracy may be either classless or not. When he says that the Athenian Republic of was the first democracy (inf_5 and inf_6), he probably does not intend to say that it was the first slave democracy. It seems more probable that he thinks that in Athens for the first time certain phenomena were created that qualified for the title «democracy», but democracy having peculiar specific characteristics. He suggests what made him use the title «democracy» by speaking about the «democratic form of state administration» (inf_5) in Athens.

In this connection I think it appropriate also to mention his saying that «Soviet democracy is the historical rejection of bourgeois democracy» (i_{55}) and «Without bourgeois democracy there would have been no Soviet democracy» (i_{54}).

By means of highly speculative auxiliary hypotheses, one might bring the above implicates into harmony with the interpretation of Zaslavski according to which he never intends to use «democracy» for a fairly broad (general) concept, comprising kinds of subgroups of democracy, and therefore subconcepts such as 'bourgeois democracy'. If the pros and cons are weighed, however, the evidence favors a fairly broad interpretation, even if this (of course) also implies auxiliary hypotheses and certain disbeliefs in what Zaslavski himself seems to assert about his own usage.

VI. OCCURRENCE ANALYSIS

VI.14. Precization Possibilities of Broad Concepts, Especially Their Specific Conceptual Characteristics

In the foregoing, we have argued that Zaslavski talks about, but does not use, or at least very seldom uses, a narrow concept of 'democracy', by which «democracy» is intended to be used synonymously with «authentic democracy» and this again with «the power of the entire populace». On the other hand, he often seems to use a broad concept, designating something that is an authentic democracy or something else, 'a', which we so far merely have alluded to by the expression «nonauthentic democracy».

The determination of 'a' is highly speculative and so is, therefore, the determination of the broader kind of concept intended by Zaslavski. In the foregoing, we have not given evidence in support of any definite determination of 'a', but of the existence of two directions of precization, one in the direction of authentic democracy, the other in the direction of authentic or nonauthentic democracy. We now ask, What is the delimitation of the group of phenomena intended to be called «nonauthentic democracy», but still «democracy»?

The broad concept of democracy may be said to comprise two main subconcepts, authentic and nonauthentic democracies.

There are, in Zaslavski's text, some names of phenomena that he considers *subsumable* under the nonauthentic democracies, for example, designations of denotata and of subgroups of nonauthentic democracies:

Bourgeois democracy

Slave democracy

British democracy

U.S. democracy

The democracy of the Athenian Republic

The democracy of France in the eighteenth century

Democracies that are democratic in at least one but not in all aspects
(cf. occ. 5, i₈)

There are in the text also names of phenomena falling outside both groups, authentic and nonauthentic democracies:

Fascist states (i_{52})

The government of Hungary after Versailles

The government of Poland after Versailles

The government of Yugoslavia after Versailles

The government of Bulgaria after Versailles

The government of Romania after Versailles (i_4 and i_5)

If there is a line of delimitation between nonauthentic democracies and nondemocracies, we shall have to try to find it somewhere between the two groups of phenomena named in the above lists.

Let us try to determine the aspects in which a state can be democratic according to Zaslavski.

1. States may be classed according to how great a part of the entire populace «exercises the power». It is said about the Athenian Republic that a part of the populace, the free citizens, had (more accurately «exercised») the power (inf_{11}). The capitalists have the real power in bourgeois democracy (inf_{15}). Soviet democracy, the most extensive democracy in the world, is not only the power of the majority; it is the power of the whole people (i_{66} , i_{67}). But the boundary between nonauthentic democracy and non-democracy cannot, without qualifications, be said to be identical with the distinction between the total and a part of the populace having the power. Zaslavski says that democracy is neither an aristocracy nor a plutocracy (inf_2 , inf_3 , and inf_4). The aristocracy and plutocracy are, on the other hand, parts of the total populace. Lacking more specific indications of where the boundary should go, we propose the following hypothesis:

(A) A state is democratic if the power is in the hands of a fairly large group of the populace, and the more democratic, the larger the part.

To guide an estimation of what is «fairly large», we can offer two instances from Zaslavski's text: the number of free citizens of Athens compared to the total population; and capitalists in twentieth-century England compared to the total population of England.

If our hypothesis is to be applicable to inference 15, the capitalists must, in the view of Zaslavski, be considered a fairly large group in the to-

VI. OCCURRENCE ANALYSIS

tal population. That is, some minorities must be considered numerous enough to be called «fairly large groups of the populace».

To guide an interpretation of «power lying in the hands of somebody», we can offer Zaslavski's characterization of Athens: representatives of Athenian citizens took decisions on state administration by consultation and votes (inf₈).

2. Probably relevant to the decision of whether a state is democratic is which part has power, not just how great the part is. Thus, it is a plus in democraticity if the part having power is relatively poor and (once in the past, or in the present) underprivileged (inf₂ and inf₄). Let us try to formulate a hypothesis in which reference is made to poverty and lack of privilege.

(B) A state is democratic if the power is in the hands of the poor, or the poor and other groups. The greater the power of the poor and traditionally underprivileged, the more democratic the state is.

This concept 'democratic'—which is highly similar to one of Aristotle's—must, I suppose, be integrated into any broader concept covering the Zaslavski's intention over large fields of occurrences. He says that democracy is not a plutocracy, the power of the rich. From that statement one might expect that the United States and Great Britain would not be called «democracies» by Zaslavski, but actually they are. That they are so called makes it plausible that he would restrict «plutocracy» to extreme forms of what is generally called by that name,²¹ or that in these occurrences (occs. 14, 69, and 70, inf₂ and inf₄), he uses «democracy» for «authentic democracy». The latter is, however, less probable. (Cf. the quotation on page 339 as a whole.)

The importance to democracy of the populace's being, or having been, poor and traditionally²² underprivileged, is confirmed, I think, not only by occs. 14, 69, and 70, but also by occ. 6 (i₁₁). According to Zaslavski, the French people had a democracy in the eighteenth century. From the sayings of Zaslavski we may infer that this democracy did not exist before the outbreak of the revolution in 1789. Zaslavski scarcely means that a fairly large part of the French nation in the «democracy of the French people in the eighteenth century» had power just as had the free citizens of Athens. He would probably admit that not much voting was done and that no consultations of a fairly large part of the populace were carried out. But Zaslavski

may want to stress that poor and underprivileged people were involved, and that leaders tried honestly to make decisions in favor of the great majority of the population. This may be one of the important things that makes him call a phenomenon between, let us say, 1789 and 1795 a «democracy». If so, we obtain support for hypothesis (B) rather than (A).

Nevertheless, not every occurrence is subsumable under (B). Thus, what is said in the sentences before and after occ. 83 (cf. inf₁₅, page 358) is not consistent with the view that in any democratic state, power is in the hands of the poor or underprivileged.

The phrase «has the power» is especially vague and ambiguous in the wording of (A) and (B). However, it would probably be difficult to precise these phrases. Zaslavski says that the USSR is guided by the Communist party (inf₂₈), but the power is in the people as a whole (i₆₇, i₆₈). It is not necessary, as just mentioned, that there should be an *institution* by which power is legally vested in the entire populace.

The hypothesis that Zaslavski's intended use follows (A) or (B) is not only rather vague, but also rather uncertain. I cannot see any reason to maintain that it is well established. The evidence is too meager. Of rival hypotheses I think the following are of high interest:

- (1) Zaslavski uses «democracy» in a broad sense of «authentic democracy or state of society lying in the line of development toward authentic democracy».
- (2) Zaslavski uses «democracy» in a broad sense of «authentic democracy or phenomenon traditionally called democracy».

In favor of hypothesis (1) we mention that Zaslavski stresses lines of development, and especially the necessity of bourgeois democracy as a stage in the past development toward Soviet democracy (i₄₈, i₅₃, i₅₄). The present-day nonauthentic democracies are all conceived to be in transition to something else. A state like that of democratic Athens might, if existing today, not have been called democratic by Zaslavski, because it would in his century not represent a new stage of development toward authentic democracy.

Zaslavski mentions, as an argument for not talking about democracy in general, that the forms are changing (i₃₉, i₄₀). This might indicate that the word «democracy» is retained whatever the changes, the conceptually es-

VI. OCCURRENCE ANALYSIS

sential thing being its causal relation with the first democracy, the Athenian Republic.

Against this argumentation in favor of (1), it may be objected that there is not much in the text to suggest that *causal* development is meant. Zaslavski seems just as likely to mean a succession of phenomena resembling in more and more aspects authentic democracy, but not necessarily causally connected as events within a country during a century. The criteria for whether a state is a link in such a development may not be anything other than the criteria of (A) and (B) already stated.

If a causal relation were intended and no stress were laid on (A) and (B), the rule of the thirty tyrants would be a further development of the democracy of the Athenian Republic, insofar as that republic developed causally into the rule of the thirty tyrants.

The causal interpretation of (1) is also difficult because, if there are a number of stages of development toward authentic democracy, all representing democracies but not authentic ones, one cannot but ask how the first link of the chain is recognized as such. I assume that Zaslavski would maintain that causally there is no break anywhere, and the ability to single out the Athenian Republic as the first link in the chain probably owes to certain minimum criteria of being a democracy, not to assumptions of causal nearness or weight. Thus, we arrive at the criteria of (A) or (B) or a combination of these with a third:

(C) If a state is democratic at a time S_1 , when the criteria (A) and (B) are used, but its democraticity is doubtful at an interval S_1 to S_2 following upon S_1 , the continuity in time and space may be taken as an additional criterion of democraticity and the state may still be called democratic.

The evidence of an additional criterion (C) being used, is, however, very shaky, and I would not find it justifiable to adopt it alongside (A) and (B).

With regard to hypothesis (2), a similar hypothesis was used on page 361ff. to interpret certain implicates. The instances that Zaslavski offers of nonauthentic democracies are all, except one, states or societies called «democracies» within a main Western tradition. This may suggest that by nonauthentic democracies Zaslavski simply meant «the phenomena *called*

«democracy» within the literature of certain traditions». He may not have used criteria other than the verbal label itself.

Hypothesis (2) may be said to maintain that Zaslavski only *uses* «democracy» in some sense of 'authentic democracy', and that when the term «democracy» occurs in wider senses, he might have placed it in quotation marks or replaced it with «so-called democracy».

Zaslavski says that a democracy with class antagonisms differs radically from one without such conflicts (i_{50}), and that Soviet democracy does not resemble the old form of democracy (i_{49}). If this is meant to imply that the two groups of phenomena have no politically relevant conceptual characteristics in common, then there would be no general concept of democracy including both authentic and nonauthentic ones. The nonauthentic, insofar as they showed class antagonisms, would not be democracies but could conveniently be referred to by the expression «so-called democracies».

When Zaslavski speaks of a democracy in eighteenth-century revolutionary France (i_{11}), he scarcely has the opinion that it was an authentic democracy. It was far too short-lived and confused to develop into something that Zaslavski would be willing to call «authentic democracy». If we accept hypothesis (2), we must therefore assume that Zaslavski classifies what he calls «democracy in France» as a 'so-called democracy'. This is unlikely, however. To speak of a «democracy» in eighteenth-century France is not usual outside Marxist literature. Thus, his use of a term like «so-called democracy» could no longer be taken as involving what he calls «bourgeois democracy» and politically similar structures, but would have to include «democracies» in Marxist usage. «So-called» would refer to «so-called within some tradition or other including the Marxist». If such a usage were intended, one would expect to find evidence of a still greater variety of phenomena being classed under «nonauthentic democracies», but the «French democracy of the eighteenth century» is *the only* subsumption under nonauthentic «democracy» that leads outside a main Western trend of usage. This may be taken as an argument against the assumption that Zaslavski intends to mean by «democracies, nonauthentic» the same as «anything whatsoever called «democracy» at some time or other».

It may well be, however, that the fact of something's having been *called* «democracy» has made Zaslavski more apt to call it «democracy»—regardless of definientia of (A) or (B) or any other, nonlabeled definientia.

VI. OCCURRENCE ANALYSIS

Even if that is granted, however, something more is needed to make it likely that he intended the label to be a conceptual characteristic of «nonauthentic democracy».

The strongest argument against (2) and related hypotheses, I think, may be drawn from Zaslavski's discussion of the nonauthentic democracies as stages in a development toward authentic democracy, and his insistence that the nonauthentic democracies have something in common that makes fascism their common enemy (i_{52}), etc.

In sum, I think it justifiable to maintain that the hypotheses that Zaslavski intends to use sense (A) or sense (B) are more tenable than hypotheses (1) and (2).

It would be rash, though, to conclude that (A) or (B) can be maintained as a fairly well confirmed hypothesis. Either one is a good working hypothesis for further investigation, but it should not be considered alone. There are a vast number of other hypotheses more or less similar to (A) or (B) as regards definiens and field of intended application that are at least as plausible.

A hypothesis of some interest can be constructed by combining of the definientia of (A) and (B):

(A \vee B) A state is democratic if the power is in the hands of a fairly large group of the populace or if the power is in the hands of the poor and traditionally underprivileged. The larger the part having power and the greater the power of the poor and traditionally underprivileged, the more democratic the state is.

As a hypothesis covering all occurrences, (B) has to be excluded, but it has some plausibility in relation to small groups of occurrences. Hypotheses (A) and (A \vee B) are the only ones among those considered above that can be used as working hypotheses with maximum intended field of application—the whole body of the 192 use occurrences in Zaslavski's text.

Since the primary aim of this chapter is to give a *general* description of occurrence analysis, we need not continue this discussion.

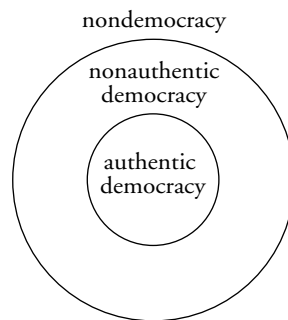
VI.15. Precization Possibilities of Narrow Concepts of 'Authentic Democracy'

In the following we shall try to make our hypothetical descriptive definition somewhat more precise by looking for evidence of what Zaslavski

B.VI.15. Precization Possibilities of Narrow Concepts of 'Authentic Democracy'

means by one of the phrases of the definiens expression, namely «authentic democracy». This avenue of increasing the preciseness of our description of Zaslavski's usage seems more promising than concentration on the delimitation of concepts of partial democracy.

Using a graphic analogy, we may say that our attention is concentrated on the border of the inner circle. In the foregoing sections we discussed grounds for determining the outer circle boundary, but found very few.



Looking for this kind of evidence, we shall use «total democracy» as a synonym for «authentic democracy». The former is more apt to guide us because «authentic» may more easily be given meanings in isolation from «democracy», and when it is thus isolated, the burden of evidence once more falls on search for the outer circle. «Authentic democracy» may be interpreted as «a democracy (in a broad sense) that is as it should be».

Some hypotheses:

- H1: «Total democracy» means to Zaslavski the same as «a state of society by which the total populace, in contrast to only a part of it, determines policies in questions concerning the society».
- H2: «Total democracy» means the same as «total absence of privileges for a part of the populace of a state, the privileges being economic (economic goods being bestowed without compensation for services to the community) or in the form of exclusive or heightened access to media of influence (communication media, or voting and eligibility powers, or powers to influence the preparation of voting processes)».

VI. OCCURRENCE ANALYSIS

- H3: «Total democracy» means the same as «a state of society in which all available means of influencing the state of society are made to serve the interests of the total populace rather than any specific part of it».
- H4: «Total democracy» means the same as «a kind of organization of society by which the possibilities of each member of the community to influence decisions and policies affecting it are maximized».
- H5: «Total democracy» is a name of a state in which the highest degree of democraticity has been reached. A state is to be considered more democratic than another if there is a greater chance that policies serving the interests of all inhabitants will prevail over policies in the interest of only a fraction.

These expressions, I confess, seem rather lengthy, considering the low level of preciseness gained by them. We would, however, encounter a number of difficulties if we attempted to improve the level without launching forth into the thin air of hypotheses that can be neither confirmed nor disconfirmed.

Compared with other texts providing so-called «definitions of democracy», Zaslavski's text is conspicuously lacking in one-word characterizations of the genus category. Usually «democracy» is said to be a form of government, a way of life, a kind of society, a kind of state, and so on. When Zaslavski says that «democracy» is «the power of the people», it does not help us much to conclude that democracy is a kind of power. Zaslavski does not call democracy a form of government or rule. He says, however, «The Athenian Republic was a democracy. The people there *exercised* the power» (inf₆, inf₇). There is a fairly great stress not only on actual ruling—administration and exercise of influence—but also on the interests of the populace being served (cf. i₉, i₂₂, and occ. 158 with preceding section, quoted here on page 343). The populace is not said to «direct» and «guide»; these terms are reserved to characterize the activity of the Communist party (inf₂₈).

The resemblances and differences between the activity of the Communist party in the USSR and the activity of minorities in bourgeois democracies are not extensively discussed. This makes it difficult to precize «having

power» and related expressions in Zaslavski's definitoid statements and other important sentences. He does not seem to regard it as a practical possibility that antagonisms could arise owing to divergent interests between members and nonmembers of the Communist party (inf_{27}). It is, therefore, not warranted to look for precizations of his term «authentic democracy» in which the expression «having power» is precized in such a way that the operation of mechanisms for obtaining and keeping influence are stipulated *per definitionem*, for example, in the normative definition of «authentic democracy».

It seems that, according to Zaslavski, the Soviet Union is the only state or federation of states that has reached the stage of authentic democracy (i_{18} , i_{64} , i_{68}). This might be taken as justification for attributing to Zaslavski a concept of total democracy by which concrete, precisely delimited procedures in the Soviet Union were mentioned in the definiens expression. It would be untenable, however, to maintain that for Zaslavski «authentic democracy» and «the Soviet Union» are synonymous. Many of his statements, especially those stressing that democracy is always in development (i_{48}), make it plausible to think of total democracies as being able to undergo variation in space and time. The Soviet Union is only the first authentic democracy. Consequently, it is not justifiable to conceive characteristics of the Soviet Union as conceptual characteristics of 'total democracy' without specific evidence. That the Soviet Union has a certain characteristic according to Zaslavski is a necessary but not a sufficient condition of its being a conceptual characteristic of 'total democracy'.

The above-formulated five tentative precizations seem (to me) to express rather different concepts. In spite of that, we do not find substantially more evidence favoring one of them over the others. The evidence is in every case meager, so meager that we consider it unprofitable to discuss it at length. If compelled to choose, we would prefer H_3 , but this choice would probably largely reflect preconceptions, formed before our study of Zaslavski's text began.

The concept H_1 refers to the question «Who influences and who determines policies?» H_1 stresses that the people as a whole do the job. H_2 stresses absence of inequality, not only in influence, but also in more direct possibilities for gratification of needs. H_3 shifts the emphasis still more toward ends rather than means, stressing actual satisfaction of needs and interests according to principles of equality.

VI. OCCURRENCE ANALYSIS

H₄ reverts to means and stresses equal and maximum *possibilities* of influence of each person. It differs from H₁ mainly in the fact that H₁ stresses actual causal relationships, whereas H₄ speaks of possibilities (for example, by certain institutions) and precizes in one direction the metaphor of a total populace «determining» something.

H₅ introduces a scale «more democratic than», which might well be introduced in H₁–H₄ as well. It stresses *consequences* of decisions rather than the structure of power and influence within society.

The differences among the hypotheses are considerable if we measure them by the degree of differentiation of standpoints prevalent among political scientists and ideologists. This mirrors the uncertainty of our conclusions, and probably also a large degree of indetermination in Zaslavski's usage.

C. More on the Theory of Occurrence Analysis

VI.16. The Function of Assumption About Uniformity of Use

In the foregoing discussion certain kinds of relevant arguments were left out of consideration. This was done because, despite of their *great potential* power of confirmation or disconfirmation owing to a high degree of relevance, the amount of supporting evidence that can be collected from the text is very meager and doubtful. The kinds of arguments can be likened to cups placed far out on the arms of a balance scale. A small weight placed in one of the cups may outbalance great weights on the opposite side when the latter are placed at fairly small distances from the center of the scale—but, alas, there is no material or very little material at hand that it would be justifiable to place in the distant left cup rather than in the near right one, or vice versa.

A hypothesis may stand up well if the intended field of application is limited to a certain part of the occurrences or text. In other parts, other hypotheses may fit better.

We have in the discussion of certain hypotheses about usage implicitly assumed that Zaslavski uses «democracy» in, at most, not more than two different ways. We have not discussed the possibility that he uses it in several other ways, and that one can find material to show how the occurrences are well accounted for by multiple ambiguity.

There is a very strong argument in favor of *starting* our occurrence

analysis with step 4, without any hypothesis of ambiguity. The natural way to proceed is to try out one hypothesis on usage, and to refrain from taking up a new one until an occurrence is found that is difficult to subsume under the initial hypothesis. The evidence of plurality of meanings must go with analysis of a multiplicity of occurrences. Some of the occurrences considered in the foregoing sections suggest the existence of ambiguities, but for expository reasons those ambiguities were not mentioned. We shall now discuss to what degree they and their contexts warrant a partition of the text into various fields of application of hypotheses, each of which occupies only a part of the text. Let us consider some such hypotheses:

- H1: At occs. 73 and 74 (see page 356, inf₅, inf₆) Zaslavski uses «democracy» to mean the same as «state of society in which the people or elected representatives gather to decide questions of state by discussion and vote». This may also be the sense intended in occs. 75–77.

The hypothesis may account for occ. 78 as well. At least, the occurrence sentence does not need to be so interpreted that it disconfirms H1 as applied to occs. 73–77; it may be interpreted as «Slave democracies do not belong to a kind of democracy we designate by the word «democracy» when used for *our* kind of democracy, namely, authentic democracy». Zaslavski intends, in other words, to say that when he uses «democracy» for «authentic democracy», its sense is not identical with «democracy» as used in «slave democracy». If «slave democracy» is not taken as one technical term, but is interpreted as «democracy», subclass «slave democracy», then «democracy» as a designation of the wider class can be interpreted as indicated by H1.

- H2: «Democracy» as used in occs. 101–02 (i₅₀; see page 359) is by Zaslavski intended to mean the same as «authentic democracy or anything called «democracy» within the Western bourgeois tradition».
- H3: In occs. 86–123 Zaslavski intends to use «democracy» in the sense of «authentic democracy or a state of society lying in the line of development toward authentic democracy».

VI. OCCURRENCE ANALYSIS

In favor of H₁ it can be said that occs. 73 and 74 (see quotation, page 355) easily lend themselves to the construction that a republic is a democracy if there is democratic administration, this being a sufficient criterion of democracy, and a definitional one. The next text sentence, I think, can also be taken as confirming H₁. There, «to exercise power» seems to be taken as criterion, and considering the opening phrases of chapter 2 (see quotation, page 339), where «democracy» is said to be «the power of the people», it may well be taken as definitional. To exercise power seems, then, in the next sentence (quotation, here page 355) to be described in terms of electing representatives and voting.

When the Athenian Republic is termed a «slave democracy» (cf. occs. 76 and 77, page 357), the difference from authentic democracy can be thought of in terms of a limitation of electing and voting power within the total populace.

The crucial point to discuss now is whether hypotheses H₁–H₃ should be regarded as confirmed to such a degree that a partition of the total field of application is warranted. What is the status of the already discussed universal hypotheses (A) and (A v B) in relation to the restricted hypotheses H₁–H₃? What is the weight of arguments for and against a partition of the total field of application into a major field covered by hypothesis (A) or (A v B), and one or two small fields covered by H₁, H₂, or H₃? Such a partition amounts to a hypothesis that Zaslavski uses «democracy» in two or three ways.

At occs. 73 and 74, Zaslavski describes the administration of the Athenian Republic and says that this republic was a «democracy». It is, of course, tempting at this place to attribute a connotation to «democracy» in terms of the description of the Athenian Republic, but the connotations of hypotheses (A) and (A v B) are also applicable to occs. 73 and 74. There are no strong reasons to suspect that because Zaslavski at occs. 73 and 74 happens to discuss the Athenian Republic, he adopts a concept of 'democracy' with conceptual characteristics more or less identical to the characteristics of the Athenian Republic. His saying that it was a «democracy» (occ. 74) would then be of little interest in the general discussion about «democracies». It is more reasonable to expect a certain amount of *uniformity of intended use*, which makes the statement that the Athenian Republic was a «democracy» into a hypothesis of subsumption: the republic can be subsumed under a concept under which a number of other states or societies can be subsumed.

If H₁ is adopted, the statement would not in its pretensions differ much from a tautology: the Athenian Republic was the Athenian Republic.

Occs. 101 and 102 are subsumable under (A) and (A ∨ B) without serious difficulties. One may conceive (A ∨ B) as better adjusted to those occurrences than (A), but neither of them gets any disconfirmation by reference to occs. 101 and 102. One may, therefore, say that those occurrences do not motivate any abandonment of the universal claim of (A) and (A ∨ B).

In the case of H₁–H₃, as in many other cases, a hypothesis of discontinuity in the use of a term introduces serious disturbances into the general argumentation of the text. The presumption should in such cases be in favor of uniformity.

Apart from this argument for a presumption of uniformity of use, one may roughly formulate a very general one: if someone uses a term in a definite sense at one place, there will on the whole be a disposition to use the term in the same or a very similar sense at other places. Without such a disposition, communication would be difficult indeed.

If the field of application of H₁, H₂, and H₃ is widened, they are heavily disconfirmed: they cannot compete with (A) and (A ∨ B) in relation to broader fields. They presume a sudden discontinuity or discontinuities in use of the term «democracy». Such discontinuities may, of course, exist, but the presumption is against them, if special reasons are found for their invocation.²³

Applied to hypothesis H₁, the uniformity argument says that if «democracy» in some or all occurrences other than occs. 73 and 74 seems to be used otherwise than indicated in H₁, this justifies a presumption that «democracy» is used that way even in the intended field of application of H₁, that is, even in occs. 73 and 74. Thus, occurrences other than occs. 73 and 74 are relevant to the question of how «democracy» is used in occs. 73 and 74. Claim and relevancy must be distinguished.

When we say that the likelihood that the same sense is intended in occurrence number y as in occurrence number x is greater than the likelihood of ambiguity, the kind of hypothesis made can be written in our usual terminology:

«The likelihood of Syn(aP₁S₁, aP₁S₂) is greater than –Syn(aP₁S₁, aP₁S₂) if S₁ and S₂ are both part of the same text».

VI. OCCURRENCE ANALYSIS

Or better, if «occ. x» stands for «as used in occurrence sentence x of a certain text» and «occ. y» applies by definition to the same text, we can write:

«Given a pair of occurrence sentences selected at random from a certain text, the likelihood of $\text{Syn}(aP_1\text{Occ.x}, aP_1\text{Occ.y})$ is greater than that of $\text{-Syn}(aP_1\text{Occ.x}, aP_1\text{Occ.y})$ ».

If it is objected that, at least for the interpretations of «same meaning» adopted in the next chapter, this cannot hold or is at least highly speculative, I would answer that at least in the case of «a» in the formula standing for «democracy» and P_1 for Zaslavski, we have no reason to imply a definiteness of intention that would make it possible to distinguish, let us say, 100 different meanings within the text *La démocratie soviétique*.²⁴

The contention that one cannot expect the word ever to be used twice with *exactly* the same meaning either presupposes a much looser and wider connotation of «meaning» than is introduced in the next chapter, or applies only to well-delimited concepts in which small differences of meaning can be detected and mapped out in relation to an exact frame of reference.

VI.17. Assumptions About Definiteness of Intention

Painstaking occurrence analysis of cognitive meaning²⁵ may roughly be described as an analysis of intended meanings, but it would greatly increase the likelihood of misunderstanding if occurrence analysis were said to be an analysis of the exact meanings intended. It seems often to be implied that exact analysis leading to exact results is impossible if highly vague and ambiguous expressions are investigated. I should rather say that a number of formidable practical obstacles are met with in such cases, but none of principle.

The guiding hypothesis of the last sections has been that Zaslavski's usage follows two patterns. They can be indicated by two main directions of precization, one suggested by synonymity between «democracy» and «authentic democracy», the other by synonymity between «democracy» and «authentic democracy or nonauthentic democracy». The definiens expressions in these descriptive definitions have a comparatively low level of

preciseness, primarily because we do not presume Zaslavski's definiteness of intention to have been deeper than is normal in texts of a propagandistic nature.

The greater the preciseness of the definiens expression, the greater will be the number of items to be confirmed or disconfirmed by occurrence analysis. The total amount of evidence is, however, very small. This is another important reason for keeping the definiens expressions of guiding hypotheses on a low level of precision.

Comparing the guiding hypothesis (page 361) with H₁ (page 373), we find that the lack of preciseness of the former constitutes a fairly strong argument in its favor, but having confirmed to some degree that Zaslavski uses T₂ rather than T₁ throughout his book (page 361), we may proceed to state hypotheses of a somewhat higher level of preciseness. This is in accordance with the general procedure to circumscribe Zaslavski's usage within narrower and narrower borders until the coarseness of the object studied makes it unwarranted to proceed further, for example, until the limit of Zaslavski's definiteness of intention seems to be reached at every point.

It is, of course, highly speculative to decide where such limits lie on the basis of occurrence analysis. If Zaslavski had written a longer book on the same subject and we had 10,000 occurrences to analyze, the prospects of tracing his usage (in the fairly narrow sense of cognitive connotation) would be better. Two hundred occurrences cannot be viewed as a big number for our purposes. This we wish to stress, because judged from prevalent practice in analytical philosophy and opinion analysis, much smaller numbers of occurrences seem to be viewed as sufficient for establishing descriptive definitions with great pretensions of preciseness and tenability.

VI.18. Linguistics and Occurrence Analysis: Method of Opposites

Linguists may ask whether occurrence analysis makes use of the method of delimitation of meanings that is so fruitful in general linguistics and in philology. In those fields, to find out what an author means by a word, it is often convenient to ask, What is the word or designation for the opposite? By always looking for opposites and for how the term and its opposite or opposites mutually divide the semantical field, we can step-by-step delimit

VI. OCCURRENCE ANALYSIS

the meaning of each term. In no case is it possible to delimit the meaning of a definite term without investigation of the use of other terms.

From the foregoing discussions it should be clear that occurrences of «democracy» in which «democracy» is declared to be the opposite of something else, are particularly welcome to the occurrence analyst. It would, however, lead us astray if we were to take at face value such conventional opposites as are commonly supposed to exist. It is, for example, sometimes said that «monarchy» is an opposite of «democracy». If Zaslavski's text had contained an occurrence such as «No democracy is a monarchy», it would have been eagerly listed by the occurrence analyst. There is, however, no such occurrence. Zaslavski speaks about «bourgeois democracy» and mentions as an example the English «democracy». He would probably hold that some of the bourgeois democracies are monarchies. There is at least no clear evidence of a consistent opposition between «democracy» and «monarchy» in Zaslavski's terminology. Opposite authentic as well as nonauthentic democracies—in one of the terminological systems that might be attributed (not without some arbitrariness) to Zaslavski—we find what Zaslavski terms «fascist states». From occurrences we can infer that, for example, the government of Bulgaria after Versailles was not «democratic» in any sense that Zaslavski seems to make use of. By hypotheses about how Zaslavski conceived that government, we can obtain some evidence about general features characterizing governments being «antidemocratic».

One of the complicating factors is the existence of an adjective «democratic» such that a state held to be «democratic» in one single respect might be called a democracy (cf. occ. 5, i₈). This makes it possible for Zaslavski to use—sometimes—a very broad concept of democracy. At other times he seems to have more restricted concepts in mind. We shall therefore in any case have to consider a great variety of systems of opposites. It does not lead us anywhere to inquire about «the» opposite.

Many terms in occurrence sentences are relevant to the central term studied. Thus, the term «people» needs special attention. All occurrences of that term ought to be carefully considered, because «democracy» and «rule of the people» in some sense seem to be closely associated in the mind of Zaslavski. Thus, many terms that are not opposites of «democracy» need auxiliary analysis.

Close attention to all occurrences in which something is said *not* to be a

democracy, or is otherwise taken as «opposite» in some of the many senses of this term (cf. the logical «square of opposition»), is highly recommended in occurrence analysis, but the technique does not give the analyst an *open sesame* by which reliable conclusions can be rapidly obtained.

One of the reasons that looking for opposites is so important in philology seems to be that when usage is stable, single words often acquire as opposites other single words. Thus, there is often a pair of words mutually determining each other's meanings. A change in the one affects a change in the other. We get relatively simple semantical fields.

In semantical analysis of more or less technical and unstable terminology, there is much less time for such systems of single words to evolve. Designations consisting of several words play a much more important role. In Zaslavski's text we have a series of complex designations of central importance to the study of his use of «democracy»: «bourgeois democracy», «slave democracy», «authentic democracy», and many others.

There are some combinations that we may expect to be consistently ruled out in his terminology, for example, «fascist democracy».

He would, perhaps, not *use* the designation «monarchical democracy» or «plutocratic democracy», but this would not rule out the possibility that he considers many democracies to be monarchies or plutocracies. The variety of complex designations makes systems of opposites complex and unstable. Thinking about the opposite of «slave democracy», we may concentrate our attention on «not-slave democracies» or «slave not-democracies» or «not-slave not-democracies» or «not-(slave democracies)». In cases of a designation with three important words, the «not»'s can be placed in eleven different arrangements of the kind indicated. One may not expect that an author makes a consistent choice, but rather that he uses his key terms to suit the general argumentation according to rhetorical rather than logical rules.

Summing up, we should say that looking for opposites is a good rule of thumb to be recommended in occurrence analysis. The most important expressions functioning in one or more occurrence sentences as opposites (in some sense of this term) should be singled out and considered separately. This has not been done in the Zaslavski analysis as it is described above, but it was omitted for expository, not methodological, reasons.

A more complete description of an occurrence analysis of «democracy»

VI. OCCURRENCE ANALYSIS

would include subordinate occurrence analyses of all key terms in key occurrence sentences. Thus, we should list and investigate terms such as «people», «rule», «fascist», «aristocracy», and others.²⁶

VI.19. Concluding Remarks on the Connotational Occurrence Analysis

By means of occurrence analysis we have been able to correct the impression that one is likely to form of Zaslavski's usage if one limits the inquiry to his «definitions» or, more generally, to his definitoid statements. Those statements suggest a much narrower concept than do the rest of the occurrences.

We have also been able to suggest several possibilities of meaning of the term «authentic democracy», that are compatible with all occurrences but for which there is little differential evidence (evidence favoring one particular hypothesis over others in a group of hypotheses). The definiens expressions have a level of preciseness that we deem more satisfactory than that of Zaslavski's «power of the people, by the people, for the people», for example, but they are still too vague and ambiguous for serious purposes of classification of items into authentic and nonauthentic democracies.

Given the results of the analysis, which I personally regret are not more definite and far-reaching, the question is likely to be asked, Could not much more of importance be said about Zaslavski's usage on the basis of his text?

Certainly. We have concentrated on possible connotations of a single word. We do not doubt that to find such connotations is of great importance in any attempt at clarification and, more generally, in any attempt to raise the level of efficiency of communication for cognitive purposes, but this does not lessen the importance of other types of inquiries. It is highly desirable that painstaking inquiries of other kinds be undertaken in conjunction with the connotational occurrence analysis. The description of them does not belong to this chapter, however, so we shall limit ourselves to offering an outline of the kinds of inquiries we have in mind.

VI.20. Occurrence Analysis of Other Varieties

What are (the) conditions that Zaslavski would consider *necessary* to call something a «democracy»?

From sentences such as «--- is incompatible with democracy» and «There is no democracy if ---», one can infer that certain conditions are considered necessary. Some of the inferences mentioned above (i_{42} , i_{43} , inf_3 , inf_4 , inf_{30} , inf_{31} , inf_{32}) provide evidence of conditions *sine qua non*.

Likewise, it is fruitful to ask, What are (the) conditions that Zaslavski would consider *sufficient* for calling something a democracy?

We write «the» in parentheses to suggest that there may be an indefinite number of sets of sufficient conditions, and that there may be complete sets of necessary conditions corresponding to each set of sufficient conditions. (However, the sets of necessary conditions may have conditions in common.)

Some would maintain that if we know a complete set of necessary conditions, then the set expresses a connotation. If by a «*complete* set of necessary conditions» is meant a set the conjunction of which would give a connotation (interpretation) rather than any other kind of sufficient conditions, we must expect to find it difficult to pick out a complete set from a list of necessary conditions. If a set is meant the conjunction of which is *at least* a sufficient condition, but which might be more than sufficient, we shall have difficulties in picking out which sets correspond to just sufficient conditions.

These difficulties are just the kinds of difficulties we have encountered in the foregoing sections. The quest for connotations by means of lists of necessary and sufficient conditions therefore does not open up new fields of evidence.

Nevertheless, such a quest is well motivated because its by-product, the lists of conditions, is itself of value for its descriptions of «usage» in a broader meaning. Such lists indicate characterizations of democracy, basic evaluations and descriptions; and the necessary conditions listed are common characteristics of any democracy. Incidentally they may give suggestions for condensed characterizations in the sense of R-definitions (see chapter 4, section 11, page 195).

If, in addition to such descriptions, we can derive some information on the connotations of the word, the value of the lists is increased, but even without the addition, such lists may be useful.

If the lists are worked out in close connection with occurrences of the term «democracy», for example, one may call the inquiry an «occurrence analysis», but not a «connotational» one.

VI. OCCURRENCE ANALYSIS

For the sociology and social psychology of controversy, for ideology research, and for a myriad of related kinds of investigations, it is important to find out whether a given occurrence sentence of the term «democracy» correlates with appreciation or depreciation of «democracy» (whatever the term may connote). For each occurrence one may ask for symptoms of appreciation, first, in the view of the sender (Zaslavski), and second, in the view of various categories of receivers, for example, French Communists, French de Gaullists, French undecided voters.

Here there is no room for appreciative occurrence analysis, but some hypotheses concerning the results of such an analysis may be stated:

1. There is no single instance of «authentic democracy» (or any synonym) being used depreciatorily in the sense of «used in a sentence expressing something unfavorable about authentic democracy». This holds true if the (hypothetically) inferred evaluations of Zaslavski are used to delimit favorableness from unfavorableness. But it holds also for most of the groups that are prospective readers of the text.
2. There are a great number of instances of «authentic democracy» being used appreciatorily by Zaslavski.
3. The term «democracy», when used without qualifying attributes such as «authentic» or «bourgeois», is never used depreciatorily, but very often appreciatorily. It seems to differ from «authentic democracy» (cf. items 1 and 2) in degree and frequency of appreciations.
4. The terms «bourgeois democracy», «partial democracy», and so forth, marking democracies other than «authentic democracies», are almost never used appreciatorily. The exceptions are occs. 114 and 115 (see pages 341–42), where the bourgeois democracies are said to have been necessary for the development of authentic democracy.

These and other regularities in appreciation relations justify an inference from appreciation to connotation: if Zaslavski were to say something unfavorable about «democracy», it is likely that he would take «democracy» in wide connotations that included the bourgeois democracies. Care must be taken, however, to avoid first counting an occurrence as evidence of a wide connotation *because of* depreciatory contents, and then later justify-

ing the inference on the basis that the occurrence shows the correlation of a wide connotation with unfavorable content.

Terms such as «appreciation» need clarification. There is also an urgent need for criteria that make it fairly precise to say that a certain occurrence is an instance of depreciatory use. The foregoing are only casual remarks.

As a last form of analysis that we should like to call «occurrence analysis», we mention «occurrence analysis for prediction and explanation of usage», especially analysis that tries to establish short hypotheses on regularities of use that can be relied on to hold in the future.²⁷ To be more explicit:

In all the foregoing kinds of analyses, we have had the intentions or evaluations of the sender in mind, when talking about connotation, meaning, appreciation, and so on. We may, however, ask the following kinds of questions: From what rules will it, for me, be most expedient and secure to predict whether Zaslavski would call something a «democracy» or an «authentic democracy»? Which are the most easily recognizable, common, and specific characteristics of denotata of «authentic democracy», as this term is used by Zaslavski?

If I were to answer such questions without further inquiry, I would first of all use the following rule: if something is recognized as a specific trait of the state of society in the Soviet Union, it will be, by Zaslavski, appreciated and will, according to him, belong to the characteristics of authentic democracy in general or to a subclass of authentic democracies. That is, it may be predicted that Zaslavski would be willing to use the term «authentic democracy» or «being characteristic of a true democracy» about the trait in question. When Beard (1934) analyzed occurrences of «national interest» and found the expression to stand for «banking interest», and so on, he made, in our terminology, a prediction analysis. That is, he found rules by which to predict and explain a usage on the basis of regularities of the denotata.

If an author has the intention of following his definition, his subsequent acts of subsumption may be very difficult to predict on the basis of that definition because of its lack of precision, lack of definiteness of intention, and so on. It may be practicable to predict his use by means of certain psychological and sociological characteristics, such as his membership in certain groups, a dominant evaluation he has in common with others, or some propaganda purpose one can be fairly sure he is pursuing. If the defini-

VI. OCCURRENCE ANALYSIS

tion he intends to follow is fairly precise and if it belongs to a field of discussion such as hydrodynamics, his explicitly formed intentions may be much more trustworthy and fruitful evidence of future use—even if the terms are apparently emotionally and ideologically loaded (for example, «cold front» and other terms of meteorology). If, however, the psychological and sociological classifications of today are uncritically adopted, one may expect very deplorable results from the standpoint of the theory of interpretation and preciseness: we obtain counterpropaganda and propaganda against propaganda instead of cool, painstaking scientific analyses of communication. Thus, we get the kind of counterpropaganda consisting in utter neglect of the sender's intentions, and then claiming that what he means by a eulogistic term is synonymous with what the analyst thinks is specific of the denotata that the sender mentions. For example, «authentic democracy» might in a piece of propaganda against the Soviet Union be said to *mean for Zaslavski* «dictatorship of the Communist party sustained by secret police and concentration camps».

This is not the place to discuss problems of this kind. Suffice it to say that the importance of occurrence analysis in the search for connotations may be overestimated, and that anybody writing extensively about the subject may be suspected of having such an overestimation. The search for intended meanings may, however, also be underrated, and anybody making content analysis and other semantical and related inquiries without going into the question of connotations may be suspected of underrating its importance.

Finally, we have devoted so much space to connotational occurrence analysis because other kinds of analysis can make use of the procedures of connotational analysis and do not, on the whole, present so many difficulties.

VII

Introduction of a Group of Concepts or Tests of Synonymity

A. Concepts of Intrapersonal Synonymity

VII.1. Introduction

By a «concept of synonymity» we shall mean a concept with «synonymity», «synonymous», «sameness of meaning», «likeness of meaning», or closely related terms as concept designations.¹ This normative definition of «concept of synonymity» is such that no concept can *per definitionem* be ruled out as a synonymity concept on the basis of its conceptual characteristics (content). As long as the designation is «synonymity» or certain related expressions, it is, according to the above convention, a concept of synonymity. Thus, if someone were to introduce the term «sameness of meaning» by stipulating the conceptual characteristic 'sameness of length', we should have to include the latter concept in our family of synonymity concepts.

On the one hand, the proposed use of the term «concept of synonymity» is such that it makes a sentence of the kind «This is a concept of synonymity» rather trivial. Such a sentence says two things: that «this» is a concept and that it is expressed by a member of a small class of words—«synonymity» and others.

On the other hand, one may expect that many concepts of synonymity show common features—if they do not, one may ask, why should the designations be the same or closely similar? The history of designations suggests that such expectations are often frustrated. The amount of similarity may not be great, being merely the result of human caprice.

The terms «synonymity», «synonymous», and so forth, have had a

VII. INTRODUCTION OF A GROUP OF CONCEPTS

long history, and there is no evidence that they have been used in the same way by all users. On the contrary, there are conflicting normative and descriptive definitions and, probably, conflicting usages. At the time of Aristotle, e.g., «synonymous» seems to have had a meaning closely related to what now is often called «unequivocal».²

Some authors speak about «the» concept of synonymy as if there were one concept that is the real concept of synonymy, whereas other concepts, whatever their concept designations or conceptual characteristics, cannot possibly be the real one. We have no good reason, so far I can judge, to single out any definite concept in this way. This holds also in relation to «the» concept of cognitive or logical synonymy. Other authors have pointed out weaknesses inherent in some proposed synonymy concepts.

In this chapter we shall introduce a series of families of concepts. They happen to have certain features in common that make it convenient to use «synonymy» or closely related terms as concept designations. Not much emphasis is placed upon the tenability of this view concerning convenience, however. It may well be that, in the long run, it turns out not to be convenient to call them by the proposed name. Our contention is that each of the entities introduced is, at the time this work is being written, fruitful. They are at the moment useful in certain kinds of investigations. The question of naming the concepts is considered a minor issue.

The entities to be introduced are called «concepts». Perhaps «tests» (or «test-batteries») would be a better term, but it is not used, because it might lead to the assumption that something definite is tested by all the synonymy tests, namely synonymy. The history of misconceptions about intelligence tests has been a warning for us (see, e.g., Goodenough 1949: 97ff.).

There is no reason to expect a future state of affairs such that «synonymy» or «sameness of meaning» will express only a single concept.

«Synonymy» and the other, closely related terms are currently used in very different fields of investigation, for example, in lexicography and in the field of semantic systems in the sense of Carnap. At present, little evidence exists that a concept designated «synonymy» will be adopted in all fields and that no other fruitful concepts will be designated by that term. Perhaps such a state of affairs eventually will be reached, but there is currently no methodological advantage in trying to reach it.

In this respect, the search for one concept of sameness of meaning is on

the level of the search for one concept of intelligence, learning, suggestibility, memory, attention, social norm or ideology. Such vague and ambiguous key terms are important in research, but attempts to find, for example, a concept of intelligence that might once and for all give to that term a rather definite meaning have been unfruitful. The concepts of synonymy to be introduced here have certain features in common with so-called «intelligence tests». One may among psychologists speak of such tests without being accused of believing that those tests measure something definite, 'intelligence', which can be tested in various ways and is independent of any special procedure of testing.

In this chapter a number of concepts will be introduced which are, as far as we can judge, fruitful concepts in *present-day research*. Whether they will be fruitful in twenty years we do not wish to predict. Probably some will be discarded and new ones adopted.

VII.2. The N-Concepts of Synonymy: Synonymy Identified with Presence of a Rule Proclaiming Sameness of Sense

In this section we shall consider a direction of precization of ««a» means (not) the same as «b»». ³ The direction can be roughly indicated by the formulations (I) and (IA):

- (I) That an expression means the same as another means that there is a rule which says or implies that the two expressions are to mean the same.
- (IA) That an expression does not mean the same as another means that there is a rule according to which the two expressions do not mean the same.

For example, «prime number» and «*Primzahl*» mean the same because according to mathematical terminological rules, both shall designate numbers that are not divisible except by the number 1 and themselves.

Precizations and Elaborations

- (1.1) ««a» means the same as «b»» shall mean the same as «there is somewhere a completely and explicitly formulated rule that states (or implies) that «a» and «b» shall mean the same».

VII. INTRODUCTION OF A GROUP OF CONCEPTS

The parenthetical «or implies» suggests an alternative; let us call it (1.2).

Assertions that «a» means the same as «b» would, if (1.1) is adopted, not state anything more than that there exists somewhere a rule of a certain kind. If the distinction between rule formulation and rule expressed by the rule formulation is adopted, the existence of a rule somewhere would be the same as the existence of at least one (rule) formulation somewhere that expresses the rule. Geographical indications have a fairly clear meaning in relation to formulations (expressions), not to rules.

(1.3) « a_i means the same as «b»» shall mean the same as «there is a synonymic normative definition which stipulates that «a» shall mean the same as «b» within a field of application M_1 , and a_i belongs to that field».⁴

The formulation (1.3) concerns definite instances of an expression «a», namely, instance number i , defined by its place in a text or by other space-interval references.

Common to all three definiens formulations of (1.1), (1.2), and (1.3) is the use of a «that» phrase: «*that* «a» and «b» *shall* mean the same». To ensure subsumability, we must obtain information about how this phrase is to be interpreted. An obvious, but for most purposes valueless, way of getting rid of the subsumability difficulties is to declare that the definiens requirement is satisfied if, and only if, there is an announcement *sentence* of the form ««a» and «b» shall mean the same». Only if we had constructed a language and introduced a set of «semantic rules» in the sense of Carnap would such a declaration give useful concepts of sameness of meaning. In relation to natural languages one has to take up the question, How do we find and formulate fruitful criteria of the presence of a rule announcing *that* «a» and «b» shall mean the same?

Let us proceed to the discussion of certain possibilities of contradictions if one attempts to use the above normative definitions in practice.

Let us accept as a postulate, that if «a» means the same as «b», «a» cannot *not* mean the same as «b», and vice versa. If two rules are found, one saying that «a» means the same as «b», and one that «a» does not mean the same as «b», both (1) and (1A) are satisfied. That is, our postulate is violated.

Such cases of violation are easily constructed. There are incompatible

terminological rules for numerous expressions in scientific literature. To avoid these violations, we suggest the following reformulation:

(1.11) «*a*» means the same as «*b*» within the field of application *M*»
means the same as «there is a rule that announces explicitly that «*a*»
shall mean the same as «*b*» within the field of application *M*».

If there are two authors, one announcing that «*a*» shall mean «*b*» within his works, and the other announcing that «*a*» shall not mean the same as «*b*» in his, there will be no simultaneous confirmation of (1) and (1A).

If, however, the fields of application *M*₁ and *M*₂ partly overlap, the announcements are in conflict, and (1) and (1A), even if formulated in the light of (1.11), may be confirmed simultaneously.

To avoid this result, one might reformulate the definiens of (1.11) as follows:

(T 1.12) «There is a rule that announces explicitly that «*a*» shall mean the same as «*b*» within the field of application *M*, and there is no rule announcing or implying the contrary.»

A corresponding concept of synonymy applied to single occurrences may be introduced as follows:

(1.21) «*a*₁ means the same as «*b*»» means the same as «there is a rule that announces explicitly that «*a*» shall mean the same as «*b*» within the field of application *M*, and *a*₁ belongs to that field».

Using previously introduced terms, we can reformulate and elaborate the definiens expression of (1.3) and (1.21) thusly:

T 1.31 «There is a synonymic or interpretative normative definition, 'N', that stipulates or implies that «*a*» shall mean the same as «*b*» within a field of application *M*, and *a*₁ belongs to the field *M*, and there is no synonymic or interpretative normative definition announcing something that, *per definitionem*, cannot be realized without violating the normative definition 'N'.»

The most frequent cases in which the first and second, but not the third, conceptual characteristics are satisfied are perhaps those in which different authors propose different and incompatible N-definitions with

VII. INTRODUCTION OF A GROUP OF CONCEPTS

the same intended field of application. If a modified definiendum is introduced, « a_i means for P the same as « b »», and « a » in requirement 1 of the definiens is replaced by «« a » for P», such cases are subsumable (but of course under a new concept). There is no incompatibility between the announcement of one author that « a » shall mean b , for him, and that of another who announces that for him « a » shall mean non- b .

The normative definition of « a_i means the same as « b »» having (T 1.31) as definiens expression will be said to introduce «the concept of synonymy as presence of synonymy norm», or, in short, «*the N-concept (norm concept) of synonymy*» or 'N-synonymy'.⁵

By means of previously introduced symbols and a new prefix, assertions that an instance a_i of an expression « a » is N-synonymous with an expression « b » may be thus symbolized as N-Syn(a_i M_1 b M_2).

VII.3. Limited Fruitfulness of 'N-Synonymy'

The norm concept of synonymy is of very limited fruitfulness.⁶ We shall not use the concept in any other way than in formulating hypotheses that state that others use or do not use a concept similar to the norm concept of synonymy. The concept has the same kind of fruitfulness as that of 'real definition': for classification of concepts used by others. In a sense it may be said to be fruitful within the historiography of concept formation. Often, authors write as if in their synonymy sentences they try to express concepts of synonymy closely related to the norm concept of synonymy. The definiens (T 1.31) may sometimes be an interesting precization or transintentional precization of expressions such as «--- means the same as ---».

Lexicographers seem often to work as if they used a concept similar to our 'N-synonymy'. Thus, in dictionary articles dealing with technical terminology, their definiens expressions come from textbooks or technical papers in which the definiendum expression is introduced by means of normative definitions. Should a lexicographer be asked how he knows that his dictionary articles are correct, it is likely that he would merely cite his source for the definiens expression and add that the author quoted is considered competent. That is, the argumentation sometimes proceeds as if sameness of meaning as far as it is involved in lexicography concerns identity of the definiens expression in the dictionary with the definiens expres-

sion in a normative definition announced within a competency group. The concept of N-synonymy is therefore considered fruitful in attempts to describe what lexicographers are doing when writing dictionary articles about technical matters.

The strongest argument against any other than the historiographical use of the norm concept of synonymy may roughly be indicated by saying that it slurs over the fruitful distinction between presence of a rule and conformity with a rule. It is convenient to be able to say, «People announce rules, but the rules are not always followed in practice»—or in terms of definitions, «People announce their definitions, but one should bear in mind that they do not always follow them».

Suppose we adopt the norm concept of synonymy and find a sentence of the form «a is not always a b». If there is a normative definition covering the sentence that announces that «a» shall mean the same as «b», we should conclude that «a is not always a b» means the same as «b is not always a b». We would be unable to say, «If the normative definition has been followed, it is here stated that b is not always a b». Since this is nonsense, it is likely that «a» does not mean the same as «b» in this instance, in spite of the presence of the normative definition.

An example will make this point clear. Some authors use a normative definition of «prime number» or «*Primzahl*» such that, for plausible interpretations by ordinary readers, the number 1 would be subsumable. But from the occurrences of the term, it is more or less obvious that 1 is not taken as a prime number. Such a normative definition is, for example, the following: «eine natürliche Zahl, die ausser sich selbst und der Einheit keinen Teiler hat, soll eine Primzahl heissen».⁷

Only one part of the strongest argument against the norm concept of synonymy has so far been mentioned. The other part may roughly be expressed thusly: it is more convenient to use the following expressions as definiendum expressions if (T 1.31) is taken as definiens:

- (2.1) «a_i means the same as «b» according to N» or
- (2.2) «a_i means the same as «b» if N is followed» or
- (2.3) «There is a synonymic or interpretative normative definition such that a_i is covered by its field of application and such that, if that definition is followed, a_i means the same as «b»».

VII. INTRODUCTION OF A GROUP OF CONCEPTS

With this definiendum already established, useful verbal habits will be retained intact, and we get a fruitful concept. It will not, however, be called a «synonymity concept». The concept obtained by using (2.2) as definiendum and (T. 131) as definiens will be useful as a precization of sentences stating that something means something else *per definitionem*.

Instead of the definiendum expression « a_i means the same as «b»», one may use «According to an N-definition, a_i means the same as «b»». Retaining (T. 1.21), one gets a fruitful concept. It is important for many purposes to know whether an instance of an expression is covered by the intended field of a normative definition. The positive information that the instance is covered, and that the normative definition is such that, if followed, «a» means the same as «b», is of importance, first of all, in attempts to interpret «a». Provided we find it justifiable on psychological or other grounds to assume that the N-definition has been followed, interpretation of «a» is made easier provided «b» is fairly easy to interpret.

VII.4. N-Synonymity Hypotheses: How to Test Them

Roughly, one may say that N-synonymity hypotheses assert the presence of regulated usage of expressions and offer a key to understanding the rule governing the usage—or, more exactly, a rule that, if followed, would regulate the usage.

To establish an N-synonymity hypothesis, one has to point out a sentence, or certain sentences, and show that it expresses a synonymic or interpretative normative definition. *This involves interpretation hypotheses and elementary analysis, namely, a description of definitoid statements.*

If marginal references are vague or implicit, their interpretation offers many difficulties and uncertainties. Once we have established—with a greater or smaller degree of certainty—the presence of a synonymic or interpretative normative definition with marginal reference such that it covers the instance a_i that is under consideration, the next step is to establish by appropriate subsumption hypotheses that a_i belongs to the intended field of application of the rule. *This involves the kind of elementary analysis called «subsumption analysis».*

If positive results are obtained, the first two requirements of (T. 1.31) (page 393) are fulfilled. The third requirement offers peculiar difficulties

because its satisfaction requires disconfirmation of an existence sentence: one has to establish that there *does not exist* a second rule covering a_i such that, if that rule were followed, a_i could not also follow the first rule.

If one tries to find out whether the third requirement is fulfilled, important ambiguities of its formulation are revealed. Let us consider an instance of the term «probable». Because there is an intense interest in probability calculi and their application, philosophers, logicians, and mathematicians have produced a great many sentences that may be plausibly interpreted as synonymic or interpretative normative definitions covering *all* instances of «probable» produced after the production of the rule. That is, the theorists propose regulations for the use of the term «probable» without making any exceptions: the term shall mean this or that, whether produced by the framer of the regulations or not.

Consider this example of an argumentation pattern suggesting use of a concept 'normative synonymity': «--- another term which also antedates Lankester's paper of 1870 is *heterology*, proposed by E. D. Cope (1868) to designate «what Swainson and others called 'analogy' as distinguished from affinity». This very definition proves Cope's term to be synonymous with homoplasy, as here understood» (Haas and Simpson 1946: 281, 329).

It appears that Haas and Simpson consider Lankester to have proposed (something closely similar to)⁸ a normative definition of «heterology». They seem to quote the definiens expression of that normative definition, and seem to think that the content of the quotation is sufficient evidence for the reader of their paper to accept their hypothesis that «heterology» is synonymous with «homoplasy».

In the paper, Haas and Simpson do not formulate a normative definition of «homoplasy» with a definiens expression identical to the quotation from Lankester's paper. They do, however, use several slightly different expressions, and these expressions occur in their argumentation for or against preferences concerning the interpretation of «homoplasy». Therefore, one may consider that Haas and Simpson compare Lankester's definiens expression with a definiens expression they do not formulate explicitly but consider indicated sufficiently accurately in various sentences preceding the quotation from Lankester.

Haas and Simpson's text permits (of course) precisations in various directions. It is here only contended that one of these directions

VII. INTRODUCTION OF A GROUP OF CONCEPTS

leads to the hypothesis of N-synonymy between «heterology» and «homoplasia».

VII.5. The Ds-Concepts of Synonymy: Synonymy Identified with Reported Sameness of Meaning

This section will be devoted to the exposition of certain N-definition possibilities, some of which furnish fruitful concepts at the present stage of research.

Let us consider the following rather than obscure formulations:

- (i) That an expression means the same as another means that they are by competent people said to mean the same in use.
- (iA) That an expression does not mean the same as another means that they are by competent people said not to mean the same in use.

Rough example: «*Primzahl*» and «prime number» mean the same. That is, some or all mathematicians say that usage is such that they mean the same.

By means of precisizations and elaborations of the definiens expressions in (i) and (iA), concepts can be constructed that are fruitful within rather limited inquiries and expositions. Consider the following examples:

- (i.1) ««a» means the same as «b» for P» shall mean the same as «there is an assertion by the competent person P to the effect that, as used by him, «a» means the same as «b»».

This stipulation gives us an intrapersonal synonymy concept. Corresponding interpersonal concepts are of doubtful use.

- (i.2) «Syn($aP_1S_1bP_2S_2$)» shall mean the same as «there is an assertion Syn($aP_1S_1bP_2S_2$) by the competent person P_1 ».

The term «competent», here left unprecized, is, of course, in need of clarification, preferably in the form of tests. In the following, we presume that no conventions are adopted that assert that a certain person is competent, thereby *implying* that his hypothesis Syn($aP_1S_1bP_2S_2$) is true or tenable. The conventions would normally refer to competency in using a lan-

A.VII.6. Ds-Concepts of Synonymity Introduced by Reference to Questionnaire Procedures

guage and in talking about it. Formulation (1.2) might therefore be reformulated as follows:

(1.21) «Synonymity sentences» shall be used synonymously with
«sentences saying that there is an assertion expressed by the
synonymity sentences uttered by a competent person».

To adopt (1.2) or (1.21) as an expression of normative definition and to decide to use either would be highly inconvenient. We need distinctions of the kind now expressed by saying, for example, «The hypotheses that the English expression «a» means the same as the English expression «b» is highly misleading or even untenable, in spite of the fact that the hypothesis is asserted by all specialists in English usage». We need the distinction between the hypothesis that some or all competent people assert or are willing to assert a certain synonymity hypothesis, and the synonymity hypothesis itself.

For purely expository purposes, the expression ««a» is for P_1 in S_1 synonymous with «b»» may sometimes be used instead of « P_1 has [under certain standardized conditions] affirmed that he, in the situation S_1 , interprets «a» to mean the same as «b»».

In the next section certain questionnaires about usage are considered. In protocols describing the results of these questionnaires, expressions of the above kind occur so often that abbreviations are desirable. It has proved convenient, and not liable to misunderstanding, in the exposition of such questionnaire results to use an abbreviation that, under other circumstances than those of its application, would slur over the highly important distinction between hypotheses of usage and hypotheses stating that certain such hypotheses are made by competent people.

VII.6. Ds-Concepts of Synonymity Introduced by Reference to Questionnaire Procedures

Questionnaires of Type Qs1

By the term «Qs1 questionnaires» we refer to questionnaires that, roughly speaking, invite a person to read a text. In the text there is an expression T. After having read the text, the respondent is asked to imagine that the ex-

VII. INTRODUCTION OF A GROUP OF CONCEPTS

pression T does not occur there, and that an expression U occurs in its place. He is then asked whether he would have interpreted U to mean something different from what T meant to him when he read T.

Questionnaires of this kind, Qs_I, are obtained by selecting definite texts and a definite ordered pair of expressions, T and U. These expressions are called the «crucial» expressions.

A group of Qs_I questionnaires, which I and others have used, are translated from their Norwegian formulation as follows:

Qs_I, No. ---.

The analyst (carrying out the test) invites a respondent to read carefully a text presented to him.

After the respondent has read the text, the analyst says: This text was offered you as an example of a text that contains the expression «---». Let us call the expression T. What I should like to know is the following:

Imagine that the expression «. . .»—let us call it U—had occurred at the place that T occupies in the text and instead of it. Would U have expressed the same assertion to you as did T when you read T?

The last question is called «the synonymity question» of the questionnaire. Sometimes the questionnaire is given in written form. In that case, the respondent is asked to read the questionnaire line by line, not skipping ahead to read formulation U before T.

Qs_I is so worded that the respondent is talked about as a different person from the analyst. In analytic philosophy and lexicography, processes are sometimes performed by which the analyst asks himself the synonymity question or closely related questions. A slight modification will make Qs_I adapted to those cases.

Qs_I and all the other questionnaires of this section are adapted to intrapersonal relations. Respondents are asked about their own usage. Sometimes the additional instruction is given that we as analysts are only interested in what we ask about, not in how respondents believe that other people interpret the crucial expressions T and U.

The questionnaire described above is adapted to cases in which T and U may be expected to express assertions. That is, T and U are usually declarative sentences. An important modification has been made for cases in which T and U are designations. This subclass of Qs_I questionnaires we call Qsd_I questionnaires, where «d» stands for «designation». All of them have the same form:

A.VII.6. *Ds-Concepts of Synonymity Introduced by Reference to Questionnaire Procedures*

Qsd1. No. ---.

Text: ---.

Instruction: This text was presented to you as an example of a text containing the expression «---» [for example, «true»]. Let us call the expression T. What I should like to know is the following: Imagine that the expression «. . .» [for example, «quite sure»]—let us call it U—had occurred at the place of T in the text. Would the sentence containing U have expressed the same assertion to you as the sentence containing T did when you read T?

If we presume the respondents to be honest, a positive answer to a Qs1 questionnaire registers what certain persons believe about their usage. More precisely, a positive answer—if it is an answer to the question as intended by the analyst—registers that a person believes that if the questionnaire had contained an expression U instead of an expression T, this would not have made any difference to his interpretation.

Just what the respondent believes is uncertain, and his definiteness of intention may sometimes be extremely low. There are, however, important regularities in respondents' answers, and we feel fully justified in using the answers in studies of communication. The regularities are such that we may conveniently introduce some concepts of synonymity by means of the questionnaires.

'Qs1A-synonymity' is N-defined as follows:

- (1) By «T and U are Qs1A-synonymous for P in relation to S» we shall mean the same as «Confronted with a Qs1 questionnaire with T and U as crucial expressions and the text N, P answers positively».

Analogously, Qs1A-heteronymity is N-defined by negative answers.

The symbol S is that of situation, which here is delimited to the test situation in which P is confronted with a definite text and a synonymity question.

The concept is introduced in relation to a definite text. One might consider, as an interesting generalization, whether P would answer positively no matter what text T and U were put into. In general, one may expect that certain texts S might be found that would reverse P's answer.

We have not found it convenient to introduce a concept of such a kind that an assertion «T and U are for P in S Qs1-synonymous» means the same as «P answered positively when confronted at time t_0 with Qs1, ---». That is, we do not by the subsumption intend to limit our assertion to what hap-

VII. INTRODUCTION OF A GROUP OF CONCEPTS

pened at a definite instant, the moment t_0 when P answered positively, for example, by saying the one word «Yes». On the other hand, it is unlikely that any person would answer the same every year until his death. In the wording «P answers positively» of the definiens formulation in (1), the indefiniteness of the present tense leaves the door open for precizations in various directions, several of which may be of interest. In any case, a positive answer to a Qs1 question at a given moment shall, by definition, be taken as a (direct) confirmatory instance in relation to the hypotheses «T and U are in relation to S Qs1A-synonymous». If the test is repeated later, a second positive answer will be taken as another confirmatory instance.

Would it be adequate to say that by means of the questionnaire Qs1 and the concept 'Qs1A-synonymity', the term «synonymity» is operationally defined? It would not, in our opinion.

We do not intend, by the introduction of 'Qs1A-synonymity', to furnish one definite concept that in the future should be intended when we use the term «synonymity». We do not try to define synonymity operationally, if this expression is taken to imply that we look for a single concept by which the term is introduced in relation to a definite set of operations. We do not introduce, by (1), any concept 'synonymity', but a concept 'Qs1A-synonymity'. The word «synonymity» makes up the second half of our conceptual designation, not the whole of it. We only contend that some of the hypotheses that so far have included the term «synonymity» concern subject matters that make it fruitful to leave out the term «synonymity» as a complete designation and talk about Qs1A-synonymity instead. Thus, the relation between «synonymity» as used so far—for example, in «synonymity sentences»—and «Qs1A-synonymity» is much less intimate than in operationism.

When we try to use the material obtained by means of Qs1, the question immediately arises, Does the respondent understand the questionnaire approximately in the sense that the analyst intends it to be understood? Or are there indications that the answer is an answer to a rather different question from the one the analyst tried to communicate? We may affirm that T and U are Qs1A-synonymous without worrying about this point. There is need for a second concept, one much more difficult to handle than 'Qs1A-synonymity'.

(2) By «T and U are Qs1B-synonymous for P in relation to S» we shall mean the same as «Confronted with a Qs1 questionnaire with T and U as crucial expressions and the text N, P answers positively.

A.VII.6. Ds-Concepts of Synonymity Introduced by Reference to Questionnaire Procedures

In addition, the answer is an answer to the synonymity question interpreted as intended by the analyst».

An answer that directly confirms a case of Qs1A-synonymity does not necessarily confirm a case of Qs1B-synonymity. One must somehow obtain information about how the respondent has interpreted the questionnaire. The problem may be reduced to one of finding out whether certain interpersonal synonymity relations hold true. In part B of this chapter, some procedures are outlined by means of which one may acquire information of this kind. As long as no such procedures are outlined and connected with the intended meaning of (2), we do not regard «Qs1B-synonymity» as a designation of a workable concept in a theory of communication.

If fairly simple procedures were available for establishing interpersonal synonymity relations, we would not have bothered to introduce a concept like 'Qs1A-synonymity'. However, interpersonal synonymity hypotheses are problematic to such a degree that 'Qs1B-synonymity' is highly difficult to test. The test involves many doubtful auxiliary hypotheses. Because of these difficulties, 'Qs1A-synonymity' will be extensively used.

Questionnaires of Type Qs2

As questionnaires of kind Qs2, we class, roughly, those that invite the respondent to place an expression, T, in various imagined situations, and to consider for each situation whether he would have interpreted another expression, U, to express the same assertion that he considered T to express in those situations, provided U had occurred instead of T.

Qs2 has been used by myself and others as a supplement to a single Qs1 questionnaire or to a series of Qs1 questionnaires in which T and U have been held constant and the text has been changed. By using Qs2, the analyst asks much more of the respondent than he does by using Qs1. The answers should be taken with correspondingly more reserve. The material we have so far gathered by means of Qs2 questionnaires has, perhaps, been more useful for analyzing the limitations of questionnaire methods than for mapping out beliefs concerning the expressions T and U.

The first subtype of Qs2 questionnaires reads as follows:

Qs2. No. ---.

Let us consider the two sentences T and U.

VII. INTRODUCTION OF A GROUP OF CONCEPTS

T: ---.

U: ---.

Suppose you heard T uttered by a person who clearly put forth T as an assertion. Do you think you would interpret T in such a way that it expresses the same assertion as U, if U had occurred in the same context in which you in fact heard T uttered?

Suppose you hear T uttered under different circumstances, but always in such a way that it is considered to be uttered by a person who clearly puts forth T as an assertion. Underline that answer of the following three that you eventually believe is the right one:

Yes. In all situations of the kind mentioned.

Yes, in some, not all, such situations.

No. Not in any such situations.

The respondents answering Qs1 and Qs2 were encouraged to write comments, and from them the analyst could infer that, frequently, a kind of misunderstanding existed that reduced the value of the answers. Roughly, the respondents may be said first, to consider T in a definite context and then to consider how they would feel and think if somebody substituted U for T in that context. They immediately pose the question, Why should U be preferred to T? and they find that if T and U meant the same, T would not have been replaced by U. In other words, the respondents imagine the whole time that both T and U are already present within a situation prior to their being placed together in the questionnaire.

To avoid the confusion resulting from misinterpretation of the questionnaire, the analyst added the following instruction to Qs2:

Consider that you hear T uttered by a person who clearly puts forth T as an assertion. Consider, further, that he then utters U, either directly after T, or in a later part of a conversation or discussion.

The questions of Qs2 *are not concerned with such situations* in which you, within a certain context, hear T and, after that, U. The questions refer to definite contexts in which *only one of the formulations*, T, occurs. We ask you to imagine that U had occurred in the place of T, and ask you whether you would interpret T in such a way that it to you would express the same as U would have expressed to you if U had occurred in the place of T.

Referring to a particular set of questionnaires, Qs2 No. 1 and Qs2 No. 2 (quoted in chapter 8), in which T and U differed from each other only insofar as the one contained the expression «all numbers» and the other «all whole numbers», the additional instruction ended up with a related example:

A.VII.6. *Ds-Concepts of Synonymity Introduced by Reference to Questionnaire Procedures*

The following note in an answer is attributable to the misconception that we are concerned with a context in which a person exchanges T for U: «The person who puts forth T must have had a motive to precize «all numbers» by means of «all whole numbers». Therefore, I would not conceive T to express the same as U in any situations.»

Even with these additions, there were still persons who misconceived the intention of the analyst, and a new version of Qs2 was made. This version is identical to the original version except for the second sentence of the second paragraph. It reads in the new version:

Suppose you in that context had heard U uttered instead of T. You *only* hear *the one* formulation *not* first T and then U.

To what extent these reformulations helped convey the analyst's intention to respondents is discussed in chapter 8. The misconception considered above may be said to owe to the respondent's tendency to mix together his job as analyst with his job as an average member of a language community. As an analyst, his attention is focused on two expressions, T and U, within a particular kind of situation, but his job in this situation is to imagine situations in which T and U occur separately. The associations T and U released in the metalanguage of the questionnaire are taken to be associations that would also have been elicited if either T or U had occurred in the object language.

Just as two concepts, 'Qs1A-synonymity' and 'Qs1B-synonymity', were introduced in relation to the Qs1-questionnaires, we may introduce two analogous concepts 'Qs2A-' and 'Qs2B-synonymity' in relation to Qs2. Differences in results from different modifications of Qs2 may justify introducing the concepts by one definite version, for example, the third, which seems to cause the least amount of misunderstanding.

Questionnaires of Type Qs3

The questionnaire Qs2 does not ask respondents to imagine any kind of situation in which the crucial expression T might occur, but rather to limit their attention to cases in which T is used to express an assertion. Qs3 is simply Qs2 without that restriction. Qs3 was used mainly because we needed to use imperatives as crucial expressions.

Because Qs3 differs slightly from Qs2 in other ways, we shall quote the first version of Qs3 in toto:

VII. INTRODUCTION OF A GROUP OF CONCEPTS

Qs3. No. ---.

Let us consider the two sentences T and U:

T: ---.

U: ---.

Imagine that you utter, read, or hear T in some connection or other. Do you believe you would interpret T in such a direction that by T was meant the same as you would have understood by [Norwegian, «*lagt i*»] U, if that sentence had occurred where you in reality read or heard T?

To arrive at a reliable answer, imagine that you find or use T under different conditions.

Underline the answer you think is adequate (if any of them is adequate):

Yes. In all situations.

Yes. In some situations, but not in all.

No. Not in any situation.

To prevent the misconception arising from the respondent's imagining situations in which someone substitutes T by U, the analyst inserted a warning in the questionnaire, as was done in the third version of Qs2.

VII.7. Truth-Condition Concepts of Synonymity

In this section we shall consider some concepts with close relations to criteria of meaningfulness proposed by Pierce, James, Wittgenstein, Schlick, Carnap, and others.

Our preliminary formulations are:

- (1) Two sentences shall be said to mean the same if, and only if, the conditions under which the one is true are identical with the conditions under which the other is true.

An analogous formulation may be introduced for «not mean the same». The term «identical with» is replaced with «different from».

The extensive literature on criteria of meaningfulness and related issues contains material for precization and elaboration of (1) in several directions. The literature also offers valuable material for estimation of difficulties, theoretical and practical, that confront those who accept concepts related to (1) as a basis for normative or descriptive definitions of sameness of meaning. This is not the place to discuss that literature.

Let us consider the following possibility of a normative definition:

(2) «The sentence «a» for P_1 in S_1 means the same as the sentence «b» for P_1 in S_1 » means the same as «There is no set of conditions under which P_1 in S_1 would hold «a» to be true and not «b», or hold «b» to be true and not «a»».

Heteronymy might be introduced by a formulation like (2), except that instead of «there is no set» one would write «there is at least one set».

In philosophic and other debates in which (1), modified in the direction of (2) or in other directions, has been used to clarify meanings, it has been customary to ask people (believed somehow to be competent, for example, members of the Vienna Circle) whether expressions «a» and «b» fulfill the definiens requirement. In the case of a positive answer, one has considered it established that for the persons asked, «a» and «b», as occurring in S_1 (or in general), mean the same.

Accordingly, the following reformulation of the definiens of (2) might furnish the basis for a synonymy concept:

«Confronted with the question «Is there a set of conditions under which you, P , in S_1 would hold «a» to be true and not «b», or hold «b» to be true and not «a»?», P answers negatively.»

In relation to some important classes of sentences, such as predictions and complicated theories in the physical sciences, many people have difficulty applying the term «true». They seem to have no settled habits covering the use or interpretation of the term «true» outside certain subject matters, let us call them «matters of fact». Even in relation to such matters, there are difficulties of interpretation. To accommodate people having these difficulties, we have used the term «accept as tenable» or the shorter «accept». It is our feeling that thus modified the question furnishes a fruitful concept in many discussions concerning meaning. It seems at least to have considerable pedagogical value.

In practice—for example, in the philosophical seminar of Moritz Schlick in Vienna—truth-condition concepts were used as if based on a questionnaire. As an important step in the logical clarification of sentences used in a discussion, the users were asked to compare truth conditions of two sentences. If the users answered by reporting the same conditions for the two sentences, this was taken to mean that the sentences for those users

VII. INTRODUCTION OF A GROUP OF CONCEPTS

meant the same. Let us by the term «truth-condition questionnaires» refer roughly to such procedures of questioning.

Many versions of such questionnaires have been tried out. Here is one of them:

Qs5. No. ---.

Texts:

(1) ---.

(2) ---.

From these texts it is seen that they are different only insofar as one sentence in (1), let us call it T, is replaced by another one in (2), let us call it U₁.

Question 1:

Can you imagine circumstances (conditions, situations) in or by which you would accept T and reject U₁, or vice versa? Or, would you either accept both or reject both under every conceivable situation?

In the questionnaires of type Qs5 that so far have been used, further questions were added. They differed from question 1 only in that new formulations, U₂, U₃, . . . , were introduced, one in each new question.

Taking the answer that either both or neither of the formulations T and U₁ must be accepted as direct instances of confirmation of synonymy, we arrive at a concept, let us call it «Qs5A-synonymy». If the requirement is added that the respondents should have interpreted the questions as intended by the analyst, a concept 'Qs5B-synonymy' is introduced, corresponding to the concepts 'Qs1B-synonymy', 'Qs2B-synonymy', and so forth.

Another version of truth-condition questionnaires makes use of the expression «accept as true» instead of simply «accept».

A set of versions rather different from Qs5 has the name «Qs4 questionnaires». Here is one that has been used, with results reported in the next chapter:

Qs4. No. ---.

Text: ---.

Instruction: This text was presented to you as an example of a text containing the formulation «---» (T).

What I should like to know is the following:

- 1a. Do you consider it a necessary criterion of the truth of T, that «---» is true?

- 1b. Do you consider it a sufficient criterion?
- 2a. ---.

Questions 2 and 3 only introduce new comparisons, corresponding to U_1, U_2, \dots , in Qs5.

Some respondents were unfamiliar with the expressions «necessary» and «sufficient» criterion, and an explanatory note was added. While this note settled certain uncertainties, it also created fresh ones.

In questionnaire Qs5 the respondent is invited to use his imagination. It happens that the imagination is not used in such a way as would seem fruitful for the clarification of verbal habits. After studying controversies in which certain formulations, T and U, play an important role, the analyst may be in the position to help the respondent in the use of his imagination. He may present the respondent with a list of formulations representing conditions likely to be conceived to be relevant to T and U, and ask the respondent, for each condition, whether he, assuming the condition to be realized, would accept both T and U as true or reject them as false, or make a distinction between them. Such a questionnaire (Qs6) is of value before Qs5 is applied.

Here is a version of Qs6.

Qs6. No. ---.

[identical to Qs5 up to question 1; then:]

Consider the list, L, of formulations. Please answer, in relation to each member of the list, the following questions.

- 1a. Assuming this sentence, as interpreted by you, to be true, would you accept T as true?
- 1b. Or, as false?
- 1c. Assuming the sentence, as interpreted by you, to be true, «accept as true» is substituted by «reject as false».
- 2b. . . .

Questions 3a, 3b, 4a, and 4b are worded correspondingly, except that «accept as true» is replaced with «reject as false».

A concept 'Qs6LA-synonymy' may be introduced by taking identical answers to questions 1a, 2a, 3a, 4a and questions 1b, 2b, 3b, 4b as direct confirmation of synonymy of T and U for P in relation to the particular list L.

VII. INTRODUCTION OF A GROUP OF CONCEPTS

A more interesting concept may be introduced, which requires that T and U are synonymous, provided that no matter what list is presented to P, the answers would be as indicated above.

VII.8. Truth-Condition Concepts, Verification, and Certainty

When respondents read questionnaires Qs1, Qs2, and Qs3, the phrase «express the same assertion» absorbed much of their attention. They often felt justified in asking for explanations or precizations. In this situation it was tempting to resort to an explanatory note introducing the truth-condition criteria, but in the long run it was preferred to let Qs1, Qs2, and Qs3 function as independent questionnaires.

In the preceding section we gave some suggestions about the difficulties of application that make themselves felt when truth-condition criteria are adopted. Here we shall mention a difficulty of some philosophical interest.

It seems that many people, when invited to imagine circumstances under which they would consider T to be true, try to imagine circumstances under which they would consider T ultimately or definitively verified—in some senses of these difficult terms. Among such persons there are differences of opinion as to the existence of circumstances under which it would be justified to consider T ultimately verified. These differences of opinion, which play such a prominent role in philosophical debate, make themselves felt even among high school students.

These interpretations and opinions introduce difficulties for analysts in understanding and comparing the answers to truth-condition questionnaires.

Some respondents who try to imagine circumstances of ultimate verification of T seem to ask themselves whether these conditions are such that they represent ultimate falsification of U. The answer is naturally negative for nearly any pair of sentences, T and U, likely to be compared. Or, the circumstances of ultimate verification of T are compared with circumstances of not ultimate verification of U. This makes a negative answer less likely. The difference in tendency to answer negatively in the two cases affects the results of the truth-condition questionnaires.

Those who look for conditions of ultimate verification in some senses of that expression also seem to look for conditions of absolute or perfect cer-

tainty—in some senses of those terms. Thus, the highly important phrase «identity of conditions of truth» may be said to be sometimes interpreted in directions indicated by the expressions «identity of conditions of ultimate verification» and «identity of conditions of absolute certainty».

It may be asked, Do not the respondents interpret «T is true» in such a way that it means the same as «T»?⁹ To this, one might answer, Means the same as what? Somehow, the respondents would not tend to identify «T is true» with «T» without the explicit or implicit assumption that T when it occurs alone is asserted in some sense of this highly important word.

One might accordingly adopt the following version of the truth-condition questionnaire: «Can you imagine conditions under which you would assert T and not U, or vice versa?»

Such a wording works well to a degree, but the attention is focused on what might be meant by «assert». That term admits various interpretations, and respondents are led into the difficult question of differences between justifiable and nonjustifiable assertions. From there, the questions of verification and certainty are reached. Thus, the version using the term «assert» does not solve many of the difficulties of the other versions.

Several difficulties center on the expression «conceivable» or «imaginable» conditions.

If two sentences are declared synonymous for a person provided he cannot imagine this or that, one may ask how we can separate tests of imagination from tests of sameness of meaning. It might turn out that we find a high positive correlation between resources of imagination and a tendency to find heteronymities. If we, on the other hand, declare two sentences to be synonymous for a person provided there are («in reality») no noncontradictory conditions under which that person would accept the one as true and the other as false, there is need for an additional declaration in order to make a concept applicable: What is meant by «there are no conditions such that ---»? Who is going to judge? What do we know about another person's reactions under any conceivable conditions?

One may give good answers to these questions, but they are likely to involve complexities that we find justifiable not to enter into here.

The synonymity questions of Qs1, Qs2, and Qs3 are open to even more ambiguities than the truth-condition questions. The latter represent an important step in the direction of definite concepts.

VII. INTRODUCTION OF A GROUP OF CONCEPTS

VII.9. Cognitive-Weight-Condition Concepts of Synonymy

Instead of asking a person to imagine conditions under which he would accept a sentence, T , as true, one may write a list of attributes and ask the same question in relation to each item of the list. One may, for example, include the expressions «true», «highly probable», «strongly confirmed», «proved», «perfectly certain», «false», «highly improbable», «strongly disconfirmed», «disproved», and «perfectly uncertain».

Because the items on such lists, as we have used them so far, have certain vague characteristics in common, we have labeled the items «cognitive-weight expressions». We shall not here try to justify such a name. What seems important is that respondents who answer questions about truth or certainty tend to use those expressions in their arguments for or against an opinion and in reformulations of the questions about truth or certainty. By asking them to respond to cognitive-weight-list questionnaires, we obtain important information about attitudes toward the crucial sentences T and U . The truth-condition questionnaires can be conceived as cognitive-weight-condition questionnaires with only one item on the cognitive-weight list.

Just as in the case of the truth-condition questionnaires, a terminology may be introduced, according to which there is synonymy if the cognitive weight of the one sentence is always the same as that of the other, whatever the conditions imagined. Thus, we may form normative definitions of the following kind:

« T and U mean the same for P in S » shall mean the same as « P in S cannot imagine any conditions under which, for the list L , he would attribute a cognitive weight, W_i , to one of the formulations, but not to the other, and at least one of the weights is attributed to one of the formulations».

VII.10. Argumentational Synonymy

The comparison of truth conditions in relation to two sentences may be regarded as part of a much broader comparison, that of argumentational status. Two sentences will be said to have the same «argumentational status» in reference to a group of sentences if it holds good, for each member T_i of that group, that each member is a pro-argument, or a contra-argument, or irrele-

vant in relation to T_i . «Sameness of cognitive meaning» might then be introduced as another name for sameness of argumentational status. Questionnaires based on this vaguely formulated idea are impossible to answer without previous training in *pro et contra dicere*. Even when such training has been given, the questionnaires are difficult to answer. Here is one version:

Qs7. No. ---.

Imagine that you have found two texts, and that you know the author of the one has had no knowledge of the other author or of his text.

Text 1: --- T ---.

Text 2: --- U ---.

We are interested in just how you interpret T and U.

Questions:

Do you interpret T and U in such a way that

1. any argument you would consider to be a pro-argument in relation to T, you would also consider to be a pro-argument in relation to U?
2. If your answer to question 1 is positive, would you consider the strength of each pro-argument in relation to T equal to the strength of that argument in relation to U?
3. [similar to question 1 but concerning contra-arguments]
4. [similar to question 2 but concerning contra-arguments]

Just as in Qs4, we here resort to the respondent's imagination in a rather sweeping way: he is required to imagine arguments for or against T and U. The imagination may be helped by previous answers to Qs8, in which a list of possible arguments, prepared by the analyst, is handed over to the respondent. The list corresponds to the reference lists introduced in investigations of preciseness relations.

Qs8. No. ---.

[identical to Qs7 up to *Questions*, then:]

(A list, L, is handed to the respondent.)

Consider the list, L, containing formulations that possibly would, to you, express arguments for or against T, or for or against U, as you have interpreted T and U. For each item on the list L, we ask you to answer the following questions:

- 1a. Do you consider it, if established, as an argument pro T?
- 1b. Do you consider it, if established, as an argument pro U?
2. If you have answered positively to questions 1a and 1b, would you consider the strength of the pro-argument in relation to T equal to the strength of that argument in relation to U?

VII. INTRODUCTION OF A GROUP OF CONCEPTS

Questions 3a, 3b, and 4 correspond to questions 1a, 1b, and 2, except that they concern contra-arguments.

If answers to 1a, 2a, 3a, and 4a are the same as answers to 1b, 2b, 3b, and 4b, we shall say that for P in S (delimited in relation to the texts), relative to the argumentational reference list L, T and U «have the same argumentational status», or «are Qs8A-synonymous».

VII.11. Løvestad's Questionnaire

Ludvig Løvestad (1945) attempted to construct a strong precization of the expression «the physical law L_1 at the time t_1 was (or is) more testable (or: had a greater or more perfect testability) than the physical law L_2 at time t_2 ». On the basis of the strong precization, he constructed a quantitative measure of testability. This may be viewed as an explication of the expression «more testable than».

To find out to what extent the use of «more testable than» among physicists would correspond to the use of that expression in conformity with his strong precization and his explication, Løvestad constructed a questionnaire of the argumentational kind. He grouped a series of sentences into three classes: first, sentences that, as interpreted by him and if considered to be tenable, would constitute pro-arguments in relation to the sentence «The law of Boyle-Mariotte is more testable now than at the time it was first formulated», this sentence being interpreted in conformity with the precization constructed; second, sentences that would constitute contra-arguments; and third, sentences considered by Løvestad to be irrelevant.

A questionnaire was constructed in which twelve sentences belonging to these classes were listed. Here are the first three:

1. At that time, as well as now, k is conceived as a constant and p and v as the only variables in the law $p v = k$.¹⁰
2. One can today produce greater pressure and volume than at the time of Mariotte, and therefore one can test them over a greater field.
3. Although one could not at the time of Mariotte produce pressures and volumes as great as now, one could at that time, as now, suppose the numerical value of pressure and volume to vary from zero to a value of unlimited greatness, and thus one could at that time suppose the same field of application as now ---.¹¹ (Løvestad 1945: 66ff.; my translation)

Undergraduate, graduate, and postgraduate students were presented with these sentences and invited to answer the following question:

You are going to compare the testability (possibilities of testing) of the law of Boyle-Mariotte, $pV = k$, at the time it was formulated, and the testability today. You are requested to answer in relation to every assertion below, whether you think it can be taken as an argument for or an argument against regarding the law as more testable now than then. (Ibid.)

The interesting results of Løvestad's inquiry cannot be reviewed here. His questionnaire belongs to a kind that has been used for many purposes. It might be conceived as an example of the following skeletal form:

Qs9. No. ---.

Text 1: --- T ---.

Text 2: --- U ---.

The sole difference between these texts consists in the fact that in the second text, U is found at the place in which T is found in the first text.

In the following there is a list of sentences. For each sentence V_1 on this list we ask:

- a1. Does it, as interpreted by you, express an assertion that, if it were tenable, would constitute a pro-argument in relation to T, as you interpret T?
- a2. Does it, as interpreted by you, express an assertion that, if it were tenable, would constitute a pro-argument in relation to U, as you interpret U?
- b1. {like question a1, but substituting «contra-argument» for «pro-argument»}
- b2. {like question a2, with same substitution}
- c1. {like question a1, but substituting «an irrelevant assertion» for pro-argument»}
- c2. {like question a2, with same substitution}

Løvestad's questionnaire does not correspond exactly to this questionnaire because he considered his own precization of «more testable than» in the sentence about the Boyle-Mariotte law to be too complicated to be understood by respondents not proficient in methodology and symbolic logic. Consequently, he had to compare his own answers to a questionnaire of the kind Qs9 with the other respondent's answer to a questionnaire in which

VII. INTRODUCTION OF A GROUP OF CONCEPTS

only one text was offered, containing only the simple expression «more testable than» in the crucial sentence T.

The codification of the results of a questionnaire such as Qs9 is rather complicated. Among other things, one has to consider the following factors:

1. Differences in interpretation of the argument formulations among respondents, and between respondents and the analyst.
2. Differences in the auxiliary hypotheses needed to construct inference links between an argument and the crucial sentences. (Even if the crucial sentences T and U and an argument formulation V_1 are interpreted in the same way by two persons, there are plenty of reasons that their assessment of the argumentational relation between V_1 and T and U might differ.)
3. Differences in results based on one class of argument formulations and results based on a second reference class, the crucial formulations being the same. (Such differences justify a rather skeptical attitude toward attempts to generalize about the relation between T and U on the basis of a single questionnaire.)

VII.12. Recapitulation

In the foregoing sections, a number of ways of asking people about the relations between interpretations of expressions have been described. They have, in part, emerged as a product of discussions that have taken a similar course: they have developed into discussions about cognitive meanings of certain phrases, and it having been found unnecessary for the purposes of discussion to speak about cognitive meanings in general, the discussions have revolved around classifications of sameness of meaning. The participants in these discussions have been scientists, logicians, and philosophers.

Efforts to standardize certain important features of such discussions have led to the construction of questionnaires, samples of which have been introduced in a systematic way in the foregoing. Some are extremely simple and, for the purposes of studying usage, extremely naive. Nevertheless, at least among certain persons considered highly competent, the direct question

«Does «a» in your terminology mean the same as «b»?» is useful, and answers may continue to be relied on as symptomatic of existing usages. One may in discussions with those persons interchange occurrences of «a» with occurrences of «b» without disturbance in the argumentational system.

Other questionnaires are more sophisticated and more adapted to concepts of synonymy likely to be proposed by students of language. They are, on the other hand, extremely complicated to administer. The complexity will, in practice, have the effect that even if the information they yield is considered important, they will rarely be carried out as proposed in this chapter.

This does not mean, however, that they are unfruitful as a basis for the introduction of concepts or tests of synonymy. A highly technical, laborious spectrographical method of testing the assertion «In this container there is iron and only iron» may be used for the introduction of a fruitful concept of iron, even if those using the concept very seldom resort to the laborious techniques of subsumption. The standard techniques delimit the *claims* of those who speak about iron and use the concept. Only now and then, but in highly important situations from the point of view of research, is the laborious, complete test performed. Nevertheless, the whole conceptual structure of the sciences in question is dependent on the existence of such tests as a kind of supreme court in matters of terminology.

Thus, in cases of major disagreement among those who make hypotheses about sameness of meaning, the more complicated concepts proposed in the foregoing furnish tests that the analysts who disagree can accept as a basis of decision.

By interpreting synonymy sentences—in the terminology of chapter 1—in terms of the questionnaire concept ‘Qsxy-synonymy’, we relate a set of assertions to each sentence. On the basis of knowledge about the authors of such sentences, we venture to assert that their intended meanings are quite similar to those created by using certain Qsxy-concepts. The vast majority of synonymy sentences are, however, produced by authors who have hardly intended anything very similar to the questionnaire concepts. Such concepts may not be reached even by transintentional precization of the synonymy sentences. The Qsxy-synonymy concepts are, rather, explications (in the terminology of chapter 2).

If existing synonymy sentences are interpreted *as if* they were meant

VII. INTRODUCTION OF A GROUP OF CONCEPTS

to express assertions about Qsxy-synonymity of some kind, hypotheses are framed that are of interest and are testable.

Of greater import, however, is the aim of creating a suitable terminology for *future* use. The synonymity concepts introduced are thought to be of use in such future investigations. They are considered to represent fruitful classifications of phenomena. If a synonymity relation in the sense of one of the concepts is found, this should be a fairly reliable symptom of many other relations that contribute to our understanding of terminological and, indirectly, nonterminological phenomena. One field of phenomena is that of controversies in general and various specific kinds of disagreements (cf. chapter 3). In a discussion—learned or popular—knowledge about how the participants would answer the questionnaires greatly increases our information relevant to hypotheses about the extent and kinds of disagreement. Such knowledge renders it possible to make better predictions about the future course of the discussion and to explain better the development of the discussion in the past.

There are many obvious limitations to the applicability of the questionnaires. The questionnaire respondents must be willing to answer, and to answer honestly. Even if willing to do so, they may be more or less incapable of carrying out the task. Further, it seems rather difficult to formulate synonymity questions that are understandable and precise.

The questionnaires have not, however, been introduced in anticipation of unlimited applicability. They have been introduced because they are considered sufficiently useful at the present stage of research to be tried out.

B. Concepts of Interpersonal Synonymity

VII.13. Interpersonal Synonymity Hypotheses Based on Information About Intrapersonal Synonymity

All the introduced synonymity tests or concepts refer to usage by a single person. The standard sentence used in the reports based on the questionnaires is ««a» and «b» are Qsx-synonymous for *P* in *S*».

If we try to use the reports as evidence of opinions held by the respondent concerning the questions intended by the analyst, interpersonal syn-

onymity is involved. Thus, the statement that for P «a» and «b» are QsxB-synonymous involves hypotheses that the respondent interprets (or does not interpret) the synonymity question as the analyst wishes it to be interpreted. In practice, such hypotheses have been submitted to testing by extensive interviewing of the respondents. In certain cases it is thought that one can, with a high degree of certainty, establish that the respondents did not interpret the questionnaire as did the analyst. On the other hand, it is difficult to establish with a high degree of certainty that a respondent did interpret it as intended by the analyst. There is need for systematic procedures by which assertions about interpersonal synonymity can be connected with research, and not merely with guesses and intuitions.

Let us consider the formulation ««a» for p in s is synonymous with «a» for q in s». Small letters, p, q, for persons are used because of the formulas and the number of repetitions required in this and the following sections.

In symbols:

$$\text{Syn}(a\ p\ s, a\ q\ s) \text{ or } \neg\text{Het}(a\ p\ s, a\ q\ s)$$

As regards s, we postulate that a text is present to p and q, and that «a» is a part of the text.

If we can construct a satisfactory concept, or a class of such concepts, adapted to the above symbolized assertion, it is relatively easy to proceed to the more complex general case:

$$\text{Syn}(a_1\ P_1\ s_1, a_2\ P_2\ s_2)$$

In this chapter we can only introduce certain concepts and show their close relation to previously introduced ones. We shall add some words of motivation; but we cannot here confirm the fruitfulness of the introduced concepts. That would require description of applications to concrete cases, a task demanding considerable space. In dealing with applications, we shall come back to the question of fruitfulness.

Roughly speaking, the concepts of interpersonal synonymity to be introduced will be closely adapted to one of the usual ways in which we, in scientific discourse, try to make others understand what we mean by a sentence. Probably we find out what we ourselves mean by a sentence in a sim-

VII. INTRODUCTION OF A GROUP OF CONCEPTS

ilar way, only we condense our questions to ourselves in such a way that they are scarcely, if at all, articulated. The answers are likewise in a contracted form, as when people speak to themselves.

There is, as previously mentioned, no reason to believe that we have any methods for discovering our own usage other than those we use when investigating usage by others. We have, however, a much more extended and reliable knowledge of our own speech habits than we do of other people's habits—at least we are apt to believe so.

To find out one's own usage, it is convenient to treat oneself as another person. This has been done in psychology, for example, by Ebbinghaus. It is possible to extend the following account of interpersonal synonymy to intrapersonal synonymy, taking intrapersonal relations as a unique special case of interpersonal relations.

Suppose the text is the introductory treatise on theoretical mechanics by A. E. H. Love (1897), and that the formulation, «a», to be discussed is «Every body, and every individual part of a body, has a constant mass, and the mass of the body is the sum of the masses of its parts». Let us suppose that two readers, p and q, are physicists, and that they, upon reading the formulation «a» within the time interval t, agree to make an attempt to find out whether, or to what degree, they understood «a» in the same way within the time interval t. We suppose that during t they established a hypothesis of interpretation. Explicitly or implicitly, we suppose that they thought they understood what Love intended by the formulation «a».¹²

One of the ways in which p and q tend to explore each other's interpretations consists in their expressing what they understood by «a» in other words. They reformulate «a» and say, «I understood b by «a». Did you do that, or did you interpret «a» otherwise?» In «b», they have, for example, replaced the word «mass» with some definiens of «mass» (or more correctly formulated, «with a definiens expression in some normative definition of «mass»»). Then, they might replace the definiens of the definition of «mass» with an expression in which some terms of the definiens are replaced with some definientia of definitions of those terms. Thus, they might discuss how they interpret Love's introduction of 'mass': If we associate the number 1 with any particular material body A, then we can associate a definite positive number m with any other material body B, this number is the mass-ratio of the two bodies A and B. We call it «the mass of B»

(Love 1897: 87). When they use this text to construct a definiens formulation of «mass», their interpretation of the formulation will depend very much on their interpretation of the expressions «mass-ratio» and «material body». Both are explicitly defined by Love, and the investigation of interpretations of «a» naturally leads to the definiens formulations of those expressions, and so forth.

Maybe p would have understood by «b» the same as he understood by «a», within t, if the text had contained a strong popularization of «a». If p says to q that he by «a» understands the same as by «b», and q answers that he does not, this difference may more naturally be attributed to ambiguities of the popularization than to different interpretations of «a». Thus, in replacing «a» with other formulations, p and q ought not to replace it with just any synonymous formulations, arbitrarily selected—but which synonymities should be selected is the great question. In general, we may say that p and q should try to substitute for «a» sentences that there is no reason to believe are understood by p and q in still more different ways than is «a» itself. Further, the substituted formulations ought to be apt to disclose possible differences of interpretation of «a». In other words, a partial synonym «b» ought to be more (interpersonally) precise than «a» within the group of persons p and q and in the situation at hand. Let us suppose that p reflects, «How can «a» be interpreted otherwise than I did? I now see that there is a difference that might be relevant, but how shall I be able to tell q about this difference of interpretation I now conceive as possible? Perhaps I can do so by formulating «a» in the following way: I will ask if q by «a» means b and not c, or c and not b. This might prove helpful because «b» and «c» are very explicit in turning the attention to the difference d, and I have no particular reason to suspect that «b» and «c» are interpreted by q in such a way as to extinguish the difference d from his view». This last reflection is of great importance to the transition from intrapersonal to interpersonal preciseness.

Briefly, p ought to select precisizations of «a» that are apt to disclose possible differences in interpretation of «a», in that they permit only some of the interpretations that «a» permits. Asking q whether he thinks «a» is synonymous with these formulations, p may hope that in the case of q's answering positively in relation to a formulation «b» and negatively to a formulation «c», *the difference in meaning between these two formulations will be*

VII. INTRODUCTION OF A GROUP OF CONCEPTS

approximately the same for q as for p. He cannot be sure of this approximate identity, but he may from general considerations of the similarity of their education and training, or other similarities, have reason to suppose that «b» and «c» are able to disclose the difference intended by p, or one closely similar.

This procedure of reformulation does not lead to anything else than the establishment of *two maps of synonymy and heteronymy relations*, one map showing relations within the usage of p, and the other showing relations within the usage of q.

((31)) If there is a one-to-one correspondence of points on two intrapersonal synonymy maps, and the points are selected with due consideration of relations of preciseness and ambiguity *within each map*, we shall say that there is *maximum confirmation of interpersonal synonymy* of «a» in relation to p and q in s, and in relation to the reference class of formulations defined by the maps, that is, by the reformulations used.

When we compare two maximum confirmations, the one in relation to a reference class that is part of the other class, that confirmation will by definition be called the stronger that is maximal in relation to the most comprehensive reference class most comprehensively tested.

Strictly speaking, we ought not to say that by the foregoing definition, the formulation «Syn(a p s, a q s) holds good in relation to R, where R is the total reference class used» is operationally defined. We ought primarily to announce the operational character of the formulation «Syn(a p s, a q s) is maximally confirmed in relation to R».

The difference is of considerable interest, being associated with the general problem of semantical relations between «/-a» and «/-a has the positive cognitive weight of the class W», where «/-» is a sign of asserting, and W is a class of weight expressions obtained by studying use of the term «assert».

We do think it justifiable to use the first formulation as synonymous with the latter, but we acknowledge that in other fields of discussion, it is fruitful to make a distinction between them.

The introduced concept of interpersonal synonymy may be said to be equivalent to a concept of identical structure of intrapersonal synonymy

and heteronymity relations within a system of formulations making up highly qualified reference classes of the formulation investigated. This is, vaguely speaking, in agreement with tendencies to define intersubjective characteristics of scientific knowledge by means of identity of structure of systems.

VII.14. Systematic Exposition of a Procedure

The procedure to be described may be subjected to variation and may be carried out with various degrees of elaborateness. Some of the variations owing to differences of order and elaborateness are important enough to justify talking about different concepts. We shall here describe only one possibility without claiming that the details may not with profit be modified extensively.

The successive steps in the procedure are labeled A, B, C, etc., to make a survey easier.

A. *Preliminary Lists of Interpretations*

The person *p* makes a preliminary list of interpretations of «*a*». The list consists of statements, about each of which he guesses or infers from previous investigations that it expresses an assertion *q* could possibly find expressed by «*a*» in *s*.

The list, let us call it the «preliminary list of interpretations according to *p*», must be a heteronymous class according to *p*'s usage; no member must be such that any other member is a synonymic alternative of it for *p* in *s* (see chapter I, section 10).

An analogous list is made by *q*.

B. *Ordinary, First-Order Reference Class*

If «*b*» is a member of the preliminary *p*-list, this means that in *the way p interprets* «*b*», «*b*» expresses an assertion that *p* guesses *q* might find expressed by «*a*». Even if this should be the case, however, it is not certain that «*b*», as interpreted by *q*, expresses that assertion. That is, nothing guarantees that «*b*» for *p* in *s* is interpersonally synonymous with «*b*» for *q* in *s*.

If *p* has reason to believe, or guesses, that «*c*» would express to *q* what «*b*» expresses to *p*, he should substitute «*c*» for «*b*» in the *p*-list.

VII. INTRODUCTION OF A GROUP OF CONCEPTS

Similar changes ought to be made in q's preliminary list.

The resulting lists are then adapted to the other person in two ways:

1. Only such formulations are included that one of the persons guesses the other person might find to be synonymous with «a».
2. The formulations selected are reformulated if one of the persons has gathered evidence showing that what is to him expressed by the formulation adopted in the list is less likely to be thus interpreted than a certain other formulation. The latter is in that case included in the list, and the former is dropped.

Let us call the corrected lists (or the preliminary lists if it is found that no formulation ought to be changed on the basis of existing evidence) «the ordinary (first-order) p-class and q-class of reference».

C. Hypotheses of Interpersonal Synonymy, Defined on the Basis of Synonymy Agreements in Relation to the Ordinary, First-Order Reference Class

In relation to each member of the first-order p-class, q is presented with a synonymy questionnaire or a battery of such questionnaires. It is immaterial here which Qsx-concepts are used. For the sake of simplicity, let us suppose that QsI is used. Accordingly, q is simply asked whether «a» in s is for him (intrapersonally) synonymous with the list member at issue.

If the members of the reference class consisting of the p- and the q-class are called $a, \dots, a_1, \dots, a_n$, it is, by use of QsI, established which of the following four relations hold good.

- (1) $\text{Syn}(a a_i p s) \ \& \ \text{Syn}(a a_i q s)$
- (2) $\neg \text{Syn}(a a_i p s) \ \& \ \neg \text{Syn}(a a_i q s)$

«Syn» is in the formulas an abbreviation for «SynQsIA».

A case of (1) or (2) is called a synonymy agreement between p and q and is counted as a confirmatory instance of $\text{Syn}(a p s, a q s)$.

Each case of synonymy disagreement

- (3) $\text{Syn}(a a_i p s) \ \& \ \neg \text{Syn}(a a_i q s)$
- (4) $\neg \text{Syn}(a a_i p s) \ \& \ \text{Syn}(a a_i q s)$

is counted as a disconfirmatory instance of $\text{Syn}(a \text{ p } s, a \text{ q } s)$.

Suppose there are N agreements and M disagreements. The fraction

$$((32)) \quad \frac{N}{N + M}$$

will be taken as a measure of the degree to which $\text{Syn}(a \text{ p } s, a \text{ q } s)$ is confirmed in relation to the reference class R . If the respondents p and q give unqualified positive or negative answers to the Q_{s1} questionnaire, we shall have $N + M = n$.

If there is no synonymy disagreement between p and q in s as regards « a » in relation to R , we shall say that the hypothesis of interpersonal synonymy of « a » for p in s and « a » for q in s is confirmed with maximal strength in relation to the first-order reference class R . In that case we have

$$\frac{N}{N + M} = 1$$

Note 1: for the sake of simplicity we shall in the following assume that respondents always give unqualified answers. As a matter of fact, there tend to be a significant number of nonstraight answers, which complicates quantitative treatment.

Note 2: We do not do so here, but it might be fruitful to make an additional reference class of formulations not fulfilling the definitional characteristics of the p - and q -lists. The formulations in that list would, in other words, be such that each person thinks it not practically possible that the other person would interpret « a » as synonymous with it. However, p and q may «think» erroneously.

The value of the p - and q -lists as reference classes depends on whether the list members have small internal distances of meaning. If they are not synonymous for p or q in s , they should not be very far from each other in meaning. These assumptions are made on the basis of similarities among the semantical systems of people within the same language community, and similarity (however slight) between the use of one and the same formulation in different situations.

The advantage of relatively close relations of meaning within the reference class may also be based on the fact that comparatively small differences

VII. INTRODUCTION OF A GROUP OF CONCEPTS

between what p intends and what q intends by «a» in s would be more easily discovered, if they exist.

There might, however, be formulations outside any p- or q-list that would give us valuable hints; therefore, a broader list should occasionally be used as a check.

VII.15. Interlude

I can now imagine an impatient reader saying:

I recognize the value of schematical descriptions of concrete procedures. They connect the beautiful but airy castles of free thought with the dirt and sweat of earth. Do you really think, though, that you correctly grasped the nature of interpersonal synonymity in the last section?

Let us suppose you used the procedure described in the last section and that you got nonmaximal confirmation. It is not possible that you would nevertheless exclaim: This is just a matter of intricate terminology. I am sure the other person interpreted «a» just as I did. Or, after a maximal confirmation: This is very misleading. I am sure that he did not interpret «a» just as I did, despite these results!

We have a kind of intuitive knowledge of what is meant by saying that two persons mean the same by a sentence. «Synonymity» has an intuitive sense, just as «simultaneity» has. When you select your technical concepts, you use intuition as a guide. However, they are apt to make inessentials appear essential. External and arbitrary matters dominate the description of procedure.

Why not simply say that the procedures described, if certain results are obtained, strengthen the reasons for believing that interpersonal synonymity really exists between p and q as regards «a»? By defining synonymity by means of exhaustive procedures, you miss the thing itself, at least its most important aspects, namely, the properties intuitively known but not formulated.

I can only answer my impatient reader as follows: You do not seem to have had the depressing experience of obtaining pseudoagreements and pseudodisagreements caused by misleading intuitive hunches regarding distinctions of meaning. If you are not seriously convinced of the basic shortcomings of our intuitive use of language, for at least some purposes that you are deeply interested in, there can be no motive for you to continue reading this work. Intuitively, we may associate very many things of interest with terms such as «simultaneity», «intelligence», and «synonymity»,

but even if we associated the same things, so that an interpersonal relation was established, it cannot be the aim of concept formation somehow to cover all those associations in one concept.

The feeling that we, as we say, «know what we mean» and what others mean does not rule out the possibility that two minutes later we shall have to confess ourselves unable to find out even intuitively what we «knew» two minutes ago. It does not rule out grave deficiency of depth of intention. Let us take a famous example, that of the word «simultaneous». I have a very convincing feeling of what it means that two events are simultaneous: it means they happen at the same time. Moreover, I have the feeling I can «see» what is meant by that. Nevertheless, there are fields of discussion of considerable interest to some people in which «simultaneous» is defined by intricate procedures involving velocities of bodies and many other properties. These are inessential or even irrelevant to my intuition of the meaning of «simultaneity». The procedures leave out what may seem to be the very simple thing itself, the being at the same time. As a matter of fact, though, in every science, in every description that aims at a certain degree of accuracy and intersubjectivity, there goes on a continual process of emancipation from intuitive hunches insofar—*but only insofar*—as they have proved to be misleading. Complete emancipation would lead to nonsense. Probably no one acquainted with discussions on «the» meaning of «meaning», on the meaning of certain texts, and on a host of other questions involving communication, would deny that *conflicting* intuitions are appealed to by different persons, and that the intuitive answers often are answers based on no reflection, no critical scrutiny of the issues involved.

If I felt certain that somebody used «a» in the same sense as myself in spite of a strong disconfirmation arrived at by the procedures described, I would not trust the feeling without certain reservations. Its appearance would be a symptom that there are ways of using the expression «interpersonal synonymity» that would, if they were made precise, lead to other concepts than the one introduced here. Maybe some of them would be rather fruitful concepts. The feeling would constitute a valuable motive for improving the introduced concepts, or at least for changing the names of the concepts so that they would not give misleading associations.

If the procedures were not used to define concepts but to establish symptoms that certain relations fall under a concept intuitively known,

VII. INTRODUCTION OF A GROUP OF CONCEPTS

this would lead to perplexities as soon as somebody said, « Your operation gives less reliable symptoms than mine» or «Your operations do not really furnish symptoms of interpersonal synonymity, but only of something similar». Who is to determine just what *is* interpersonal synonymity as intuitively known? There is nothing *definite* to be found. Compare the discussions about whether this or that concept of intelligence measures so-called «real intelligence» or only furnishes symptoms of it, or even symptoms of something alien to real intelligence.

The discussion might be fruitful if the word «intelligence» as used in everyday life were precized in different directions so that one could say, for example, «The concept P45 of some psychologists is very similar to the concept Q48 arrived by the precizing «intelligence» in direction number 7, whereas the concept P49 is not. There is a very high correlation between people subsumable under concept Q53 and those falling under P59». On the basis of such findings, some concepts would probably no longer be named «intelligence», because this would be misleading for people who are not apt to use definitions but prefer to rely on associations connected with the conceptual designation, however misleading.

What is more embarrassing than lack of correspondence with previous vague and ambiguous usage is the vast number of different concepts, all of which seem to be nearly equal as regards fruitfulness for the same purposes. How are we to decide which ones to use as a conceptual basis? In physics it has been possible to work out a very small number of concepts that suffice to formulate in a few words a great many laws and correlations. As we approach the more complex finds of investigation—for example, economics, social psychology, language behavior—there seems to be no hope of systematizing large masses of knowledge on the basis of a few simple concepts. This may lead us to give up attempting to work with relatively precise linguistic tools—we shall then continue to rely on words with such a vast and vague multitude of meanings that they give a superficial impression of being able to bring together very different phenomena into useful classifications (consider «group», «propaganda», «learning», «demand», etc.). The alternative is to try to work with a large number of more or less complex concepts, hoping that someday it will be possible to undertake a reduction in their number and complexity.

I look forward—and not without impatience—to an account of em-

pirical work, which will make it possible to evaluate the fruitfulness of the concepts introduced in this work. Until that happens, there is not much to say for or against the concepts.

With this digression over, we may return to our topic.

VII.16. Systematic Exposition Continued

In the definition of section 14, each intrapersonal synonymy agreement

$$\text{Syn}(a_i p s) \& \text{Syn}(a_i q s) \text{ or } \neg \text{Syn}(a_i p s) \& \neg \text{Syn}(a_i q s)$$

and each synonymy disagreement count equally. They are simply added up as of equal importance.

In our search for more refined procedures, we may begin with certain modifications of the reference class R.

Suppose we find that

$$\neg \text{Syn}(a_i p s) \& \text{Syn}(a_i q s)$$

and suppose that p makes a list of heteronymous interpretations $a_{11}, a_{12}, \dots, a_{1j}, \dots$ of a_1 . Maybe a response by means of the questionnaire QSI shows that

$$(j): \text{Syn}(a_1 a_{1j} p s) \supset \neg \text{Syn}(a_1 a_{1j} q s) \& \neg \text{Syn}(a_1 a_{1j} p s) \supset \text{Syn}(a_1 a_{1j} q s)$$

This means that there is maximal disagreement regarding what is meant by the formulation a_1 of R. In scientific debate this probably would disqualify a_1 as a tool for elucidation of possible differences in p's and q's usage of «a».

Suppose that p, on the basis of the discouraging results reported above, eliminates a_1 and takes up $a_{11}, a_{12}, \dots, a_{1j}, \dots$ instead. Maybe he finds:

$$(j): \text{Syn}(a_1 a_{1j} p s) \supset \neg \text{Syn}(a_1 a_{1j} q s) \& \neg \text{Syn}(a_1 a_{1j} p s) \supset \text{Syn}(a_1 a_{1j} q s)$$

for example, maximal synonymy agreement in relation to the additional reference class.

VII. INTRODUCTION OF A GROUP OF CONCEPTS

In scientific discussion this result would probably be regarded as a much stronger confirmation of interpersonal synonymy than the strength of disconfirmation attributed to the initial result

$$-\text{Syn}(a_i p s) \& \text{Syn}(a_i p s)$$

We propose to construct concepts in accordance with this evaluation, which is implicit in scientific procedures.

Let us call R a «reference class of the first order», that is, a reference class whose members are not themselves made subject of controls involving reference classes.

((33)) The argumentative power of a member a_i of R in a discussion of the strength of confirmation attributable to a synonymy agreement

$$\text{Syn}(a_i p s) \& \text{Syn}(a_i q s) \text{ or } -\text{Syn}(a_i p s) \& -\text{Syn}(a_i q s)$$

or the strength of disconfirmation attributable to a synonymy disagreement

$$\text{Syn}(a_i p s) \& -\text{Syn}(a_i q s)$$

or

$$-\text{Syn}(a_i p s) \& \text{Syn}(a_i q s)$$

depends on the strength of confirmation obtainable as regards the interpersonal synonymy hypothesis

$$\text{Syn}(a_i p s, a_i q s)$$

((34)) Therefore, we propose that the initial hypothesis

$$\text{Syn}(a p s, a q s)$$

is by definition to be regarded as more strongly confirmed than the maximal confirmation obtained by a relation to R if the interpersonal synonymy of at least one member, a_i (of R), is maximally confirmed in relation to a reference class R_i , which is constructed in the same way as R .

((35)) If maximal confirmation of interpersonal synonymy is obtained in relation to all second-order reference classes, we shall

say that the conclusion as regards degree of confirmation of interpersonal synonymy in relation to R is maximally confirmed in relation to a complete system of second-order reference classes.

If, however, the use of second-order reference classes leads to cases of synonymy disagreement, this should be made the basis for changing R.

If the supposed interpersonal synonymy of a member a_i of the first-order reference class is strongly disconfirmed in relation to a second-order reference class R_i , it should be eliminated from R.¹³ Any deviation from

$$\frac{N}{N + M} = 1$$

is a serious matter, but does not necessarily destroy the value of a_i as an indicator.

If every instance of disconfirmation were to result in elimination, we should have to investigate the members of R_i in turn. Any confirmation of interpersonal synonymy of a member a_{ij} of R_i in relation to a third-order reference class ought in that case to be regarded as a justification for eliminating a_{ij} from R_i , which in turn would reestablish R as a workable reference class. Thus, the rigorous rule of eliminating any member of a reference class, provided at least one instance of synonymy disagreement appears, would result in a laborious chain of investigations of higher-order reference classes—a chain so long, perhaps, as to make it practically impossible, and quite unfruitful, to use the procedure described.

If a member a_{ij} of R is eliminated on the basis of strong disconfirmation of its interpersonal synonymy for p and q, the question arises of whether any, or perhaps all, of the corresponding members, a_{ij} , of the second-order reference class R_i should be included in R. If they should, this requires construction of a new reference class R'.

If evidence is available as to why such a member should not be included, it ought not to be included. The formulations a_{ij} are apt to be precisizations or near-precisizations in relation to a_i , and should therefore furnish valuable reference material.

The numerical value $\frac{N}{N + M}$ found in relation to R' may be very different from that found in relation to R. Theoretically, it is possible that it could change from 1 to 0 or from 0 to 1.

VII. INTRODUCTION OF A GROUP OF CONCEPTS

The greater the difference, the more reason there is to continue the process of testing $\text{Syn}(a p s, a q s)$, either by constructing higher-order reference classes or by simply adding members to the already constructed classes on the basis of guesswork or inferences of some sort.

((36)) In comparisons of the different numerical values $\frac{N}{N+M}$ obtained, that one is to be regarded as the most reliable indicator of which value, if any, would be found if the process of testing continued indefinitely, which is based on the most comprehensive classes, and where the test is continued to the highest order of reference classes.

The rule does not apply to the cases most frequently encountered in practice, namely that one test is superior in some respects—for example, in having some very comprehensive reference classes—whereas another test is superior with respect to higher-order classes.

It would be theoretically interesting, but scarcely useful in practice, to define « $\text{Syn}(a p s, a q s)$ » as the relation between $a p q$ and s holding good in the case that $\frac{N}{N+M}$ tends toward 1 with increase in comprehensiveness of reference classes of any order and with increase in the ordinal number of the highest-order class.

Let us use the symbol $/r/$ to represent the number of members of a reference class r , and by $/v/$ symbolize the ordinal number of the order of the higher-order r . We may introduce a concept 'degree of interpersonal synonymy', DS , in the following way:

$$((37)) \quad DS = \lim_{\substack{N \rightarrow \infty \\ M \rightarrow \infty}} \frac{N}{N+M} \quad \begin{matrix} /r/ \rightarrow \infty \\ /v/ \rightarrow \infty \end{matrix}$$

It is not our purpose to maintain that this quantitative concept is fruitful, and we shall therefore leave undiscussed the many practical and theoretical difficulties we should meet if we tried to apply it. We mention the context because fruitful quantitative concepts can be worked out with ((37)) as a convenient starting point.

((38)) In the following, sentences of the kind «If $\text{Syn}(a p s, a q s)$ ---, then ---» may be conceived as shorthand for «If $\text{Syn}(a p s, a q s)$ is

confirmed with maximum strength in relation to a reference class R, then ---».

Very often, we shall deal with relations in which this usage is convenient. In other cases, we shall write in full, for example, «If Syn(a p s, a q s) is confirmed by means of the following tests --- and to the following degree ---, then ---».

In section 14 we described under the headings A, B, and C three steps in the procedure of establishing hypotheses of interpersonal synonymy. We shall now continue the condensed description, which at the same time is part of the definition of «interpersonal synonymy» as the term is used in this work.

D. Preliminary Second-Order Lists of Interpretation

For each member of the ordinary, first-order reference class, p and q construct lists of interpretation of the same kind as described under heading VII.14, A.

E. Ordinary, Second-Order Reference Classes

For each member of the first-order reference class, an ordinary reference class is constructed in accordance with the rules laid down under heading B.

F. Hypotheses of Interpersonal Synonymy of Each Member of the Ordinary, First-Order Reference Class

Hypotheses of interpersonal synonymy are established in accordance with the procedure indicated under heading C.

G. New, First-Order Reference Class Checked by the Second-Order Reference Classes Described Under D–E

Members of the ordinary, first-order reference class that are disqualified by occurrence of synonymy disagreements listed under F, are dropped. The rest of the members of the ordinary, first-order reference class are replaced by their corresponding second-order reference classes.

The resultant total reference class will be called «a first-order reference class tested by second-order reference classes».

VII. INTRODUCTION OF A GROUP OF CONCEPTS

H. Hypothesis of Interpersonal Synonymy, Defined on the Basis of Synonymy Agreements in Relation to the First-Order Reference Class Tested by Second-Order Classes

Step H and the following steps correspond to step D and onward.

From step 1 on, there will be no step that involves new procedures. In principle, the process can be continued indefinitely. At each step corresponding to H, a new hypotheses is constructed, which is based on more comprehensive material than the foregoing hypothesis. Each hypothesis is operationally defined by the steps leading up to it.

The most general case of interpersonal synonymy

$$(1) \text{Syn}(a_1 p_1 s_1, a_2 p_2 s_2)$$

where

$$-\text{Id}(a_1 a_2) \ \& \ -\text{Id}(p_1 p_2) \ \& \ -\text{Id}(s_1 s_2)$$

may be defined by means of the procedures described above. It is, however, convenient to try to reduce the general case to the special case already discussed.

If

$$(2) \text{Syn}(a_1 p_1 s_1, a_2 p_1 s_2) \text{ or } \text{Syn}(a_2 p_2 s_2, a_1 p_2 s_1)$$

then (1) may be reduced to the special case:

$$\text{Syn}(a_2 p_1 s_2, a_2 p_2 s_2) \text{ or } \text{Syn}(a_1 p_1 s_1, a_1 p_2 s_1)$$

If (2) does not hold, but

$$\text{Syn}(a_1 p_1 s_1, a_1 p_1 s_2) \text{ or } \text{Syn}(a_2 p_2 s_2, a_2 p_2 s_1)$$

then we may change (1) into an interpersonal synonymy relation

$$(3) \text{Syn}(a_1 p_1 s_1, a_2 p_2 s_1) \text{ or } \text{Syn}(a_1 p_1 s_2, a_2 p_2 s_2)$$

If (2) does not hold, but

$\text{Syn}(a_1 a_2 p_1 s_1)$ or $\text{Syn}(a_1 a_2 p_2 s_2)$

then we may instead of (1) use an ambiguity hypothesis

(4) $\text{Syn}(a_1 p_1 s_1, a_1 p_2 s_2)$ or $\text{Syn}(a_2 p_1 s_1, a_2 p_2 s_2)$

for example,

$\text{Het}(a_1 p_1 s_1, a_1 p_2 s_2)$ or $\text{Het}(a_2 p_1 s_1, a_2 p_2 s_2)$

The foregoing reductions are convenient, but they do not make any difference as regards procedures for testing the hypotheses.

VII.17. *Interpersonal Relations of Interpretation and Preciseness*

Because interpretation and preciseness are defined here by synonymy, the definitions of interpersonal relations follow from the definitions in sections 14 and 16 together with those regarding interpretation and preciseness in chapter 1.

An established case of interpersonal synonymy between «a» for p in s and «a» for q in s implies an interpersonal relation of interpretation, but the converse does not hold. This is so because the interpretational relation does not say more than that *within* the type of situation s, a synonymy relation holds. If it holds in a definite subclass of situations, and not in every subclass of s, the general relation $\text{Syn}(y a p s, a q s)$ cannot be maintained.

As regards relations of preciseness, we have:

$$\begin{aligned} (5) \text{Pr}(a p s, a q s) = & \supset (\text{Ex}). \text{Synalt}(a x q s) \ \& \ \text{-Synalt}(a x p s) \\ & \& (\text{Ey}). \text{Synalt}(a y p s) \ \& \ \text{-Synalt}(a y q s) \\ & \& (\text{Ez}). \text{Synalt}(a z p s) \end{aligned}$$

This means that to establish interpersonal relations of preciseness, we shall have to work not just with one formulation, but with any formulation that possibly could be shown to be an x, y, or z of the kind satisfying (5).

VII. INTRODUCTION OF A GROUP OF CONCEPTS

The difficulties connected with a survey of that kind lead to the use of the reference-class method of chapter 2, section 4. If the reference class has n members, there will be separate problems of interpersonal synonymy as regards each of the members.

Although testing interpersonal relations of preciseness requires much work, this does not limit use of the concept to those, perhaps very few, cases in which the operations are performed in all their details. We must distinguish between maintaining a synonymy hypothesis as a fruitful working hypothesis, and testing such a hypothesis with the rigor demanded by the procedural definition. The definition delimits our claims, not necessarily our knowledge, and not at all our guesses.

C. Synonymy of Occurrence Analysis

VII.18. «Synonymy» Defined in the Terms of Occurrence Analysis

In the description of connotational occurrence analysis, we left undecided the question of how to interpret the concluding sentences, the hypotheses in the form of (complete) descriptive definitions of expressions subjected to analysis. One of the concluding hypotheses of the Zaslavski analysis is formulated (roughly) as follows: «total democracy» means to Zaslavski the same as «a kind of organization of society by which the possibilities of each member of the community to influence decisions and policies affecting it are maximized». According to the terminological stipulations of occurrence analysis, this Ds-formulation is meant to express an interpersonal synonymy hypothesis. On the one hand, we have Zaslavski represented by his text *La démocratie soviétique*. Taking as our point of departure the extremely complicated texture of usages of the term «democracy» since Aristotle, we are interested in localizing Zaslavski's usage within that texture. To avoid imposing on him a ready-made classificatory system of usages (for example, classification into Eastern and Western usage), we have tried to stick as closely as possible to the only direct source acknowledged in the analysis: the text itself, with its 192 *use* occurrences.

On the other hand, in an interpersonal synonymity investigation, we have the analyst and his intended public. The analyst tries to convey the intended cognitive meaning of «democracy» (supposing as a tentative hypothesis that there is one) in a terminology suitable to himself and his intended public. That is to say, the analyst's interpretation of the definiens expression of the quoted Ds-formulation should, if this formulation is a communicational success, be identical or closely similar to the interpretation that Zaslavski tries to convey to his readers.

This version of the problem situation in occurrence analysis suggests a need to delimit what is claimed when an identity or close similarity of interpretation is asserted. Proposals for such claims are described in this chapter. One may introduce concepts of interpersonal synonymity in connection with standardized questionnaire and interview techniques. By this connection, the large number of intrapersonal synonymity hypotheses (implied in our implicate formulations in the Zaslavski analysis) and the large number of interpersonal synonymity hypotheses (implied or directly formulated in our inferences and concluding descriptive definitions) acquire a status of testable hypotheses.

The case of Zaslavski is a good example of the practical difficulties encountered when we try a direct test in the way suggested by our Qs questionnaires: it is difficult, if not impossible, to get answers from Zaslavski himself.

Such difficulties, coupled with more fundamental considerations, lead us to attempt to delimit tests or concepts that are closely linked with the steps of occurrence analysis itself.

The concepts to be introduced below seem at first to be based on procedures that differ radically from the questionnaire techniques. There is, however, a close connection. If an author is alive, and one is interested in his terminology, questionnaires and interviews can augment the number of use occurrences of the terms at issue. By means of Qs1, the number of metaoccurrences are augmented, but other questionnaires are also adapted to the creation of new use occurrences. Thus, the questionnaire methods are, so to speak, tools by which synthetical or artificial texts—of special interest to occurrence analysis—may be created. As will be seen later, there are also some relations of interest between the occurrence concepts of synonymity and the already introduced concepts or tests.

VII. INTRODUCTION OF A GROUP OF CONCEPTS

VII.19. Introduction of a Concept of 'Occurrence Synonymity'

Let us consider the following text:

(1) «Wenn ein Aprodukt zweier Aahlen $a.b$ durch eine Logare p teilbar ist, so muss wenigstens der eine der Faktoren, a, b durch p teilbar sein.»

Suppose there is no other text from the hand of this text's author, and that the quoted sentence is the only occurrence sentence containing the term «*Logare*».

Suppose under analogous circumstances we find a second text by a second author:

(2) «Wenn ein Brodukt zweier Bahlen $a.b$ durch eine Mogare p teilbar ist, so muss wenigstens der eine der Faktoren a, b durch p teilbar sein.»

Let us further suppose that we wish to give answers to the following questions:

What is the intended cognitive meaning of «*Logare*» (if there is any)?

What is the intended cognitive meaning of «*Mogare*» (if there is any)?

Do «*Logare*» and «*Mogare*» mean the same?

After we have made two lists of implicates, let us suppose that we make the following hypotheses of translations and inferences:

1. «*Aprodukt*» and «*Brodukt*» mean the same as «product» in the terminology of the analyst. «*Aahlen*» and «*Bahlen*» mean the same as «natural number» in the terminology of the analyst.
2. *Eine Logare* is a member of a certain class of numbers (which class it is remains to be found).
3. *Eine Mogare* is a member of a certain class of numbers.

If these three hypotheses are assumed to be tenable, and no other inferences are made, there is no argument for or against «*Logare*» having a mean-

ing, M_1 , that does not apply to «*Mogare*» having that meaning. That is, there is, on the assumed basis, no reason for attributing different meanings to them. There is, however, an argument for regarding them as synonymous, namely the similarity of inferences 2 and 3. By saying that it is a pro-argument, we do not say anything about the strength of the argument. The strength (power of confirmation) may be taken to be very small, but significantly greater than zero.

With the foregoing as an anticipatory illustration, we now introduce the following concept:

(3) «*a*» is occurrence-synonymous with «*b*» within the occurrence classes S_a and S_b in relation to the two sets of occurrence inferences $F_1(a), \dots$ and $G_1(b), \dots$ shall mean the same as «What is said about 'a' or a's according to the set of occurrence inferences $F_1(a), \dots$, is the same (within the terminology of the analyst) as what is said about 'b' or b's according to the set of occurrence inferences $G_1(b), \dots$ ».

By 'a' and 'b' we refer to concepts that might be mentioned in the inferences, and by a's and b's we refer to denotata.

The occurrence classes S_1 and S_2 are supposed to have at least one member each. They may be delimited as in the above illustration by quoting two texts, or by some other technique.

The occurrence inferences concerning «a» or a's, that is, inferences about the designation investigated or about the things subsumable under a concept 'a' expressed by «a», are labeled $F_1(a), F_2(a), \dots$. It is presumed that they (in conformity with the requirement of step 3 of the occurrence analysis) have been made consistent.¹⁴ The same is presumed of the analogous set $G_1(b), \dots$.

If $a_1, a_2, \dots, a_i, \dots$ and $b_1, b_2, \dots, b_j, \dots$ are the members of the occurrence classes S_a and S_b mentioned in (3), $F_1(a), \dots, a_i$ will be said to be occurrence-synonymous with b_j in relation to the sets of inferences $F_1(a), \dots$ and $G_1(b), \dots$.

If the occurrence inferences from two occurrence classes—for example, from two texts written by different authors—are to be compared, it is convenient to formulate the inferences in such a way that similarities and differences, consistencies and inconsistencies, are brought to attention.

VII. INTRODUCTION OF A GROUP OF CONCEPTS

Many additional inferences may be included in the classes as a result of such a comparison, because attention is focused on new aspects of usage and opinions.

Suppose we find as continuations of the texts (1) and (2): «5 ist eine *Logare*» and «7 ist eine *Mogare*». We may view the new findings as confirmation of our previous translations and inferences. Let us include in the two sets of inferences the following ones: In the a-set: «The class of numbers '*Logaren*', intended by «*Logaren*», includes the number 5». In the b-set: «The class of numbers '*Mogaren*', intended by «*Mogaren*», includes the number 7».

In relating to the new sets of inferences, it is tempting to define «occurrence-heteronymous» in such a way that «a» and «b» in the above case have that property. We shall not do that, however, if we think it at all likely that what is said about the a's might also hold good for the b's. In the present case, I see no reason why 7 should not turn out to be a *Logare* and 5 a *Mogare*. There is no positive evidence in the occurrence sentences by which to decide the question. If the new inferences were such that what was said about the *Mogare* scarcely could hold about the *Logare*, or vice versa, this incompatibility should be expressed in the formulations of the new inferences. In using the following concepts, we have presupposed such a technique of formulation.

- (4) ««a» is occurrence-heteronymous with «b» within the occurrence classes S_a and S_b in relation to the two sets of occurrence inferences $F_1(a), \dots$ and $G_1(b), \dots$ » shall mean the same as «What is said about 'a' or a's according to the set of occurrence inferences $F_1(a), \dots$ is inconsistent with what is said about 'b' or b's according to the set of occurrence influences $G_1(b), \dots$ ».

Consider the example of an occurrence inference from one text unit that reads, «No plutocracies can be democracies in the sense of the author», and an occurrence inference from a second text unit that reads, «Some plutocracies can be bourgeois democracies in the sense of the author». Let «democracies» and «bourgeois democracies» be the expressions that we wish to investigate.

If we disregard the reference to authors in the occurrence inferences, and construct two new sentences by substituting one expression for the other, the following four sentences are formed:

«No plutocracies can be democracies.»

«Some plutocracies can be democracies.»

«No plutocracies can be bourgeois democracies.»

«Some plutocracies can be bourgeois democracies.»

The first and second sentences are consistent, as are the third and fourth. If we disregard the difference between the two expressions investigated, and interpret the text as if only one expression had been found at the occurrence places of the two expressions, then inconsistencies are made possible (provided the occurrence inferences are accepted as tenable).

The term «inconsistent» in definition (4) must be interpreted in connection with a procedure of substitution as outlined in this example. Heteronymy is asserted if there is inconsistency in the sense of inconsistencies within the class of sentences constructed by substituting the crucial expressions «a» and «b» for each other in the inference formulations and by eliminating the references to authors.

(5) ««a» is incomparable to «b» in respect to occurrence synonymy within the occurrence classes S_a and S_b in relation to the two sets of occurrence inferences $F_1(a), \dots$ and $G_1(b), \dots$ » shall mean the same as «What is said about 'a' or a's according to the set of occurrence inferences $F_1(a), \dots$ is different from, but not inconsistent with, what is said about 'b' or b's according to the set of occurrence inferences $G_1(b), \dots$ ».

In the survey of complex relationships, we may find the following symbol helpful as a condensed expression of the definiendum of (3):

$\text{Synocc}(aS_aF(a), bS_bG(b))$

Since the reference to authors and their intention is basic, in the occurrence inferences one may include the reference in the symbol:

$\text{Synocc}(aP_1S_aF(a), bP_2S_bG(b))$

In our general symbol for synonymy sentences with indications of reference classes, S_a and S_b correspond to the delimitation of situations

VII. INTRODUCTION OF A GROUP OF CONCEPTS

and $F(a)$ and $G(b)$ to reference classes of the kind introduced in earlier chapters.

Corresponding to the special cases of synonymy sentence is the case of one expression being investigated, but different classes of occurrences:

$$\text{Synocc}(aP_1S_aF(a), aP_2S'_aF'(a))$$

Other cases of interest are those of $P_1 = P_2$, and of P_1 being an author analyzed and P_2 being the analyst. In the latter case, the analyst asserting the occurrence synonymy is the one who has made the text containing the occurrences of «b». He is usually considered to know how he has used his term «b», and occurrence analysis with implicates and inferences might therefore be considered superfluous. In principle, there is no difference, however, between an investigation of past happenings produced by oneself and an investigation of happenings produced by others.

From the manner of arriving at the conclusion that two expressions are occurrence-synonymous, it follows that that relation must be reflexive, symmetrical, and transitive, provided the marginal references (the P's, S's, and F's) are held constant.

VII.20. Occurrence Synonymy and Connotational Occurrence Analysis

The Zaslavski analysis (pages 332–33) proceeds from an investigation of a text containing 192 use occurrences of an expression.¹⁵ In the symbols of the preceding section, P_1 is Zaslavski; text number 1 is *La démocratie soviétique*; and the crucial expression, «a», is «démocratie». The class S_a contains the occurrences a_1, a_2, \dots, a_{192} , that is, all use occurrences in the text.

The connotational occurrence analysis of the Zaslavski text may, if the concepts of section 18 are adopted, be said to culminate in the evaluation of tentatively asserted interpersonal occurrence synonymies, namely, synonymies between «a» in Zaslavski's text and rather complex expressions in the analyst's text. How the latter are interpreted the analyst may feel certain about and find unnecessary to investigate by studying his own terminology.

With regard to his intended public, however, the question is not as simple; but it is part of the analyst's job to make use of expressions (such as

«b» terms of the synonymity relations) that the members of his intended public do not need to subject to occurrence analysis. It should be enough for them to read the metaoccurrence b_0 in the tentatively asserted occurrence synonymity. That it is enough is the analyst's claim if he, as we have done in the concluding sections of our Zaslavski analysis, formulates tentative Ds-formulations as conclusions without adding something like the following explanatory note: «as to the meaning of the terms used in my definientia, they are intended to be used as you will find them used in the following text: ---». Notes of this kind are not rare in the literature of philosophic analysis, but the more frequent case is that in which the analyst merely puts forth his definientia as self-explanatory.

The lack of discussion regarding the formulations used as definientia of the descriptive definitions does not owe to a belief that they are unambiguous. If they were made more precise, however, their number would have to be much greater, and the nuances made explicit by the precisizations would mostly be such that the analyst could not find any evidence favoring one rather than another. By keeping the descriptive definitions vague and ambiguous—within certain limits—he avoids complicated surveys of possibilities that lead nowhere. By leaving the ambiguity unmentioned, on the other hand, he creates possibilities of misunderstanding owing to differences between himself and his intended public regarding how the scope and limits of the ambiguities are conceived.

Interpreting the conclusions of connotational occurrence analysis in terms of occurrence synonymity, we encounter the question, What is the set of inferences $G_1(b)$. . . ?

The analyst tries to pick out Ds-definitions that are consistent with all occurrence inferences, $F_1(a)$. . . That is, if «b»—the definiens formulation of the Ds-definition—is adopted and «b» is substituted for «a» in the text analyzed, it is the analyst's contention that if the author of the text had interpreted «b» as does the analyst, he would have accepted the occurrence sentences. From the new text, with «b» instead of «a», the analyst would make exactly the same inferences that he made from set $F_1(a)$. . . That is, the two sets of inferences $F_1(a)$. . . and $G_1(b)$. . . would be identical.

In this way the concepts of occurrence synonymity can be applied to the conclusions of connotational occurrence analysis—the descriptive definitions of usage.

VII. INTRODUCTION OF A GROUP OF CONCEPTS

Let us apply those views to the simple illustration of section 19. Suppose the analyst interested in connotations tentatively asserts this hypothesis: «*eine Logare*» in text (1) (with supplements) means the same as «a prime number». Provided that previously accepted translations are also used, we get the following form for text (1): «*Wenn ein product zweier natural numbers a, b durch eine prime number p teilbar ist, so muss wenigstens der eine der Faktoren a, b durch p teilbar sein; 5 ist eine prime number*».

The English words «product» and «natural numbers» mark out places in the text at which the analyst, by using auxiliary hypotheses, has translated parts of the original text into his own language. All English words in the text are supposed to be interpreted as intended by the analyst. If the author of the text were to use that interpretation, the analyst contends, he would accept the new text as intrapersonally synonymous with its original text. The analyst would make inferences from the new text that result in a set of inferences $G_1(b) \dots$, which assert (in the terminology of the analyst) the same about the b 's as the inference class $F_1(a) \dots$ said about the a 's.

Innumerable descriptive definitions are such that if the definiens « b » is inserted for « a », text (1) is made to assert things that are acceptable in ordinary arithmetic. Instead of «prime number» one might insert «natural number», or «number divisible by 3 and 5», or «5, 6, and 7», or «perfect number», or designations expressing any other finite or transfinite class of natural numbers that has 5 as a member. (In the esoteric terminology of Cantor, the cardinal number of descriptive definitions satisfying the conditions is a transfinite number, namely alef-one. All subclasses of a definite class [cardinal number alef-one] of prime numbers give descriptive definitions and satisfy the requirements of the occurrence inferences, together with those of arithmetic. The cardinal number of that class of subclasses is alef-one.)

Actually, text (1) is a transcription of a theorem stated in the *Encyklopädie der Elementar-Mathematik* (1906/07: 2:48): «[w]enn ein Produkt zweier Zahlen a, b durch eine Primzahl p teilbar ist, so muss wenigstens der eine der Faktoren a, b durch p teilbar sein».

It is instructive to see how many kinds of descriptive definitions of the term «*Primzahl*» result, if the definitions are used to reformulate the account of such numbers in the *Encyklopädie*, in theorems or arguments that are acceptable in arithmetic. This holds good, of course, only if metaoccur-

rences are ignored. (There are good reasons to ignore them in proofs: it cannot be proved mathematically that any normative definition ever has been followed.)

VII.21. Occurrence Preciseness

With ‘occurrence synonymy’ as a basic concept, concepts of ‘occurrence synonymic alternative’, ‘occurrence interpretation’, and ‘occurrence preciseness’ can be introduced. We shall not here make any systematic exposition but will follow closely the lines of chapter 1.

The term «synonymic alternative» was introduced in chapter 1 so that we would have a short name for all expressions that sometimes by someone are interpreted to mean the same as a given expression. A concept of ‘occurrence synonymic alternative’ can be constructed by letting the marginal references, including or not including the reference to inference classes, undergo variation. The former alternative will be preferred here.

Suppose we have found:

$$\text{Synocc}(aP_1S_aF(a),bP_2S_bF(b))$$

We then ask, Are there other expressions, «c», «d», . . . , that to the same or other persons, relative to the same or other occurrence classes and inference classes, are occurrence-synonymous with «a»?

Let us suppose we find other expressions by variation of marginal references:

$$\text{Synocc}(aP_1S_aF(a),BP_2S_bF(b)) \ \& \ \text{Synocc}(aP_1S_aG(a),cP_2S_cG(c))$$

$$\text{Synocc}(aP_1S'_aF'(a),P_2S_dF'(d)) \ \& \ \text{Synocc}(aP_1S_aF(a),eP_3S_eF(e))$$

‘Occurrence synonymic alternative’ may now be introduced as follows:

- (1) ««b» is an occurrence synonymic alternative of «a»» shall mean the same as «There is at least one pair of persons, one pair of occurrence classes of «a» and «b», one pair of inference classes $F(a)$ and $F(b)$ such that in relation to a set of such pairs, «a» is occurrence-synonymous with «b»».

VII. INTRODUCTION OF A GROUP OF CONCEPTS

In symbols:

$\text{Synoccalt}(b,a) = \text{D}$
 $(\text{Ex}) (\text{Ey}) (\text{Ez}) (\text{Et}) (\text{Eu}) (\text{Ev}). \text{Synocc}(\text{axyz}, \text{btuv}) \ \& \ \text{Pers}(\text{x}) \ \& \ \text{Pers}(\text{t})$
 $\ \& \ \text{Occl}(\text{y}) \ \& \ \text{Occl}(\text{u}) \ \& \ \text{Infcl}(\text{z}) \ \& \ \text{Infel}(\text{v})$

We may introduce, as analogous to the term «preciseness» of chapter I, a concept of 'occurrence preciseness':

(2) «*b*» is more occurrence-precise than «*a*» shall mean the same as «The class of occurrence synonymic alternatives of «*b*» is a genuine subclass of the occurrence synonymic alternatives of «*a*», and that subclass is not the zero class».

In the illustration on pages 386–87, there might be a relation of preciseness between «*a*» and «*b*», if, for example, «*b*» permits «*c*» and «*d*», but not «*e*», as occurrence synonymic alternatives.

In practice, it is unlikely that expressions in the vernacular will be found to stand in relations of occurrence preciseness to each other, because of the complexity of usage. Only if we severely limited the occurrence classes and inference classes, might the requirement of the definition of occurrence preciseness be fulfilled. Seldom, however, is there use for investigations on such a narrow basis.

The importance of the occurrence preciseness must be judged from its use in simplifications or models of usage within technical terminologies, and from its use as the simple limiting case of relations by which one expression, «*b*», permits rather numerous or important synonymic alternatives, and another, «*a*», permits very few or unimportant ones that are common to both; or, as simple limiting cases of relations by which the classes of occurrence inferences are nearly the same, the differences consisting in inferences that are of little importance.

The practical fruitfulness of the concepts introduced in this section is not yet established, because few attempts have so far been made to use them; this creates a situation that is rather common at the first stages of empirical investigations.

VII.22. Occurrence Analysis Disregarding Authors and Intended Meanings: Authoritative Systems as Guides for Interpretation

The connotational occurrence analysis described in chapter 6 and the occurrence synonymy concept of this chapter refer to intended meanings and opinions of an author and the intended meanings of the analyst. This does not imply that private states of consciousness are somehow the basic events related in the interpersonal synonymy hypotheses. It is not presumed in the analysis that intentions have an introspective nature and cannot be defined behaviorally or by a combination of behavioral and introspective entities. Nevertheless, the reference to intention makes the introduced concept of occurrence synonymy rather special.

In this section we shall introduce a concept that does not refer to intentions or opinions of persons using expressions in communication.

In theories of interpretation adapted to interpretation of laws in democracies, it is usual to talk of «the meaning» of a formulation as something independent of any intention expressed or implied by lawgivers. In mathematics, the formulations of proofs have an interest independent of what the authors mean to prove. In general, we are interested in a text more or less independently of exactly what its author or authors may have intended to express and also more or less independently of specific opinions they have held about subjects directly or indirectly determining the wording of the text.

In connection with precisizations and explanations of «meaning», as used to refer to intended meanings, there is a place for a concept of nonintentional occurrence synonymy.¹⁶

Suppose someone makes the following proclamation:

«This text, T, shall guide us; it shall be valid for us. In interpreting the text, however, we shall not try to fathom the exact meaning that its words had for its authors. We shall take the usage within our community (or: our competency group) as the basis for our interpretation of the words of each sentence or paragraph. Further, if usage is ambiguous, and the interpretations result in assertions that are more or less consistent with the opinions of our community, the interpretation to be considered the valid one will be the one that is most in harmony with those opinions».

VII. INTRODUCTION OF A GROUP OF CONCEPTS

If the text *T* is interpreted along the lines suggested by this proclamation, there will be a clash between the assertions of *T* and the opinions of the competency group only if all interpretations of a sentence that are consistent with the usages of the competency group result in assertions that are incompatible with the opinions of the competency group. The suggested manner of treating *T* makes it predictable that interpretations change with time, because of changes in usage and opinions within the competency group. One may, however, accept as a postulate the existence of a definite, consistent system of usage and opinions within the competency group at a definite time. In practice, one may accept a system of rules for guiding opinion surveys such that it is possible to identify and ascertain the opinion of the competency group on any question likely to emerge.

The quoted proclamation illustrates only one kind of background for the establishment of criteria of interpretation that lack reference to an author's intended meanings and opinions other than those that can be construed on the basis of his text. The so-called nonintentional occurrence analysis differs from that described in chapter 6 in the following particulars:

Step. 1. Occurrences are always delimited by reference to texts, not by reference to persons.

Step. 2. The implicates are constructed as illustrated by the following reformulations of the implicates quoted on pages 307–08.

The first implicate of occurrence sentence 21 might be thus formulated: «as used at occ. 21, the term «democratic» expresses—interpreted consistently with the system Σ of rules of usage—something that makes it meaningful to say about a state order that it is truly democratic, or that it is not truly democratic, or that it is democratic, or that it is not democratic».

The second implicate of occurrence sentence 21 might be thus formulated (cf. pages 307–08): «as used at occ. 21, the expression «state order» denotes—interpreted consistently with the system Σ of rules of usage—things that, with the exception of one, are subsumable under a class 'not truly democratic state order'».

It is here presumed that a system Σ , consisting of subsystem Σ' of rules of usage and a subsystem Σ'' of opinions, is given somehow. As it cannot be given explicitly and completely in the form of a system of sentences, it must in part be hypothetically structured. It must be presupposed, how-

ever, that there are rules such that for every occurrence, the system can be consulted. This means that every implicate must, in principle, be derived by rules, usage, and syntax ascertained not to be inconsistent with those that the competency group would seem to use. That is, the analyst must, by fresh investigations of the verbal behavior of the competency group or by use of generalizations already obtained and explicitly referred to as part of the system Σ , ascertain that his construction of implicates is not inconsistent with the system.

The standard form of implicates (page 310) may be reformulated thus: «at occurrence number x of the term « a » it expresses—if interpreted in accordance with the system of rules of usage—something that makes --- subsumable under ' a '».

It was said in the exposition of ordinary occurrence analysis that, when one analyzes the use of the term «state order» in Vyshinsky's text, all his opinions about state orders are relevant. Any limitation of the investigations to a narrower field can be justified only by limitations in research facilities. In the system-centered occurrence analysis, all that Vyshinsky says about state orders, except what he says in the chosen text, is in principle irrelevant. Moreover, what he says in the text is to be interpreted consistently with the rules of usage of the system and, as far as possible, in such a way that no opinions can be said to be expressed in the text that are in conflict with the opinions included in the system.

Step 3. A decisive step in the intention-oriented occurrence analysis is made when the analyst tries to translate the implicates and occurrence sentences (minus the «term « a »» under investigation) into his own language and that of the prospective readers of the amount of his analysis. No such step is made in the nonintentional analysis, since no author is recognized. The text has already, in the process of constructing the implicates, been interpreted in accordance with the authoritative canon of usage.

In the intention-oriented analysis, the interpretations leading to occurrence inferences (cf. 3, page 312) should not transgress the definiteness of intention of the author—a most difficult thing about which to have a well-founded opinion. In the nonintentional analysis, this is not a problem; the definiteness of intention of the competency group is here relevant, not that of the author or authors. It is, as a basic premise, taken for granted that the analyst can, by proper procedures, ascertain the usage and opinions of this

VII. INTRODUCTION OF A GROUP OF CONCEPTS

group, and therefore also make investigation of the definiteness of intention with in the group.

Just as in the case of intentional analysis, questions of consistency among inferences play an important role in shaping a definitive set of inferences on the basis of which descriptive definitions of usage are tested.

Step 4. This step is taken only if one wishes to conclude with tentative descriptive definitions of usage. In the nonintentional analysis, such definitions will not have the form adapted to the intention-oriented analysis (cf. pages 319–20). That form should be reformulated in the following direction: «the designation T_0 expresses the same as T_1 at occurrence numbers --- of the text, the same as T_2 at occurrences numbers . . . of the text, ---». T_1, T_2, \dots are here definiens formulations within the terminology of the system Σ . If we assume that the competency group in practice operates as one person, the descriptive definitions of the nonintentional analysis are intrapersonal synonymy hypotheses. The analyst must (of course) use his own terminology and try to understand both the text and the utterances of the competency group in his own terms, but the translations into the language of the analyst may be considered only as an episode: the conclusions are intended to be interpreted within the range of the authoritative system Σ .

Now that we have outlined a nonintentional occurrence analysis, we are prepared to compare an occurrence synonymy concept adapted to such an analysis with the already introduced concept.

In formulation (3) we need only change «within the terminology of the analyst» to «within the terminology of the accepted system» to make it adapted to the system-oriented analysis. The inconsiderableness of the change owes to the reliance of (3) on a concept of ‘sets of inference classes’ presumed to have been introduced in connection with step 3 of the ordinary occurrence analysis. An introduction of a concept adapted to the nonintentional analysis must, if made complete, refer to a concept of ‘sets of inference classes’ connected with step 3 of the system-oriented analysis.

VIII

Synonymity Questionnaires in Use

VIII.1. Scope of the Empirical Studies Reported in This Chapter

By Qsxy concepts or tests of the kinds introduced in chapter 7, synonymity sentences can be transformed into hypotheses that are, in principle, testable by relatively simple procedures. In practice, the questionnaire procedures schematically outlined in chapter 7 are not always applicable, and even in cases in which they might seem well adapted to the questions posed, they need careful discussion. In contemporary social science, the methodology of questionnaire methods has contributed much to the refinement of the rather crude techniques in use two or three decades ago, and it has also shown, by empirical investigations, how imperfections in the wording of the questionnaires and in other stages of the procedure influence results.

In this chapter it is impossible to report on more than a handful of the empirical studies that have made use of Qsxy questionnaires or related kinds. Each study that has been undertaken with the aim of contributing to discussions on usage would require extensive space to be reported reliably. Some of the studies whose authors have used questionnaires identical or similar to the Qsxy questionnaires are listed in the references starting on page 505.

This chapter will be devoted to the exposition of a series of studies illustrating the kinds of difficulties that immediately turn up, even when the simplest questionnaires, especially Qs1, are applied to concrete problems of usage and communication. The studies are selected not only because of the simplicity of the procedures employed, but also because of the interest in the results for assessing the prospect of a general hypothetico-deductive system concerning use regularities.

Among the theorems in such a system, tentatively outlined, some con-

VIII. SYNONYMY QUESTIONNAIRES IN USE

cern basic regularities of answers to different questionnaires. A group of the theorems affirms the existence of a high positive correlation between answers to pairs of questionnaires of the kind Q_{s1} , in which the crucial expressions T and U are substituted for each other. Roughly speaking, these theorems concern the empirical symmetry of Q_{s1} A-synonymity—the tendency to interpret T to mean the same as U, if U is interpreted to mean the same as T. Other theorems concern corresponding properties of transitivity.

VIII.2. Empirical Symmetry of the Relations of Q_{sxy} -Synonymity

The expression « Q_{sxy} -synonymity» is used as a collective name for the synonymity relations defined by the concepts or tests of chapter 7. Only Q_{s1} A, Q_{s1} B, Q_{s2} A, Q_{s2} B, . . . , Q_{s5} B are referred to in the following.

In formal logic a relation R is called «symmetrical in the class K» if, for any two elements x and y of the class K, the formula xRy («x has the relation R to y») always implies the formula yRx . If xRy always implies $\neg(yRx)$, the relation is called «symmetrical in the class K». (For elaborations, see Tarski 1946: 93ff.; Cooley 1942: 108.)

In this work we need a pair of closely related, but somewhat broader concepts. If yRx does not hold good for any two elements x and y of the class K, but for most, provided xRy holds for any two elements, we shall still be able to speak of the relation R as being symmetrical. To avoid misinterpretation of the term, we shall use the designation «empirical symmetry» or «synthetical symmetry».

If there is a sufficiently high positive correlation between xRy and yRx to warrant the assertion of an empirical theorem, R will be said to be «symmetrical». By this normative definition the possibility is not *per definitionem* excluded that xRy implies yRx . In that case the correlation must be expected always to be equal to 1. On the other hand, if correlations less than 1 are found, we may rule out the possibility of implication. «Symmetry» may accordingly be translated in the following by the designation «logical or empirical symmetry» or «analytical or synthetical symmetry».

For each of the synonymity concepts or tests introduced in relation to the questionnaires of chapter 7, there may be asked a question of the following kind:

VIII.2. Empirical Symmetry of the Relations of Qsxy-Synonymy

If an expression «a» is Qsxy-synonymous with an expression «b», what is the chance that «b» is Qsxy-synonymous with «a»?

In other words, the question of symmetry can be raised in relation to each concept or test introduced by the questionnaires.

In chapter 2, section 6, a term «synonymous» was introduced in such a way that if x is synonymous with y, y is *per definitionem*, and therefore by implication, synonymous with x. When the term is thus introduced, there is no need for investigations of empirical kinds to establish the symmetry of the relation synonymy. Such investigations would in any case be difficult to procure because of the imperfections of the normative definition of «synonymy»; see (1) in chapter 2, section 6. The definiens expressions contain as a central term the vague word «meaning». From the point of view of empirical research, the normative definition (1) is an *obscurum per obscurius*.¹

Introduced as in chapter 7, the relations of synonymy are not *per definitionem* symmetrical. It remains to be shown whether they are or are not symmetrical in an empirical or synthetical fashion.

One of the main contentions of this chapter may be thus roughly formulated:

On the basis of available evidence, Qsxy-synonymy relations are symmetrical. The symmetry does not, however, hold without exceptions.

As a matter of fact, many series of answers reported below contain a percentage of disconfirming instances of symmetry too high to be considered a normal percentage of exceptions to an empirical theorem. These series, however, are not considered a fair sample, for reasons that will be explained later. Other series show a satisfactory correlation between xRy and yRx for purposes of theorem construction.

In chapter 2, section 6, it was proved that if «synonymy» is defined in such a way that it is a symmetrical relation, and if «synonymic alternative» is defined as in chapter 1, section 10, then the relation of synonymic alternative will be analytically symmetrical.

From this it follows that if it is (empirically) found that a synonymy relation holds between certain expressions and that the relation is symmetrical, then the relation of synonymic alternative between those expressions will also hold good. Thus, confirmatory instances of an empirical theorem about symmetry of synonymy will also constitute confirmatory instances of an analogous theorem concerning synonymic alternatives. Because of

VIII. SYNONYMY QUESTIONNAIRES IN USE

this, we shall not mention anything about the relation of synonymic alternatives in the account about symmetry.

Some might object, against the program of testing symmetry theorems, that considering the triviality and obviousness of the symmetry of fruitful concepts of synonymy relations, the program is not worth carrying out. Such an objection seems to stem from a neglect of the requirements necessary to arrive at reliable knowledge expressed in systems of theorems. Whatever is not analytical should be tested. How many tests should be performed is another question. At least some testing must be done to show that the procedures involved are practicable. As for the question of fruitful concepts of symmetry, any fruitful concept that does not make the theorems about symmetry analytical will make them vulnerable to all kinds of complications inherent in empirical procedures. There will be exceptions, or at least doubtful cases.

VIII.3. Empirical Evidence of Symmetry of Synonymy Relations as Defined by Questionnaires

Questionnaires of Type Qs1

The general form of Qs1 questionnaires is given in chapter 7, page 399ff.

Text Used

All Qs1 questionnaires to be discussed in the following have a common text:

«There has been some discussion about the question of whether a greater number² than usual failed in logic at the preliminary examinations. [It is true that] a greater number than usual failed, but a greater number failed in psychology and history of philosophy than in logic».

The expression in square brackets (inserted here by the author) underwent variations; the rest of the text was kept constant.

Three types of Qs1 questionnaires, all using this text, were employed.

1. Qs1d Nos. 0.1–0.6 asked for synonymy between *designations*.
2. Qs1 Nos. 1.1–1.6 were the analogous questionnaires asking for *sentences containing designations*.
3. Qs1 Nos. 2.1–2.6 concerned *sentences*.

VIII.3. Empirical Evidence of Symmetry of Synonymity Relations

Crucial Sentences, T and U

The sentences T and U used in QsI Nos. 2.1–2.6 were the following pairs:

QsI No. 2.1	It is true that a greater number than usual failed. It is perfectly certain that a greater number than usual failed.
QsI No. 2.2	It is perfectly certain that, etc. It is true that, etc.
QsI No. 2.3	It is the case that, etc. It is perfectly certain that, etc.
QsI No. 2.4	It is the case that, etc. It is true that, etc.
QsI No. 2.5	It is perfectly certain that, etc. It is the case that, etc.
QsI No. 2.6	It is true that, etc. It is the case that, etc.

Instructions

The instructions were slightly different for each of the three kinds of questionnaires. The instructions for QsI No. 2.1 are stated fully in chapter 7, page 400. Those for QsI No. 1.1 read:

This text was offered you as an example of a text containing the expression [«it is true that»]. Let us call this expression T. What I should like to know is the following:

Suppose the expression [«it is perfectly certain that»] (let us call it U) had occurred in the place of T in the text. Would the sentence containing U have expressed to you the same assertion as the sentence containing T did when you read T?

In QsI No. 0.1 the last sentence reads, «Would U have expressed to you the same as T did when you read T?»

Order of Presentation of Questionnaires

The respondents were given QsI Nos. 0.1–0.6, Nos.1.1–1.6, Nos.2.1–2.6, or a mixture. The order of presentation varied. In some series, a questionnaire in which an expression «b» was substituted for «a» was not immediately followed by a questionnaire in which «a» was substituted for «b». Instead, a questionnaire containing a third expression, «c», was introduced.

Subjects Tested

The subjects tested were students. Most of them were sophomores, ranging in age from about eighteen to twenty. They were taking or had already

VIII. SYNONYMITY QUESTIONNAIRES IN USE

taken an introductory course in logic with some excursions into semantics. This is a required course for all students at the University of Oslo.

The subjects were not told about the aim of the questionnaires.

Main Results

Table 3 shows the results obtained from some of the Qs1 questionnaires (see table 4 for additional results).

In columns 2–5, four categories of answers are distinguished:

Syn(ab) & Syn(ba)	Affirmation of both synonymities. Classed as full confirmatory instance of the theorem asserting Qs1A-synonymity.
Syn(ab) & -Syn(ba)	Affirmation of the first, negation of the second. Classed as full disconfirmatory instance.
-Syn(ab) & Syn(ba)	Negation of the first and affirmation of the second. Same classification.
-Syn(ab) & -Syn(ba)	Negation of both synonymities. Classed as weak confirmation.

Column 6 subsumes all the answers that were difficult to classify. Column 8 gives the total number of cases of confirmations, full or weak; and column 9 gives the number of full cases of disconfirmation.

Preliminary Discussion of Results

Of 436 pairs of answer, only 9 are clear disconfirmatory instances of symmetry. This we take as a very satisfactory main result. More cannot be said until we discuss the nature of the disconfirmatory instances (section 7), below.

The unclassifiabiles—roughly 12 percent—are cases in which the answers to the synonymity questions were more or less obscure, ambiguous, or indirect. Much effort has been made to reduce such unsatisfactory answers, but with little success. The marked variation in number of «unclassifiabiles» from test to test owes partly to the use of different criteria of classifiability.

The figures indicating synonymities are rather small to warrant statistical discussion. It seems, however, that «true» and «perfectly certain» are not as often conceived as synonymous as are «is the case» and «perfectly certain», and «is the case» and «true». This is in agreement with results obtained by a considerable number of other questionnaires, most of which must be left unmentioned in this work.

No marked differences seem to be attributable to a shift from question-

Table 3: Symmetry of Qs1A-Synonymy Relations

(1)	(2) Syn(ab) & Syn(ba)	(3) Syn(ab) & -Syn(ab)	(4) -Syn(ab) & Syn(ba)	(5) -Syn(ba) & -Syn(ba)	(6) Unclassifiable	(7) Total	(8) Confirmatory Instance	(9) Disconfirmatory Instance
Qs1 Nos.								
1.1 & 1.2	34	0	2	7	5	48	41	2
2.1 & 2.2	104	1	2	19	15	141	123	3
1.3 & 1.5	27	0	0	2	0	29	29	0
2.3 & 2.5	60	0	0	4	2	66	64	0
0.4 & 0.6	55	1	2	5	32	95	60	3
2.4 & 2.6	53	1	0	3	0	57	56	1
Total	333	3	6	40	54	436	373	9

VIII. SYNONYMITY QUESTIONNAIRES IN USE

naires on designations to those concerning sentences. This justifies our tentative parallel treatment of designations and sentences.

Further Qs1 Questionnaires

The foregoing questionnaires all used declarative sentences as T and U. Pairs of questionnaires were also constructed to test symmetry relations between imperatives and between question sentences. The general schema of the questionnaires is the same as before; therefore, they are all classed as Qs1.

The text presented to the respondents in Qs1 No. 2.7 was «In the textbook of logic for the preliminary examination, some of the technical terms are defined. [In the lectures, those definitions are followed.]»

The instructions were the same as for Qs1 Nos. 2.1–2.6. The sentence in square brackets functioned as T, and for U we selected «In the lectures those technical terms are used in accordance with the definition».

In Qs1 No. 2.8, U was found in the text and T was introduced in the instructions.

The results of this pair of questionnaires, Qs1 Nos. 2.7 and 2.8, were then compared with the results of a pair containing imperatives, Qs1 Nos. 1 and 2. The text of No. 1 was «In the textbook in logic for the preliminary examination, some of the technical terms are defined. [Follow those definitions!]» In the instructions, the respondents were asked to substitute «Use those technical terms in accordance with the definitions!» for the bracketed sentence. The synonymity question asked, «Would U! have expressed the same imperative to you as T! expressed when you read T!?»

Qs1 No. 2 was exactly like No. 1, except that U! was substituted for T! and vice versa.

The text of Qsq1 No. 1, with question sentences, read: «After the preliminary examination, autumn 1949, A. N. said to some of the candidates, «In the textbook some technical terms are defined. [Did you follow those definitions?]» The question called T? was then placed in relation to U?, «Did you use those technical terms in accordance with the definitions?»

In the second questionnaire, Qsq1 No. 2, T? was replaced with U? and vice versa.

Main results

Table 4 displays the main results of the six questionnaires tabulated.

Table 4. Symmetry of Qs1A-Synonymy Relations (continued)

(1)	(2) Syn(ab) & Syn(ba)	(3) Syn(ab) & -Syn(ab)	(4) -Syn(ab) & Syn(ba)	(5) -Syn(ab) & -Syn(ba)	(6) Unclassifiable	(7) Total	(8) Confirmatory Instance	(9) Disconfirmatory Instance
Qs1 Nos.								
Qs1 Nos. 2.7 & 2.8	29	3	1	9	3	45	38	4
Qs1 Nos. 1 & 2	25	8	2	9	2	46	34	10
Qsq1 Nos. 1 & 2	26	3	0	15	4	48	41	3
Total	80	14	3	33	9	139	113	17

VIII. SYNONYMY QUESTIONNAIRES IN USE

Preliminary Discussion of Results

The frequency of disconfirmatory instances, 17 out of 139, is much greater than in the first series of experiments (9 out of 436). It is not clear why this is so. It may owe in part to the manner in which the questionnaires were presented: they were shuffled together with numerous other questionnaires of other types in such a way that the respondent, when answering QsI No. 2.7, for example, could not easily know that there was any connection between that questionnaire and QsI No. 2.8, even though he had already answered QsI No. 2.8. Thus, if he had been very uncertain whether to answer yes or no to No. 2.8, and finally answered yes, this decision may not have influenced him in the direction of a positive answer to QsI No. 2.7. The respondents were prevented from looking at questionnaires previously given and answered.

The large number of disconfirming instances might also be explained by the special text used in these questionnaires. The discussion of these possibilities is taken up in section 9.

During interviews with the seventeen people who gave disconfirming answers, sixteen of them modified their answers so that only one disconfirming instance remained. This kind of interview is discussed below (page 470).

In table 5, I have detailed the degree to which answers to synonymy questions of declarative sentences correspond to answers related to analogous imperatives and questions. In the first column, the questionnaires used are indicated. The rest of the columns are divided into two parts, according to a classification of all respondents into those who gave at least one pair of answers that yielded a disconfirmatory instance of symmetry, and those who did not give any such answer.

As might be expected from the results reported in table 4, the answers of persons confirming the symmetry theorem show a higher correlation with changes in questionnaires than do the answers of the other respondents. As many as eleven out of twenty answers by members of the latter category are different, whereas only ten out of seventy-five answers by persons confirming the symmetry theorem differ according to kind of questionnaire.

Let us call the following theorem a «correspondence theorem of QsIA-synonymy»:

«If a person declares T and U in a text to be synonymous, he will tend to declare T' and U' in the same text synonymous, if T' is an

VIII.3. Empirical Evidence of Symmetry of Synonymity Relations

Table 5. Comparison of Answers to Qs1 No. 2.7, Qsi1 No. 1, and Qsq1 No. 1

	Respondents Not Giving Disconfirmatory Instance of Symmetry			Respondents Giving Disconfirmatory Instance of Symmetry		
	<i>Same</i>	<i>Diff.</i>	<i>Unclas.</i>	<i>Same</i>	<i>Diff.</i>	<i>Unclas.</i>
Qs1 & Qsi1	26	2	4	8	3	1
Qs1 & Qsq1	23	5	4	5	5	2
Qsi1 & Qsq1	26	3	3	7	3	2
Total	75	10	11	20	11	5

imperative or question corresponding to T, and U' is an imperative or question corresponding to U.»

Here criteria of correspondence must be defined before the theorem acquires any moderately definite meaning. If criteria are such that the texts in questionnaires Qs1 No. 2.7, Qsi1 No. 1, and Qsq1 No. 1 are a set fulfilling the criteria of correspondence, the theorem is confirmed by table 5, provided the claim to validity is only a claim of rough regularity, let us say, «more than 80 percent regularity».

Questionnaires of Type Qs2

Questionnaires

Three pairs of Qs2 questionnaires were used. In each pair the crucial sentences T and U were substituted for each other. The two sentences used were:

«Not all numbers below 10 are divisible by 2 and 3.»

«Not all whole numbers below 10 are divisible by 2 and 3.»

Many respondents did not discover the difference in formulation at once but had to reread the sentences.

The three alternative answers—with abbreviations—were:

«Yes, in *all* situations.» Abbr.: a.

VIII. SYNONYMY QUESTIONNAIRES IN USE

«In *some* situations, not in all.» Abbr.: s.

«No, *not* in any situations.» Abbr.: n.

Qs2 Nos. 1 and 2 were formulated in accordance with the standard quoted in chapter 7 (see page 403 ff.). Confusion about these formulations among the respondents led us to prepare an additional instruction given as an appendix to the questionnaires. The questionnaires that included this instruction are called Qs2 Nos. 3 and 4. In the appendix it was stated at length that the questions did not relate to any situation or text in which *both* T and U occurred, but to a situation in which *either* T *or* U occurred.

Even with this additional instruction, some respondents seemed to misunderstand the question. The instruction was therefore again reformulated, the resulting questionnaires being called Qs2 Nos. 5 and 6.

In Nos. 1, 3, and 5, the expression «whole numbers» was used in U; in Nos. 2, 4, and 6, it was used in T.

Main Results

In table 6, which displays the results, the abbreviation «a» stands for a combination of two answers: the answer «all» to the first questionnaire presented, and the answer «all» to the second questionnaire. Abbreviations in the other column headings are analogous.

The answer «all» to both questionnaires is taken as an instance of full confirmation of symmetry of Qs2A-synonymy. The answer «some» to both questionnaires is taken as an instance of weak confirmation of the same. If, for example, a person distinguishes between two kinds of situations, the answer «some» to the first questionnaire might reflect his opinion that synonymy holds good in the first, but not in the second kind. The answer «some» to the second questionnaire might reflect his opinion that synonymy holds good in the second, but not in the first kind. Excluded by the answer «some» to both questionnaires are the disconfirmatory opinions «all» in relation to the first, and «none» or «some» in relation to the second, or vice versa. The uncertainty left in cases of «some» answers to both questionnaires justifies our taking the answers as confirmatory, but less strongly confirmatory than the straight answers «all». This also holds for «none» answers to both questionnaires. A theorem asserting asymmetry rules out such a combination. A theorem asserting symmetry does not exclude the combination. It is taken as weak confirmation.

VIII.3. Empirical Evidence of Symmetry of Synonymity Relations

Table 6. Symmetry of Qs2A-Synonymity Relations

Qs2 Nos.	aa	ss	nn	as	an	sa	sn	na	ns	Total	Confirmatory Instance	Dis- confirmatory Instance
1 & 2	2	11	7	0	0	4	3	0	1	28	20	8
3 & 4	6	6	1	1	0	1	0	1	0	16	13	3
5 & 6	6	22	11	2	0	1	1	0	2	45	39	6
Total	14	39	19	3	0	6	4	1	3	89	72	17

Table 6 shows a very high number of disconfirmations (8 out of 28) at the beginning of the investigations, then successive improvement with changes in the questionnaires (6 out of 45 at the end). However, even after two changes, disconfirmations make up more than 10 percent of the cases.

Questionnaires of Type Qsi3

Two pairs of questionnaires of the kind described on page 406, and called Qsi3 Nos. 1–4, were used. The «i» in «Qsi3» refers to the fact that T and U were imperatives:

«You shall not kill!»

«You shall under no circumstances kill!»

The first imperative was used as T in Qsi3 Nos. 1 and 3; the second, in Nos. 2 and 4.

The three alternative answers offered in Nos. 1 and 2 were listed as quoted on pages 461–62; in Nos. 3 and 4, the order of presentation was reversed:

«No, not in any situations.

In some situations, not in all.

Yes, in all situations.»

This variation in the order of presentation of alternatives was the only difference between the two pairs of questionnaires. The reasons for adopting such a modification are given in section 10, page 489.

VIII. SYNONYMITY QUESTIONNAIRES IN USE

Table 7. Symmetry of Qsi3A-Synonymity Relations

Qsi3 Nos.	aa	ss	nn	as	an	sa	sn	na	ns	Total	Confirmatory Instance	Dis- confirmatory Instance
1 & 2	8	41	2	0	0	3	3	0	0	57	51	6
3 & 4	11	24	9	0	0	0	2	1	0	47	44	3
Total	19	65	11	0	0	3	5	1	0	104	95	9

Main Results

The results are presented in table 7. Just as occurred in relation to Qs2, there is one case of «na» or «an», that is, of extreme asymmetry. In all, disconfirmatory cases make up somewhat less than 10 percent of the total.

Questionnaires of Type Qs4

Two pairs of questionnaires on indicative sentences were used, and a single questionnaire containing an imperative. One of them, Qs4 No. 1, is quoted here in full:

Text

Not all states are democracies. It is true that Norway is a democracy. It is not true that Spain is.

Instructions

This text was presented to you as an example of a text that contains the formulation «It is true that Norway is a democracy» (T).

What I should like to know is:

- 1a. Do you consider it a necessary condition for the truth of T that the following formulation is true: «It is perfectly certain that Norway is a democracy»?
- 1b. Do you consider it a sufficient condition?
- 2a. Do you consider it a necessary condition for the truth of T that the following formulation is true: «It is the case that Norway is a democracy»?
- 2b. Do you consider it a sufficient condition?

VIII.3. Empirical Evidence of Symmetry of Synonymity Relations

Qs4 No. 2 was made by substituting «It is perfectly certain» for «It is true» in T. In question 1 the expression «It is true» was used, and in question 2 «It is the case».

Questionnaires Qs4 Nos. 3 and 4 were strictly analogous to Nos. 1 and 2, but the texts were different. They were the same texts used for Qs1 Nos. 1 and 2.

The sentences T and U of Qsi4 No. 1 were the same as those of Qsi1 No. 1: «Follow those definitions!» and «Use those technical terms in accordance with the definitions!»

Because it was expected that the expressions «necessary condition» and «sufficient condition» would cause confusion, an appendix with definitions and examples was given to the respondents. Even with this precaution, many respondents with the ordinary qualifications complained about «difficulties», and «lack of clearness», and so on, and one-third of the answers were unclassifiable. The questionnaire was then mailed to a group of about sixty people known for their ability to answer difficult questionnaires or for having earned high marks in the preliminary examination in philosophy, logic, and psychology. Half of the members of what we shall call our «semantic panel» answered, and for the first time we got no unclassifiable answers.

Main Results

Table 8 shows the results obtained from the «semantic panel». Qs4-synonymity is defined in such a way that positive answers to parts a and b of a question in a pair of corresponding questionnaires can be classed as instances of full confirmation. As instances of disconfirmation we have taken the combination of positive answers to parts a and b in one questionnaire and a negative answer to one or both parts of the question in the other questionnaire. The distinction between weak confirmation and irrelevancy is somewhat complicated to trace in the case of Qs4. We have, therefore, in table 8 classed the weak confirmations as irrelevant.

The results of the two pairs of Qs4 questionnaires were highly satisfactory insofar as no cases of unclassifiable answers were obtained, and disconfirmations of symmetry accounted for less than 10 percent of the total.

The results of Qsi4 No. 1 were less favorable, perhaps in part because of the wording of the text sentences T and U. It was clear from interviews

VIII. SYNONYMY QUESTIONNAIRES IN USE

Table 8. Symmetry of Qs4A-Synonymy Relations

	Full Confirmation	Disconfirmation	Irrelevant	Unclassifiable	Total
Qs4 Nos. 1 & 2	22	1	8	0	31
Qs4 Nos. 3 & 4	24	2	5	0	31
Qsi4 Nos. 1.1 & 1.2	15	3	11	2	31
Total	61	6	24	2	93

with respondents that they found the application of the expressions «necessary» and «sufficient condition» doubtful or difficult.

VIII.4. Summary of Results

To test theorems of symmetry of synonymy relations as defined by questionnaire answers, we made use of thirty-three different questionnaires of types Qs1–Qs4. A total of 861 cases were obtained, of which 89 were unclassifiable or irrelevant. Of the remaining 772 cases, 714 (or 92 percent) gave confirmatory instances, and 58 (8 percent) gave disconfirmatory instances. The results are such that they warrant continued tentative use of a theorem that roughly may be stated as follows: QsxA-synonymy relations are empirically symmetrical.³

The figures mentioned above all relate to «synonymy» in terms of direct answers to the standard questionnaires; that is, they relate to QsxA-synonymy. If discussions and interviews are taken into consideration in order to fulfill the requirement of the QsxB-synonymy definitions, other figures are obtained. They are more favorable in relation to symmetry theorems.

VIII.5. Transitivity of Synonymy Relations: Questionnaire Concepts

In formal logic, a relation R is called «transitive» if xRz is implied by the conjunction of xRy and yRz . We need in this work a broader concept 'analytic or synthetic transitivity' or 'logical or empirical transitivity' that does not require that xRz follow with logical necessity from xRy and yRz . By asserting a theorem that a relation of synonymy is transitive, we shall in the

VIII.6. *Empirical Evidence of Transitivity of Synonymy Relations*

following not express anything more than that if $\text{Syn}(xy)$ and $\text{Syn}(yz)$, then $\text{Syn}(xz)$. The «if-then» connection—in this work left unprecized—may be empirical. It asserts something for all members of certain classes of individuals, but the question of whether the assertion holds good is an empirical, not a logical, question. As a matter of fact, we shall expect a certain number of disconfirmatory cases.

Similarly, «intransitivity» stands in what follows for a concept ‘analytic or synthetic intransitivity’. A Qsxy -synonymy relation is intransitive in this terminology if the following combination is found: $\text{Syn}(xy)$ and $\text{Syn}(yz)$ and $\neg\text{Syn}(xz)$.

Introduced in the manner of chapter 2, section 6, a relation of synonymy must *per definitionem* be transitive. On the other hand, the introduction of synonymy concepts on the basis of the questionnaires described in chapter 7 does not make synonymy relations transitive by logical necessity. It is a question of empirical investigation to find out to what extent, if any, there are regularities such that one may from $\text{Syn}(xy)$ and $\text{Syn}(zy)$ expect $\text{Syn}(xz)$.

Tentatively, we adopt a series of theorems to the effect that synonymy relations as defined by the previously introduced questionnaires and interviews are transitive. For each questionnaire there will be two separate theorems of transitivity: one uses criterion A for assigning confirmation or disconfirmation values to answers, and the other uses criterion B. The conjunction of these theorems may be stated roughly as: QsxA -synonymy relations are empirically transitive.

No transitivity theorems are asserted concerning the relation of synonymic alternatives. Only occasionally will it turn out that $\text{Synalt}(xz)$ holds good when one has found $\text{Synalt}(xy)$ and $\text{Synalt}(yz)$ to hold good. The reason for the lack of transitivity of this relation is easily seen from the definition of it by means of the synonymy relation (cf. also chapter 2, section 6).

VIII.6. **Empirical Evidence of Transitivity of Synonymy Relations Defined by Questionnaires**

In all, six trios of QsI questionnaires were used to test transitivity of synonymy relations. They are all questionnaires described in previous sections:

VIII. SYNONYMITY QUESTIONNAIRES IN USE

Nos. 0.2, 0.3, 0.6
 Nos. 1.2, 1.3, 1.6
 Nos. 2.2, 2.3, 2.6

Nos. 1.1, 1.4, 1.5
 Nos. 2.1, 2.4, 2.5
 Nos. 2.1, 2.3, 2.4

Each trio of questionnaires contains three pairs of crucial expressions, (x,y), (y,z), and (x,z). The expressions used, it will be remembered, are «it is true», «it is perfectly certain», and «it is the case». For each questionnaire and each person who answers, an instance of QsIA-synonymity or lack of synonymity is recorded.

As full-weight confirmatory instances of a theorem of transitivity, we class the following kinds of results (for the sake of brevity, we have left out the symbols for person and situation):

Syn(ab) & Syn(bc) & Syn(ac)
 Syn(ba) & Syn(bc) & Syn(ac)
 Syn(ab) & Syn(cb) & Syn(ac)
 Syn(ab) & Syn(bc) & Syn(ca)
 Syn(ba) & Syn(cb) & Syn(ac)
 Syn(ba) & Syn(bc) & Syn(ca)
 Syn(ab) & Syn(cb) & Syn(ca)
 Syn(ba) & Syn(cb) & Syn(ca)

As disconfirmations with full weight, we class results that can be formulated as above except for a negation of either the third or the second or the first relation:

-Syn(ab) & Syn(bc) & Syn(ac)
 Syn(ab) & -Syn(bc) & Syn(ac)
 — — —
 Syn(ba) & Syn(cb) & -Syn(ca)

As confirmations with less than full weight, we class the following kinds of answers, which are characterized by two negations and one affirmation of synonymity:

VIII.6. *Empirical Evidence of Transitivity of Synonymy Relations*

Table 9. Transitivity of Qs1- and Qs4-Synonymy Relations

	Full Confirmation	Partial Confirmation	Dis- confirmation	Irrelevant	Unclassifiable	Total
Qs1	243	37	11	8	64	363
Qs4	44	7*	3*	8*	0	62
Total	287	44	14	16	64	425

Syn(ab) & -Syn(bc) & -Syn(ac)
 -Syn(ab) & Syn(bc) & -Syn(ac)
 etc.

As irrelevant reports, we class answers characterized by three negations of synonymy:

Syn(ab) & -Syn(bc) & -Syn(ac)
 -Syn(ba) & -Syn(bc) & -Syn(ac)
 etc.

In addition to the Qs1 questionnaires, two pairs of questionnaires of type Qs4 were used, Nos. 1 and 2, and Nos. 3 and 4, each with two synonymy questions. They are described in section 3, on page 454ff. The expressions that were varied are the same as in Qs1, and the combinations of answers are as described above for that questionnaire.

The results from Qs1 and Qs4 are tabulated in table 9.

Cases of asymmetry of synonymy produce a complication in the transitivity material. For example, if a person declares (indirectly) that «true» and «perfectly certain» are synonymous, but not «perfectly certain» and «true», transitivity can be tested on the basis of the first *or* the second report. Occasionally, the difference will have an effect on whether confirmation or disconfirmation of transitivity is found.

The three figures marked with an asterisk in table 9 (7, 3, and 8) represent transitivity calculated with the Qs4 questionnaire when we used the expression «true» in its text and «perfectly certain» in its substitution question. When we used the questionnaire with «perfectly certain» in the

VIII. SYNONYMY QUESTIONNAIRES IN USE

text and «true» in the question (which gives the trios Qs4 Nos. 1.2, 2.1, 2.2 and Nos. 3.2, 4.1, 4.2), the corresponding figures were 8, 4, and 6.

This kind of complication also exists in the material obtained with the use of Qs1. There are possible combinations other than the six trios listed at the beginning of this section. Because the results would not have been significantly different from those presented in table 9, these complications have not been alluded to in that table.

In all, 425 cases were considered, of which 80 were unclassifiable or irrelevant. Out of the remaining 345, there were 331 confirmatory and 14 disconfirmatory instances.

The percentage of confirmations out of the total number of confirmations and disconfirmations is 96. This high percentage justifies the continued tentative use of the transitivity theorems of Qsxy-synonymy.

VIII.7. Interviews Used to Study Previously Given Answers

It takes from a few minutes to several hours for a respondent to answer a set of questionnaires. The question arises, If respondents take more time, does this lead them to modify their answers? Which modifications are likely?

The interviews to be described were motivated by a desire to make the respondents reconsider their answers in order to find out whether the answers adequately expressed their opinions, provided the persons can be said to have had opinions.

Because of limitations of time and resources, not all respondents were asked to review their answers. If some questions were left unanswered or if answers were detected at once as unclassifiables, an appeal to look once more was made. In some groups of respondents, all who gave disconfirmatory answers were asked to reconsider.

The methodological dangers of such checks are obvious: there is always the risk that respondents will be led by suggestibility or social pressure to modify answers in the direction they suspect is desired by the test leader. This they may do, not only to conform to what they think is expected from them, but also because they may escape further work by answering in such a manner. Interview techniques in general are beset by difficulties caused by irrelevant influences radiating from the test leaders, and it is scarcely

practicable to avoid such influences in our tests. What can be done is to test and map out the influences and correct results of questionnaire methods on the basis of our knowledge about those influences.

In the present case, our main, rather limited, objective was to find out what kinds of considerations, if any, were made by respondents who gave answers of the patterns classed as disconfirmations.

The approach of the test leader was as follows:

The respondent would first be assured that there was no mistake in his work, there being no reason to speak of errors, insofar as what was asked for was only how he interpreted certain words or sentences. We had no interest in finding out which were the so-called «correct» interpretations or answers.

The analyst would then go on to explain that answers of various kinds are more or less frequent, and that the respondent's answers fell into those that are infrequent. He would then ask, «Could you please reconsider them, just to be sure that what you have written expresses your opinion?»

Some respondents received the Qs4 and Qsi4 questionnaires by mail. Those whose answers gave negative symmetry or transitivity received a follow-up letter that read:

In the spring of 1951 you were kind enough to answer a questionnaire concerning your use of certain expressions. Questions of this kind are in principle not capable of being answered «right» or «wrong», and there will always be large variations among different people. Certain answers, or rather certain combinations of answers, were, however, so infrequent that in order to be quite sure, I wish to ask you if you would have given the same answer if you were asked today.

I enclose parts of your answers to the questionnaire and hope you have time and patience enough to look it through once more.

In reconsidering his answers, the respondent often asks questions about how the questionnaires are to be understood, what they ask for, and so on. The test leader answers, and may thus bring the interpretation of the respondent nearer to that of the analyst—a process that well might be effectively done by reformulation of the questionnaires.

Generally, the respondent will suddenly say that he has made a blunder: he was not careful enough; or he did not interpret the questionnaire as did the test leader, and thought that T was occurring and then U, and both on the same occasion; and so on. The disconfirmatory pattern is changed

VIII. SYNONYMITY QUESTIONNAIRES IN USE

into a confirmatory (or irrelevant) one without further intervention by the test leader.

In some cases, a respondent discovers that he wrote something he did not mean, or that his formulations are obscure or misleading at certain points and require changes. In the case of Qs4, the expressions «necessary» and «sufficient» condition sometimes gave rise to discussions with the test leader.

In only one case did a respondent feel no need to change anything, exclaiming that «there *must* be a difference» such that $\text{Syn}(T,U)$ but $\neg\text{Syn}(U,T)$. He was disinclined to indulge in time-consuming reconsiderations.

The «reconsideration interviews» resulted in all disconfirmatory cases being eliminated from answers to the (indirect) symmetry questions of the following pairs of questionnaires:

Qsi1	Nos. 1 and 2	10 cases
Qsq1	Nos. 1 and 2	3 cases
Qs2	Nos. 3 and 4	6 cases
Qs3	Nos. 1 and 2	9 cases
Qs4	Nos. 3 and 4	1 case
Qsi4	Nos. 1 and 2	3 cases

In Qs1 Nos. 2.7 and 2.8, one person (mentioned above) did not change his formulations, with the result that of four cases of disconfirmation, only three were eliminated.

In Qs4 Nos. 3 and 4, one person to whom the questionnaire was mailed for reconsideration lost the questionnaire. He filled out another copy. This time the answers were different, but still disconfirmatory, and he refused to spend any more time on it.

Disconfirmatory cases of transitivity, four in all, were eliminated from answers to Qs1 Nos. 2.1, 2.4, and 2.5; Qs4 Nos. 1 and 2; and Qs4 Nos. 3 and 4. No cases of persistence were found. Of the disconfirmatory cases of subsumption theorems (nine cases) related to Qs4, only seven were eliminated; the two remaining cases belong to the above-mentioned respondent who lost the questionnaire.

The same follow-up letter was sent to the persons giving disconfirmatory answers to Qs4 and Qsi4. They all changed their answers, giving now the answer «Yes» to all questions, and therefore there were no disconfirmations.

Nothing prevents the interview technique just described from being codified and added to the Qs questionnaires. Fairly large and complicated

questionnaires would be the result of such an integration. By means of such questionnaires, concepts of synonymy could be introduced that could be defined by reference only to direct answers and that would yield very few disconfirmations to the symmetry and transitivity theorems.

It is in no way suggested, however, that it is practicable to avoid all misunderstandings and blunders; and in the last resort, the analyst's conviction that all cases of disconfirmatory answers are based on misunderstanding or inconsistency or blunders of formulation, may be false. So far, however, no disconfirmatory answers have been found to contain reference to arguments that we deem convincing. That is, the answers do not seem to yield adequate information about usage and interpretation patterns of designations, declarative sentences, questions, or imperatives that are inconsistent with symmetry theorems asserting symmetry of occurrence synonymy.

VIII.8. Empirical Evidence from Metaquestionnaires

If a set of expressions from a Qsxy questionnaire other than its crucial ones are used as crucial expressions in a second Qsxy questionnaire, the latter is called a Qsxy metaquestionnaire in relation to the former.

Questionnaire MetaQs1I

The first metaquestionnaire, here called MetaQs1I or MetaI, answered by only a small number of people, has a rather complicated text that makes it understandable only to people already familiar with semantical questionnaires. It consists of three parts.

Part one is identical with Qs1 No. 2.1, concerning synonymy of «true» and «perfectly certain», except that the sign «U₁» is used instead of «U», and the answers offered to respondents are indicated thus:

«Answer 1: Yes. No. Don't know. (Erase what does not suit you.)»

Part two is closely related to Qs1 No. 2.6, concerning «is true» and «is the case», except that the sign «U₂» is used instead of «U», and the alternative answers are indicated as above stated.

Thus, the first two parts of MetaQs1I are merely a combination of two ordinary Qs1 questionnaires. (These parts were referred to collectively as Qs1, I, No. 1 in the material given to respondents.)

VIII. SYNONYMITY QUESTIONNAIRES IN USE

Part three reads as follows:

You have now answered the questionnaire QsI, I, No. 1. We wish to find out whether it has been formulated adequately. Our doubt regarding adequacy concerns in the first place our formulation of the questions, for example, the question:

«Would U_1 (or U_2) have expressed the same assertion to you as did T when you read T?»

On page 4 you will find a series of interpretations of the question formulation (let us call it S_0). For the sake of easy survey, we suppose the interpretations to have emerged by interpreting four parts of S_0 , namely a_0 , b_0 , c_0 , and d_0 :

a_0	—	would U have expressed --- assertion
b_0	—	the same
c_0	—	to you
d_0	—	as did T when you read T

Suppose that in the questionnaire QsI, I, No. 1 instead of S_0 , you had found a question formulation in which each of the parts [of S_0] were replaced with various interpretations mentioned on page 4 (a_1 – a_4 , b_1 – b_3 , c_1 – c_5 , d_1).

Imagine that only one of the parts of the sentence was exchanged with another, or also two, three, or four, in such a way that all combinations of interpretations of the parts occurred. We are, however, interested only in combinations that make good sense. For example, it scarcely makes good sense to place together a_3 , b_0 , c_4 , and d_0 . In that case, this sentence emerges: «Does U according to customary usage mean the same as T did when you read T?» On the other hand, it makes good sense to combine a_3 , b_0 , c_4 , and d_1 : «Does U according to customary usage mean the same as T?»

Then three questions are put:

Question a: For which combinations of interpretations (if for any) would you have given a different answer than you actually gave under «Answer 1»?

Question b: For which combinations (if for any) would you have given a different answer from that you actually gave under «Answer 2»?

Question c: Which combinations, if any, would not have expressed the same question to you as did S_0 when you read S_0 ?

Question a refers to answers to QsI No. 2.1 in part one of MetaQsII, and question b refers to QsI No. 2.6 in part two of MetaQsII. At the end of MetaQsII («page 4») is found the list of interpretations.

VIII.8. *Empirical Evidence from Metaquestionnaires*

a ₀	would U have expressed --- assertion
a ₁	would U have expressed the
a ₂	would U have meant the
a ₃	does U mean the
a ₄	could U have expressed --- assertion
b ₀	same
b ₁	absolutely the same
b ₂	roughly the same
b ₃	fairly accurately the same
c ₀	to you
c ₁	(nothing)
c ₂	as you understood U
c ₃	as you understood U when abstracting from things you possibly have figured out after having looked into this scheme
c ₄	according to customary usage
c ₅	according to philosophic usage
d ₀	as did T when you read T
d ₁	as T

This list of combination units was followed by a list of examples. Some of the examples are here quoted because our statistics relate to the individual items of the list.

a₀b₀c₃d₀: Would U, as you understood U when abstracting from things you possibly have figured out after having looked into this scheme, have expressed the same assertion as did T when you read T?

a₃b₀c₁d₁: Does U mean the same as T?

a₀b₀c₄d₁: Would U, according to customary usage, have expressed the same assertion as T?

In the list of examples, seven more combinations were given:

a ₀ b ₃ c ₀ d ₀	a ₃ b ₀ c ₅ d ₀	a ₄ b ₀ c ₀ d ₀	a ₀ b ₀ c ₁ d ₁
a ₀ b ₂ c ₀ d ₀	a ₂ b ₀ c ₀ d ₀	a ₃ b ₀ c ₄ d ₁	

VIII. SYNONYMY QUESTIONNAIRES IN USE

It was, of course, not expected that the respondents would report in detail on all 240 combination possibilities. On the basis of previous experience, it was expected that most respondents would at once discard a number of possibilities because they would not lead to a difference in the cognitive contents of the synonymy question, or at least would not lead to different answers.

Main Results

Thirty people gave complete answers. Of these thirty respondents, twenty-nine agreed that if the synonymy question «Would U_1 have expressed the same assertion to you as did T when you read T?» had been replaced by $a_0b_0c_1d_1$, that is, by «Would U have expressed the same assertion as T?» this would not have made them answer differently than they did. In relation to $a_3b_0c_4d_1$, «Does U mean the same as T according to customary usage?», only two changes in answers were recorded. This supports the hypothesis that it makes little difference to respondents whether one asks them about ordinary usage or their own usage.

Also, for $a_0b_0c_3d_0$, only one instance of difference in answer was recorded, but in this case in relation both to the substitution «is true» — «is perfectly certain» and the substitution «is true» — «is the case». The other exemplified combinations were reported by more than one person to cause changes in their answers.

On average, 4.6 persons reported an inclination to change answers if the synonymy question in part one (concerning «true» — «perfectly certain») was changed in the eleven directions exemplified at the end of MetaQsI. The analogous average with regard to part two (concerning «true» — «is the case») was 3.8 persons. Thus, the percentage change in answers attributed to the eleven reformulations was found to be 14.0. The change in formulation that would cause the greatest number of changes in answers by far—according to the respondents—was $a_3b_0c_5d_0$, which included the term «philosophic usage». If that example of change had been left out, the percentage change in answers would have been reduced to 10.8.

Inspection of the kinds of reformulations exemplified at the end of MetaQsI suggests that synonymy question formulations may be modified within wide limits without appreciable changes in answers. *Answers are largely invariant to a great number of modifications.*

The importance of this conclusion lies partly therein, that it warns against using answers as if they were highly specific to a particular interpretation of the question posed, for example, in relation to interpretations that the analyst from general considerations expects to indicate «how the respondents interpret the question».

On the other hand, an assertion that one would answer affirmatively (or negatively) to two question formulations does not furnish much evidence that the formulations were interpreted to have exactly the same meaning. The long series of modifications of question formulations without corresponding changes in answer may be taken to furnish *some* evidence supporting the hypothesis that the formulations were interpreted as questions with only slight differences in meaning.

Questionnaire MetaQsII

MetaQsI asked respondents to consider vast numbers of sets of modifications of the synonymity question—a procedure that invites serious objections on humanitarian grounds. It may also be objected that perhaps some of the respondents did not understand the technique of substitution or that their answers were not based on close inspection of more than a portion of the combinations. It is difficult to check whether respondents have taken their job sufficiently seriously. (The questionnaire MetaQsI was given only to students who were judged to be both conscientious and gifted.)

A new questionnaire, MetaQsII, was designed to make the procedure easier for respondents. Rather than ask them to consider the eleven examples of modifications of the original synonymity question, we used twelve independent questionnaires, in each of which one modification of the original version was formulated in detail. The whole series of twelve—very similar—questionnaires was called MetaQsII. The complicated list of combination possibilities of MetaQsI was left out.

Thirty people went through this set of questionnaires.

Main Results

To what extent do the respondents' answers vary with modification in the formulation of the synonymity question?

The number of respondents who changed their answers when the syn-

VIII. SYNONYMY QUESTIONNAIRES IN USE

onymity question changed was greater than in the case of MetaI. On average, 10.7 persons changed their answers when the synonymity question in part one (concerning «true»—«perfectly certain») was changed in the eleven directions. The corresponding number for part two (concerning «true»—«is the case») was 8.3. The percentage change in answers was 31.7. If the synonymity question including the term «philosophic usage» had been left out, the percentage would have been 26.7.

A Differential Procedure

The technique of asking people how they would react under certain nonexisting conditions has obvious weaknesses from a methodological point of view. To find out a little about the influence of these weaknesses, we constructed a test in which each modification of a questionnaire was handed over to separate groups of people.

Ten of the twelve questionnaires of MetaQsIII were distributed, each to 30 people. No person received two or more questionnaires. Thus, 300 people were involved.

All questionnaires of the group of ten were exactly alike except for the variation in synonymity question. We used the same synonymity questions that were used in the MetaQsII questionnaires, except for the question containing the term «philosophic usage» and one of the questions containing the term «common usage».

Our main interest in what may be called «the differential procedure» is in comparing the results with the results of MetaI and MetaII. We shall, therefore, abstain from discussing the results of this procedure in isolation and proceed to a general comparison.

Comparison of Results of MetaI, MetaII, and the Differential Procedure

This comparison is not without complications, and a fairly complete table is therefore needed. In the second column of table 10, we have given abbreviated versions of the synonymity questions. They can be assembled in their complete form from the combinations indicated on page 473ff. Synonymity question No. 1 is the «standard» used in QsI and in the first two parts of MetaQsI.

From the third column onward, the table is divided into two main

parts, the first related to synonymy questions concerning the pair of expressions «true» — «perfectly certain» and the other to the corresponding pair «true» — «is the case».

The division of each of these main parts into three subparts corresponds to the three procedures. The columns report numbers of changes of answer—with the answers to No. 1, the standard form of synonymy questions, being taken as the point of departure.

Two quantities are calculated to give a picture of changes: one is recorded under «≠» with a «d» added and gives simply the difference between the number of «Yes» answers to synonymy question No. 1 and the number of «Yes» answers to No. 1, plus the difference between the corresponding numbers of «No» answers, plus the corresponding numbers of «I do not know» answers. These sums are not directly comparable to the numbers found as results of the MetaI questionnaire. If, for example, twenty-two people answer «Yes» and eleven answer «No» to both synonymy question No. 1 and synonymy question No. 2, this does not imply that every person has answered the same to those questions. Maybe those eleven who answered «No» to No. 2 answered «Yes» to No. 1, but at the same time eleven of those who answered «Yes» to No. 1 answered «No» to No. 2. This means that twenty-two persons have changed their answers, but without effect on the sums reported under «d». On the other hand, if only one person changes an answer from «Yes» to «No», this results in a difference of two in the sum of differences (≠d column), there being one less «Yes» answer, and one more «No» answer. The number of persons making changes is therefore reported under «≠p» and separated from the number of changes reported under «≠d». (The material obtained with the use of MetaI does not permit us to determine the quantity «≠d»; and from the material obtained by the differential procedure, we cannot determine «≠P».)

One of the easiest things to account for is the smaller number of respondents changing answers and the smaller number of changes in relation to the expression pair «true» — «is the case». All questionnaires used have consistently pointed to a closer similarity of meaning between «true» and «is the case», and more people taking them as synonymous, than that between «true» and «perfectly certain». The higher and more strongly held «Yes» scores of «true» — «is the case» account for many differences be-

Table 10. Comparison of Meta-results

No.	Synonymy Question	«true»—«perfectly certain»						«true»—«is the case»					
		Metal			MetalII			Metal			MetalII		
		# P	# P	# d	# P	# P	# d	# P	# P	# d	# P	# P	# d
1	— have expressed the same assertion to you —	—	—	—	—	—	—	—	—	—	—	—	—
2	— as you interpreted U, if we neglect —	1	7	7	12	12	4	1	4	5	4	4	4
3	Does U mean the same as T?	5	13	16	6	6	8	4	9	14	8	8	8
4	— expressed according to customary usage —	3	7	11	2	2	4	2	4	4	2	4	2
5	— expressed fairly accurately the same —	5	8	2	6	6	8	2	7	4	8	8	8
6	Could U have expressed the same assertion to you —	4	8	12	4	4	8	2	3	5	8	8	8
7	Would U have expressed absolutely the same —	7	11	14	12	12	13	8	13	23	2	2	2
8	Would U have expressed the same assertion as T?	1	13	12	4	4	7	2	7	12	6	6	6
9	— approximately the same assertion to you —	6	11	9	8	8	7	2	7	2	4	4	4
10	— meant the same to you	3	5	0	6	6	4	3	4	4	6	6	6
Total		35	83	83	60	60	58	26	58	73	48	48	48

tween results relating to «true»—«is the case» and «true»—«perfectly certain».⁴

The main and most important result is that fewer people say they would change answers than actually change answers: more than twice as many respondents answer otherwise than they actually do to synonymity question No. 1 than declare that they *would* if certain changes were made.

If, now, this comparison between MetaI and MetaII is related to the results of the differential procedure, it is found that the last-mentioned results lie somewhere in the middle between MetaI and MetaII.

Taken at face value, the comparison shows, roughly, that people asked whether they would have given other answers *if* a certain nonexistent condition were realized, *underestimate* the extent to which their answers actually would have changed. Further, people placed in a situation somehow approximating that nonexistent condition and involving answering a number of questionnaires with very small differences in text, tend to react with different answers to these differences more often than under the condition in which they cannot compare closely similar texts.

An «oversensitiveness» to differences presented as they were by MetaII seems simple to explain: each of the small differences in synonymity questions stood out in relief against the backdrop of identical contexts. In MetaI, however, the identity of context was carefully explained to the respondents, yet there was a comparative «insensitiveness» to the differences. It is not so easy to account for the great difference in answers to MetaI and MetaII. If MetaII led to oversensitiveness, why did not MetaI do the same?

One factor that may have played a considerable role was the impressiveness of the effort made in the MetaII procedure to fix the respondent's attention on every single variety of synonymity question. Each variety had its own slip of paper, its own questionnaire. Maybe the respondents were induced to think, «If it is worthwhile to print questionnaires that are identical except for a very small number of words, these must have rather different meanings!» Of course, nothing like this was suggested by the test leader, but nevertheless respondents may have felt an urge to differentiate clearly in their reactions to the different sheets of paper. The questionnaire MetaI consisted of much less paper and was more condensed. This may have given the respondents less motivation to proceed carefully and to react differently to different questions.

VIII. SYNONYMITY QUESTIONNAIRES IN USE

Whatever reasons are considered plausible, the result remains that differences in procedure—exemplified by MetaI and MetaII, and the differential procedure—may yield considerably different answers.

VIII.9. Difficulties of Questionnaire Procedures

In this section, we discuss some of the obstacles that endanger the fruitfulness of the «method of synonymities» (chapter 1, page 14ff.). They are so grave that it is quite natural to think that further use of the method must be viewed as unwarranted from the point of view of scientific method. Our conclusion will be, however, that continued use is warranted, partly because the method has yielded some results of interest and can be perfected, and partly because experience with other methods has convinced us of the very considerable difficulties encountered, whatever avenue of attack is chosen.

General Considerations

The first problem to be considered may be stated as follows: The persons used as test subjects presumably have greater than average intelligence, but they nevertheless succumb to *inconsistencies* in their answers. This may lead to replies being classed as disconfirmations of theorems of QsxA-symmetry or -transitivity.

An interesting example of such a case is the reply of respondent 5 to Qs11 and Qs12. He there entertains the opinion that «it is true» is a statement the validity of which depends on the kind of information available to those who use the expression. Thus, at the time of Holberg (an eighteenth-century Danish-Norwegian author), it was in many cases true that the earth was flat, since the information those persons had, who might have said «it is true that the earth is flat», was of a kind making it justifiable to assert the flatness. Many philosophers and logicians would at once object to the possibility or probability that the respondent «really» uses the expression «true» in this way. I think such an objection a priori is unwarranted, but let us see how this opinion on the part of the respondent influences his further reply.

He says that he uses «it is perfectly certain» independently of the kind of information. Then he infers that from the perfect certainty of some-

thing, the truth can be inferred, but not vice versa. This, he thinks, is the reason that he would interpret the sentence in the text Qs1 No. 2.1 («It is true that ---») to express a different assertion from «It is perfectly certain that ---». He answers «No» to both Qs1 No. 1.1 and Qs1 No. 1.2, but to Qs1 Nos. 1.2 and 2.2 he answers «Yes» (thus creating an instance of disconfirmation of Qs1.9-symmetry). He explains that he so does because *if* something is perfectly certain, *then* it is true.

It was assumed that respondent 5 had (vague) ideas of identity of assertions with which the last-mentioned inference could not possibly be consistent, and subsequent interviews confirmed this. His total reply was therefore not taken as a disconfirmation of Qs1B-symmetry theorems.

The kind of inconsistency to which respondent 5 succumbed may be roughly formulated thus: sometimes it is taken as a sufficient criterion of x being synonymous with y, that if y is true then also x is true; sometimes the same relation is only taken as a necessary condition.

The case of respondent 5 has been reported to stress that respondents certainly are sometimes inconsistent, but that the analyst cannot without very close analysis hope to be able in all cases to distinguish peculiar but consistent replies from inconsistent ones. Analysts tend to overestimate the frequency of inconsistencies. There are more usages under the sun than is suspected by learned men.

The case of respondent 5 also reveals how inferences of a general and highly speculative nature enter into the seemingly easy question about how a person interprets a text he has read, let us say, at most, thirty seconds earlier. Some respondents may be expected to try to arrive at the exact interpretation by taking up the much more general question of how they interpret a certain expression no matter what text it occurs in. In this respect, some of the respondents resemble logicians and philosophers when they answer questions about how they interpret and use the word «true».

Not only factors such as «insufficient» intelligence or general education, limited time and energy, and lack of special knowledge about the theory of knowledge, logic, linguistics, and semantics are to be held responsible for unclear and doubtful answers, but also the nature of the questions asked: nobody today seems to have a theory of interpretation and tools for finding interpretations that would make their answers to Qs1 acquire the status of fairly precise, reliable knowledge. This holds good even more con-

VIII. SYNONYMY QUESTIONNAIRES IN USE

vincingly as regards Qs2 and Qs3. There is, of course, some difference of degree, but basically the students and the specialists in logic and related fields are on the same level.

Difficulties of Qs1

A second problem is that the choice of variable expressions in Qs1—«true», «perfectly certain», «the case»—makes that questionnaire somewhat difficult to answer. Even well-educated generalists have rather vague ideas about the relation «T and U express the same relation». This makes many uncertain as to what to answer; they may find «Yes» and «No» equally justifiable answers. To this are added the particular difficulties, already mentioned, of complex differences in the usage of «true» and «perfectly certain». Out of sheer uncertainty, a respondent may answer «Yes» and «No» in such a way that transitivity of synonymy is denied. The respondents are «inconsistent» in their choice of «Yes» and «No» answers because both answers seem equally justified.

Instead of speaking about inconsistencies, one might in this situation just as well speak of absence of opinions, and define in such a way that a certain degree of stability is required. If the marginal reference, «s», of synonymy relations $\text{Syn}(\text{abps})$ is a reference to a small time interval, let us say, one minute, there would be no inconsistencies because $\text{Syn}(\text{abp}_1\text{s}_1)$ would not contradict $\neg\text{Syn}(\text{abp}_1\text{s}_2)$. Answers given several minutes apart would be referred to synonymy hypotheses with different marginal references.

If the respondents are led to adopt definite criteria of synonymy, some of the difficulties vanish, of course, but in the case of Qs1, this would defeat one of the purposes of the questionnaire: to explore how the term «express the same assertion» is used.

Even in the case of no concept of synonymy being forced on the respondent, the symmetry and transitivity relations of their answers are confirmed, as we have seen (tables 3–7).

Let us glance at the details of a group of twenty-eight replies to the sequence of questionnaires Qs1 Nos. 1.1, 1.2, 2.1, 2.3, 1.4, 1.5, 2.4, 2.5. They all concern Qs1A-synonymy relations between «true», «perfectly certain», and «the case», as described on page 455ff.

Sixteen replies contain only «Yes» as answers to the eight questions.

There is, of course, not much to be learned from such short replies, but we take them as a symptom of symmetry and transitivity of those respondents' (perhaps very vaguely conceived) concept of identity of meaning. We also take the answers as symptoms of how, in a particular situation, those respondents would interpret the expressions and sentences referred to in the synonymity questions.

Six replies contain «Yes» and some comments. Some of the comments belong to kinds that are of general interest. Thus, in the answer «Yes, but ---», is «but» meant to indicate a modified, conditioned answer, an answer with a reservation that makes the reply *strictly to the question asked* a different one from plain «yes»? Or is «but» here only meant to indicate some kind of phenomenon that makes a sort of contrast to the state of affairs affirmed unconditionally by «yes»? Interviews revealed that the second alternative usually holds good, but in some cases, the «Yes, but ---» is meant as a reply different from «Yes. But ---». Some cases are borderline cases.

Three of the respondents with «Yes, but ---» answers said that «perfectly certain» is stronger than «true». Asked to make more precise what kind of strength is referred to, they adopted various directions of precization, some leading to the conclusion that «perfectly certain» and «true» express different assertions, some leading to the conclusion that they express the same assertions.

Two of the respondents with «Yes, but ---» answers stressed that the use of «it is true that ---» is dependent on previously expressed doubt. It is a sort of reaffirmation or affirmation in the face of denials. Interviews showed that the «Yes, but ---» was to be interpreted as «Yes. But ---», not as «Yes, but ---». The answers were taken as a symptom that if those respondents had been invited to use proposed criteria, their answer would have been «Yes. But ---». It is of interest to note, however, that the possibility of «Yes, but ---» is not to be excluded a priori: to some people «it is true that ---» as occurring in the questionnaire might mean «it is doubted, yet true that ---».

The other (qualified) positive answer contains only «without doubt» as a comment.

The «Yes, but ---» difficulty can largely be avoided by supplying detailed instructions about how to separate «Yes, but» from «Yes. But». Such

VIII. SYNONYMITY QUESTIONNAIRES IN USE

instructions cannot but be complicated, however, and may annoy some respondents. The possibility of suggestion must also be taken seriously into account.

Let us leave the «Yes, but ---» complication and inspect the comments made in replies, whether positive or negative.

Of the four persons saying that «perfectly certain» is *stronger* than «true», two gave the already mentioned «Yes, but ---» kind of answer, whereas two answered «No». By subsequent interviews it was established that «stronger than» to some means «having stronger power of persuasion», and this makes the «stronger than» seem irrelevant if our criteria are adopted. In relation to other criteria of identity of meaning of assertions, the persuasive power may of course be relevant. To others, «it is perfectly certain» implies that it is «shown» («proved») to be so, something not implied by «it is true that». This interpretation of «stronger than» seems in at least one case to explain the answer «No, «perfectly certain» is stronger ---».

The most important thing to note in connection with the distinction between 'stronger than' interpreted in such a way that it is relevant to our criteria and interpreted so as to make it irrelevant, is, I think, the complexity of unsolved and even unaddressed questions raised by the respondent when struggling with borderline cases. Of these there are so many that the replies in terms of the distinction «express same assertion versus express different assertions» lose much of their value. There is nothing that suggests that the replies of specialists in semantics (including lexicographers and semanticists in the sense of Carnap-Morris) would be much easier to evaluate.

A third group of difficult comments are those in which it is asserted that one of the three expressions (roughly: true, certain, the case) is *more precise than* the others. Different concepts of «preciseness» are involved, some making the assertions of relations of more or less preciseness relevant to our criteria of identity of meaning, others making them irrelevant.

Concluding, we may say that there are three main special difficulties confronting those who try to classify replies to the synonymity questionnaires Qs1 Nos. 1.1–1.6, and Nos. 2.1–2.6 into positive and negative:

1. the «Yes, but ---» answers,
2. the «x is a stronger expression than y» answers, and
3. the «x is more precise than y» answers.

By means of extra instructions, subsequent interviews, and «metaquestionnaires», the special difficulties have been overcome in most cases, leaving from 3 percent to 6 percent of cases in which classification into positive or negative has been persistently uncertain.

Not all those uncertain cases affect classification of replies into confirming and disconfirming ones of the A-variety. If it is doubtful whether the reply to a pair of questions «Syn(ab)?» and «Syn(ba)?» is positive or negative, we can in most cases say, «If the reply to the first question is interpreted to be positive (or negative), the hypotheses of interpretation used lead to the same conclusion with respect to the second question». Thus, the uncertainty does not lead necessarily to doubtful classification of symmetry confirmations.

Difficulties of Qs2

A third problem affecting the fruitfulness of the «method of synonymities» is that the replies to Qs2 clearly show a source of misunderstanding of synonymity questions that not only seriously lowers the value of the replies to Qs2, but may be reckoned as one of the chief sources of superficial answers to questions of interpretation, whether in the form of questionnaires or otherwise.

Just as in the case of Qs1, the respondent to Qs2 is invited to interpret a text containing T, then to imagine that he has *not* read that text, but one in which U occurs instead of T. The question posed concerns the relation of the interpretation of T and U under the assumption, of course, that there is not one text containing both T and U. It is essential that the respondent not interpret U in the light of T, and vice versa, but independently of each other. Alas, that is exceedingly difficult to explain to most people.

Unhappily, Qs2 opens with T and U appearing close to each other in print. It is inevitable that respondents concentrate their attention on the difference between them, and it turns out that after having seen the sentences close together, many respondents can no longer think about them separated from each other. Additional instructions (see page 404) that explicitly mentioned the source of confusion and warned against it in strong terms, did not always succeed in making respondents avoid the pitfall.

The effect of this confusion concerning contexts, the «natural context»

VIII. SYNONYMY QUESTIONNAIRES IN USE

and the «analyst's context», is dramatically illustrated by the following example.

Suppose we ask some students about the meaning of «year 1949 B.C.» and «year A.D. 1949». Most will answer that the first expression connotes a definite year before Christ and the second a definite year after Christ. If it is then asked what the expression «year 1949» connotes, the previous questions will make some of them answer that it has no definite meaning, because of the scale before or after Christ; the Jewish or Mohammedan scale might even be meant. Some might say that it has a definite meaning, namely «year 1949 after some year or other conceived as year 1». Thus, it might be a class name.

Now, after all this discussion of calenders, we introduce T and U:

T: There was at least one eclipse of the moon in 1949.

U: There was at least one eclipse of the moon in A.D. 1949.

If we ask the students how they would have interpreted these sentences if they had read them in different contexts, and whether they would have interpreted them to express the same or different assertions, they tend to give the answer «*different*». It is plausible for us to suppose that the answers are *misleading*: if the respondents had not had their attention fixed on certain *possibilities* of differences in interpretation, their answers would have been more correct. That is, if the experiment were carried out, and the respondents made to read either T or U in some contexts, let us say once a month, and to list their interpretation without having an opportunity to compare T and U, the result would probably show an overwhelming majority of interpretations of T and U to mean the same assertion.

In the case of Qs2 No. 1 and No. 2, T and U were:

T: Not all numbers below 10 are divisible by 2 and 3.

U: Not all whole numbers below 10 are divisible by 2 and 3.

Many persons must (characteristically enough!) read the sentences twice before they detect the difference in wording. Once they have discovered the difference, the possibility of interpreting T as referring *not just to whole numbers* stands out clearly, and affects their answers to the synonymy question.

VIII.10. Effect of Reversal of Order of Sentences in Qs3

That this really happens was clear from subsequent interviewing. Some of the respondents changed their answer after having conceived clearly the idea of thinking of the texts as separate texts that are not comparable in the natural context, but only in the subsequent context of the analyst.

Because of the difficulty of abstracting from the analyst's context, Qs2 was changed.

The importance of the confusion lies in the circumstance that whenever a person is asked how he would interpret two sentences, the proximity of the two sentences in the experimental situation will affect the reply: the respondent's attention is at once concentrated on the difference in wording and he is led to imagine that this difference will result in different interpretations of the sentences, even in natural contexts in which the sentences do not occur near each other.

The result of the confusion is a vast overestimation of the definiteness of intention: respondents are led to believe that because there is a difference in wording, the sentences will be interpreted differently and in such a way that interpretations correlate highly with each difference in wording.

Another result is to lead respondents to deny that vast numbers of differently worded sentences may be interpreted the same way without there being reason to accuse the interpreters of superficiality in attention to what «really» is said.

Still, another result is a strengthening of belief that there is a literal sense of words and sentences, which is the real and exact sense, the sense in which linguistically careful and conscious people understand the words and sentences.

VIII.10. Effect of Reversal of Order of Sentences in Qs3

The extensive experimentation with modifying the wording of questionnaires has had but one aim: to make the respondent understand what the analyst tries to communicate to him in the questionnaires. Because of the formidable difficulties met with, it has been considered premature to take up systematically another aspect of importance to the questionnaire technique: that of suggestion, of leading questions, and so on.

Dr. Leo Apostel submitted to us a series of notes concerning possible weaknesses of the questionnaires with regard to suggestibility. At least one

VIII. SYNONYMITY QUESTIONNAIRES IN USE

Table 11. Effects of Reversal of Order of Response Choices, Qs3

Order	Response			Total
	«All»	«Some»	«None»	
a, s, n	25	89	9	123
n, s, a	23	50	21	94
Total	48	139	30	217

of his points was considered important enough even at the present preliminary stage of research to warrant a reformulation of the questionnaires Qs2 and Qs3. In those questionnaires, two positive answers («Yes, in all situations»; «Yes, in some but not in all») are listed before the negative answer is put forth. New versions of Qs3 (called Qs3 No. 3b and Qs3 No. 4b) were used in which the order of possible answers was reversed. As is shown in table 11, the change is correlated with a statistically significant difference in the answers given by respondents.

Although one might have expected the order reversal to cause the number of «Yes. In all situations» responses to drop considerably, such was not the case. If the change in answers is attributable to the change in order, the latter has made the respondents less prone to answer «Yes, in some but not in all», rather than less inclined to answer «Yes, In all situations». The change in frequency is highly significant from a statistical point of view, with $\chi^2 = 11.37$.

VIII.11. Effect of Training on Classifiability of Answers, Qs5

A slight modification of Qs5 was used with «Norway is a democracy» as crucial sentence T, and three different formulations representing U: «Norway has government by the people» («*folke-styre*»); «Norway has a form of government by which the total adult Norwegian population is assured an influence on decisions of significance to the society»; and «In Norway, all who are equally gifted have an equal chance to obtain a higher education».

Two groups were tested. One consisted of fifty-five students at the sophomore level; the other, of thirty-one students who had obtained high marks in courses in logic and history of philosophy or were otherwise known to be well versed in these disciplines. The results of the test are shown in table 12.

VIII.11. *Effect of Training on Classifiability of Answers, Qs5*

Table 12. Classifiability and Training, Qs5

Qs5	Less Trained				More Trained			
	<i>Syn.</i>	<i>Not Syn.</i>	<i>Unclas.</i>	<i>Total</i>	<i>Syn.</i>	<i>Not Syn.</i>	<i>Unclas.</i>	<i>Total</i>
T/U ₁	7	19	29	55	6	23	2	31
T/U ₂	8	20	29	57	3	26	2	31
T/U ₃	1	25	29	55	0	29	2	31

The relations of synonymy answers are about the same in the two groups, but there is a tremendous drop in the number of unclassifiable answers in the better-trained group. The questionnaire Qs5, or at least the version used in the experiment under consideration, must be considered inapplicable to the students with the ordinary sophomore training.

Experience with postgraduate students of logic, philosophy, and linguistics indicates that fresh difficulties arise with «overtraining»: answers tend to consist of lengthy comments concerning the questionnaires or of assurances that the respondent cannot answer because he lacks insight into his own usage, or because of related factors. Thus, the percentage of unclassifiable answers tends to decrease with training up to a certain point, and then increase again.

Twenty-nine answers out of fifty-five were unclassifiable in the less trained group (table 12). One might suspect that the classifiable answers, for example, the straight positive or negative ones, were based on a rather superficial understanding of the questionnaire and that the proportions of such answers largely owe to chance factors. There is an interesting argument against this. It is a rather weak argument, but not too weak to be taken into consideration. A comparison of the twelve quantities under the headings «Syn.» and «Not Syn.» reveals a close agreement in percentages of answers between the less trained and the more trained. This is a symptom of resemblance in interpretation, and if the more trained have been penetrating in their interpretations, the classifiable answers of the less trained might be considered to be representative of a satisfactory degree of understanding.

When we do not take up a number of considerations that already have been shown to be important to the questionnaire technique, it is only be-

VIII. SYNONYMITY QUESTIONNAIRES IN USE

cause of the necessity to work with a priority list. Our first grave question has been, Can synonymity questions be formulated in such a way that they are *understandable* to at least some sectors of a language community, for example, undergraduate or graduate students of certain branches of knowledge? Can the intention of the analyst be roughly conveyed to these persons? How about the small sector of the community consisting of professional students (including professors) of language, logic, and philosophy?

Negative answers to these questions are particularly grave because, so far as I can see, logical analysis and semantics are largely carried on by a kind of embryonic questionnaire method, the analyst asking himself about how words are used. His intended public is mostly made up of students, if not himself alone. Occasionally other analysts read his papers, and this normally leads to controversy in which charges of misinterpretation play an important role.

VIII.12. Concluding Remarks

It is tempting to adapt a questionnaire to the specific task it serves and to ignore the question of how to find standard forms such that what can be found out about the efficiency of one questionnaire can be expected to hold with respect to others. When concepts of a rather sweeping character, such as those of synonymity, are introduced in terms of questionnaire techniques, the search for general forms of questionnaires develops into a major concern. The questionnaires used to obtain the material discussed in this chapter are examples of very simple questionnaire forms. The simplicity and the generality have been obtained partly by deliberate neglect of many methodological requirements that at a later stage of research must be considered to be of high priority.

The primary objective of this chapter has been to offer a sample of material collected by use of the simplest questionnaires, and thereby to furnish a basis for an opinion about what can and cannot be performed by means of such questionnaires.

Secondarily, our objective has been to stress, by means of detailed reports about procedures and findings, that if statements of sameness of meanings are considered to be synthetical, one shall, sooner or later, have to connect synonymity concepts with procedures of some kind, and from that

VIII.12. Concluding Remarks

time on, it will be necessary to carry out time-consuming work of a rather unphilosophic kind. If someone should be induced, by imperfections in the works reported on, to make improvements, much will be gained. The important point here is to get out of the deadlock created by too much sophisticated theoretical discussion about subject matters with empirical aspects.

Scepticism

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Scepticism

Wonder and Joy of a Wandering Seeker

Revised and Edited by Harold Glasser
in Cooperation with the Author
and with Assistance from Alan Drengson

VOLUME II

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in English by Universitetsforlaget, Oslo, 1968.
Published simultaneously in English by Routledge & Kegan Paul, London and
New York, and Humanities Press, London.

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>Series Editor's Introduction</i>	<i>xi</i>
<i>Author's Introduction to the Series</i>	<i>lvii</i>
<i>Author's Preface to This Edition</i>	<i>lxiii</i>
<i>Author's Foreword to the First Edition</i>	<i>lxv</i>
I. Pyrrho's Scepticism According to Sextus Empiricus	1
Introduction	1
A Short Account of Sextus's Pyrrhonism	2
The Sceptical Ways of Announcement	7
The Dogmatic Ways of Announcement	11
Neutrality Toward Subjectivist Phenomenalism	14
The Sceptic's Reference to the Existence of Opposite Views	20
The Mature Sceptic: A Moderately Keen Seeker and Doubter?	23
The Sceptic: A Philosopher?	26
Defining Scepticism	30
II. The Psychological Possibility of Scepticism	33
Introduction	33
Is Scepticism More Logically Than Psychologically Impeccable?	33
Do the Sceptic's Actions Betray His Dogmatism?	35
Can the Sceptic Believe?	43
Must the Sceptic Be a Doubter?	48
Is the Sceptic Unperturbed by Modern Science?	49
Is the Sceptic Sensitive to the Difference Between	
Real and Apparent?	50
General Outlooks Generate Scepticism	52
Can We Assume That Sextus and His Less Articulate Friends Fulfill	
the Requirements?	53

CONTENTS

III. Scepticism and Positive Mental Health	57
Introduction	57
Confrontation with Six Criteria of Positive Mental Health	57
The Alleged Scepticism of St. Augustine and Others	62
The Moderate or Fragmentary Scepticism of the Unphilosophical	64
Encouraging a Sceptical Bent of Mind: Can It Ever Be Right?	66
IV. Conceptual Complementarity of Evidence and Truth Requirements	71
Introduction	71
Restrictions and Qualifications	73
The Shift from Plain Announcing of Knowledge, to Justifying Claims, to Saying One Knows	74
Requirements of “Knowing” Involving Three Questions:	
Corresponding Questionnaires	78
The “Third-Person” and “First-Person” Questionnaires	78
A Conclusion on “Reaching” Knowledge	86
Concepts of Knowing Without a Separately Satisfied Truth Requirement	87
A Suggestion Not to Use Knowledge Expressions Under Certain Circumstances	93
Use of “Know” and Definiteness of Intention	96
A Conclusion on the Complementarity of Truth and Evidence	102
V. Dialectics of Modern Epistemological Scepticism	105
Introduction	105
Standards Relative to Stage of Dialogue	108
Maximum Requirements	110
Maximum Strengthening of Requirements in the Face of Mistakes	113
Maximum and Abnormal Repercussions	116
“I Know Nothing”: General Linguistic Counterargument	118
Circularity of the Sceptic’s Argument	120
The Conclusiveness of Conclusive Evidence: Social and Linguistic Rightness and Truth	120
Examples of Things We Know or Can Know	123
Examples of Evidence Fusing with the Evidenced	128
Incorrigibility and Fallibility	129
Corrigibility as a Requirement of Scientific Knowledge	131

CONTENTS

Can the Incorrīgibility Requirement Ever Be Satisfied?	133
The Incorrīgibility of Truth	139
Critical Inspection of Arguments in Favor of Incorrīgibility as Unattainable	139
Our Penultimate Conclusion on Modern Scepticism	143
Our Ultimate Conclusion on Modern Scepticism	147
<i>Notes</i>	<i>149</i>
<i>References</i>	<i>159</i>
<i>Index</i>	<i>165</i>

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of

what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philosophical palette, not the “world” of his own consciousness as has become

the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our experience of the world is made up of gestalts. "[This] is the world we experience. Nothing is more real."⁴ People create abstract structures to reflect

SERIES EDITOR'S INTRODUCTION

on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess's parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess's "ontological realism" as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of "reality is one" plays a central role in the mature Naess's approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality's concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. "As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence."⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess's perspective, such accounts by themselves are merely a sign of cultural poverty. "God" could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess's gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as "the social construction of nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular

SERIES EDITOR'S INTRODUCTION

to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility

SERIES EDITOR'S INTRODUCTION

as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his

rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative systems can be seen as very "useful fictions," which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others

SERIES EDITOR'S INTRODUCTION

as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess's hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess's view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems' requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a

troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. "We have all read it. We *still* cheat in argumentation, but now with feelings of guilt."¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as "truth," "democracy," and "private enterprise." . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy

SERIES EDITOR'S INTRODUCTION

and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of

SERIES EDITOR'S INTRODUCTION

print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a "great idea" without Doug's generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of envi-

SERIES EDITOR'S INTRODUCTION

ronment should not, in Naess's view, play a pivotal role in shaping a budding philosopher's development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess's philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess's principal writings. As such, the *Selected Works* is the definitive repository of Naess's oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess's philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded,
and should follow his questions wherever they lead.

Arne Naess, "Norway"

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep

rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small moun-

SERIES EDITOR'S INTRODUCTION

tain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potently influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way" — *sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek

broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The

turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that

change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess's 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers' intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as “*Truth as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's “Common Sense and Truth” (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Us-

SERIES EDITOR'S INTRODUCTION

tao set. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created “institutes” of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein’s main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo’s Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi’s catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi’s idea of trying to meet one’s opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war,

Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO's requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy's* richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess's “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess's empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess's frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

SERIES EDITOR'S INTRODUCTION

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO's plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess's research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on

scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is

SERIES EDITOR'S INTRODUCTION

Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation*

and Preciseness, to argue that it is an illusion to assert that combined scientific and philosophical or “purely” philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V),

SERIES EDITOR'S INTRODUCTION

was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhi's Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), "Seek complete self-realization" and "Seek truth," and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of "Self-realization!" as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by

Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions

SERIES EDITOR'S INTRODUCTION

taken earlier. Volume VIII includes sections on "Empirical Semantics and 'Truth,'" "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion,

and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work enter-

SERIES EDITOR'S INTRODUCTION

ing into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach’s proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans’ special capacities for reason and moral consciousness come special responsibilities,

particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and

SERIES EDITOR'S INTRODUCTION

interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three

key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy)

SERIES EDITOR'S INTRODUCTION

make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this ap-

proach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manu-

SERIES EDITOR'S INTRODUCTION

scripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and

SERIES EDITOR'S INTRODUCTION

Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also

SERIES EDITOR'S INTRODUCTION

performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-

SERIES EDITOR'S INTRODUCTION

Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible “work fairies” that were constantly pulling me back to my office don’t actually exist. I can’t wait.

Most of all, thanks to Arne Naess for placing his trust in me—it’s been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora’s box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne’s writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder’s “Axe Handles.” The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser

2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The

SERIES EDITOR'S INTRODUCTION

first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.

SERIES EDITOR'S INTRODUCTION

6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary

SERIES EDITOR'S INTRODUCTION

philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as

SERIES EDITOR'S INTRODUCTION

being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.

24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhi's Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecol-

SERIES EDITOR'S INTRODUCTION

ogy approach to ecophilosophy,” the “deep ecology movement,” and Naess’s “Ecosophy T” (a particular deep ecological total view), see Harold Glasser, “Deep ecology,” in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology’s relationship to Naess’s earlier philosophical work, see Harold Glasser, “Naess’s deep ecology approach and environmental policy,” *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan’s *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess’s Ecosophy T as an inspiration for a feminist normative system in her “Self-realization,” in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was "A philosopher." In fact, I had already conceived of myself as one. I viewed the

AUTHOR'S INTRODUCTION TO THE SERIES

writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that “What do I mean?” is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these “ordinary” people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally

AUTHOR'S INTRODUCTION TO THE SERIES

necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclina-

AUTHOR'S INTRODUCTION TO THE SERIES

tion very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it

AUTHOR'S INTRODUCTION TO THE SERIES

natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity,

AUTHOR'S INTRODUCTION TO THE SERIES

attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

We sometimes say “She has an open mind” or “His mind is closed.” Doors or windows may be more or less open or closed, and they may be completely open or shut. What would correspond to this when we speak of being open to the possibility that an assertion is not true? What about full openness to this possibility, whatever the assertion imagined so far? Would one’s capacity to make a decision completely disappear? Is it deadly to have a completely open mind as to truth and falsity?

In relation to knowledge and truth Sextus Empiricus divides philosophers into three categories: (1) those who believe they have found at least one truth, (2) those who deny the possibility of establishing any truth, and (3) those who neither think they have found a truth nor believe it is impossible to establish any; they have not given up on finding one, a search they tentatively suppose is not of great importance to their happiness. It is not deadly at all. Sextus called them sceptics, Pyrrhonic sceptics, or just seekers (*zetetics*).

I find it strange that the term *scepticism* has been used mostly to refer to those who dogmatically reject the possibility of knowledge in the sense of establishing truths. Philosophers have published a series of good arguments against this view. Very few take up the third view for serious discussion. It is an approach with a kind of complete openness in principle. Because I feel that wonder is not only the beginning but also the likely end of any philosophical inquiry, the third approach has always been of central interest to me. In this SWAN II volume, I show why I feel at home with the kind of openness favored by Sextus. One who has this kind of openness and seeks I call a zetetic. (SWAN VIII contains papers on zeteticism.)

To me every clearly stated question, if taken seriously, leads to other questions, and sooner or later we arrive in the realm of philosophy. From there I see no *theoretical* escape. In practice, of course, I get tired and certain

AUTHOR'S PREFACE TO THIS EDITION

tentative solutions remain on my list. Philosophy starts and ends for me with wonder—or does it? I have not yet thought my last thought—or perhaps I have?

To wonder is not the same as to be in a state of doubt. Pyrrhonic sceptics and zetetics tend not to doubt but to trust. A zetetic is always learning and changing and has a flexible attitude toward language and life.

Arne Naess

2004

Author's Foreword to the First Edition

In the present work I attempt to give a concise account of sceptical philosophy in its most radical and important form and try to remedy certain weaknesses in the traditional ways of describing this philosophy as well as respond to certain arguments that have been brought against it.

I believe there are many good reasons for investigating various forms of thinking traditionally referred to as scepticism. First, as with many other viewpoints, the force of sceptical attitudes makes itself felt acutely, making one at least temporarily a sceptic. Second, when we feel far from scepticism, it is often because we have accepted or postulated certain fundamental positions or principles, but only for the time being. From time to time these fundamentals appear arbitrary or at least less evident, obvious, or even useful, and then the attitude of sceptical “looking around” reasserts itself. Thus, many of us are nomads in philosophy, and sceptical attitudes or doctrines are our recurring pastures. Third, sceptical philosophies, and especially Pyrrhonism as pictured by Sextus Empiricus, are mostly misunderstood and apt to be described in ways that make them appear unnecessarily crude or absurd. There is room for a more sympathetic study of the ancient texts. The reader will find that my references to contemporary philosophers who discuss scepticism are mostly critical. This must not be taken to imply a general disagreement with them, let alone a negative assessment of their contributions. It is simply that discursive economy requires that I concentrate on those points on which I disagree, or agree only with qualifications. I should like to say that I find many contemporary discussions admirably clear and pertinent, perhaps especially those that I find reason to dispute on certain points.

I am grateful to the Norwegian Research Council for Science and the Humanities for a grant making it possible to carry through the historical research needed in this project, and to Mr. Alastair Hannay for valuable assistance in revising the manuscript.

I

Pyrrho's Scepticism According to Sextus Empiricus

Introduction

In this chapter I offer an account of only one special form of scepticism, the philosophical activity and view known as Pyrrhonism. Moreover, the account I give is of Pyrrhonism as represented by Sextus Empiricus in his work *Outlines of Pyrrhonism* (1933). Thus, my treatment of scepticism might seem to be doubly narrow. However, there are some reasons for not attempting a more inclusive picture. One is that such presentations can already be found in textbooks on Greek philosophy, in philosophical and other reference books, and in a number of monographs devoted solely to scepticism. But there is a more compelling reason as well.

Apart from a few monographs from between about 1860 to 1920, there are no accounts of Greek scepticism that seriously undertake the task of seeing the sceptics as they saw themselves. It is, of course, a very common experience that if one studies a philosophy closely, one becomes dissatisfied with existing accounts of it. This case, however, is a special one: the distance between what Sextus Empiricus seems to convey to his reader and the usual account we are given of what he says is altogether too great to let go unnoticed.

There is also a special reason for concentrating on Sextus's account of Pyrrhonism. As he portrays it, Pyrrho's scepticism is, so far as I can judge, superior to any other variant in its consistency, its radicalness, and also in its *practical* importance for intellectually gifted persons with high ideals of sincerity and honesty. Thus, Sextus's Pyrrhonism provides us with a yardstick and a fundamental framework by means of which all forms of less radical, less consistent scepticism may be measured and mapped out. I therefore invite the reader to try to understand this radical scepticism and to be patient with what at first sight can hardly fail to seem absurd or far-fetched.

This, then, is the motivation for our short and general account of but one of the varieties of scepticism: Pyrrhonism as depicted by Sextus Empiricus. The sources, as with all philosophical classics, lend themselves to different interpretations, and I do not wish to try to convince the reader that my own interpretation is the only one that can be constructed on a historical basis. But I think that many will agree that the interpretation I give presents the sceptic (here in the sense of the Pyrrhonist as pictured by Sextus) as less inconsistent or preposterous in his claims than he is made to appear in some of the most widely read accounts.

A Short Account of Sextus's Pyrrhonism

Much learned historical work has been undertaken to find out which sceptics taught what. I shall try neither to add to nor subtract from the conclusions of historians of philosophy on this point. The decisive thing to note is that the only extant work by a Greek sceptic is that of Sextus Empiricus. The study of Greek scepticism must therefore in the main be a study of his texts.

There are, it is true, reasons to suspect that Sextus is not altogether accurate in what he says about other sceptics and that Pyrrho in particular might not have approved of all of Sextus's references to him. But I shall not be concerned with this question; instead I shall try to give a summary account of Pyrrhonism as depicted by Sextus in *Outlines*. What marginal notes and exclamations Pyrrho himself would have put into a copy of Sextus's *Outlines* is an intriguing topic for speculation. The account I shall give is something that can be assessed and tested by studying the actual texts of Sextus. In what follows, the terms *Pyrrhonism* and *scepticism* will be used as shorthand for "Pyrrhonism as pictured by Sextus." Of course, Sextus does not assert the truth of any of his sentences about Pyrrho as a historical person.

But first, in order to clear up some ambiguities, a few remarks on the use of the term *scepticism*. The term is used in many ways, which can be distinguished by separating four dimensions of variation:

1. *Comprehensiveness*. *Scepticism* is often used as short for "religious scepticism," for "ethical scepticism," or for some other nontotal field of human concern. The most comprehensive kind of *philosophical* scepticism covers all fields of articulated cognition or discursive thinking. Pyrrhonism belongs to that kind.

2. *Intensity*. If a philosopher thinks we are able at least sometimes to distinguish the more probable from the less, but not the true from the probable, or the false from the improbable, he is often called sceptical. But another philosopher is also sometimes said to be sceptical who suggests that the more probable can never be distinguished from the less. The difference may be said to be one of intensity.
3. *Self-reference*. If a thinker states that nothing can be known, the question arises whether he thinks he can know that he cannot know anything. That is, there is an exception: we can know that it is impossible to reach knowledge. If he answers no, we may say the statement is intended to include itself in its reference. Sometimes the former position is called Academic or Dogmatic and distinguished from the latter, the Pyrrhonic. This is the terminology I shall adopt. (It may of course be disputed whether this third dimension, of self-reference, is independent of the first and second. It is, in any case, convenient to treat the question of self-reference as a unique one.)
4. *Articulateness*. As a professional philosopher, the sceptic must articulate his scepticism, preferably in words. The great sceptics of the classical Greek tradition were not only masters of sceptical verbal articulation but also sceptical in their nonverbal attitudes. In the history of ideas and in general cultural history, nonverbal attitudes also count. A person may be termed a sceptic even if he does not express his bent of mind verbally.

For our own introductory purpose, the best way of identifying sceptics is to follow Sextus in his narrative of how (certain) gifted persons develop by stages into mature sceptics. Seven points characterize their development:

1. Faced with “contradictions” in things and with philosophers who contradict one another, gifted people become frustrated and undecided and set out to discover for themselves what is true and what is false. They are led to consider all kinds of doctrines and arguments in the hope of restoring their peace of mind.¹
2. Those who investigate matters systematically eventually become philosophers. As such, they fall into one of the following three main classes: those who claim that they have found at least one truth, those who claim that truth *cannot* be found in any matter, and those who

neither claim that they have found at least one truth nor claim to *know* that truth cannot be found, but persist in their seeking (*Outlines*, bk. 1: 1–3).

These three groups are called respectively Dogmatists, Academicians, and Pyrrhonic Sceptics. (The first two are also called dogmatic in a wider sense.) It is important to note here that in contemporary Anglo-American professional philosophy, the sceptic is identified with the person who positively denies that one may know anything for certain. That is, the sceptic is identified with what Sextus calls the Academician. The Academician is an active participant in philosophical discussion, maintaining a definite position, a standpoint; the sceptic, in the sense of Sextus, has no position, as we shall see. Although he throws arguments into the discussion, he takes no part in the evaluation of truth-value. Although he confronts the dogmatist with counterarguments, he does so without accepting any of them as true or valid.

3. The personal development of the sceptic is of a peculiar kind: he finds that to any pro-argument for a doctrine or proposition there can be found an at least equally strong contra-argument, or that, summing up pros and cons, the arguments balance one another. Or, to be more accurate, the sceptic finds no better grounds for accepting the arguments in *favor* of the doctrine than for accepting those *against* it (*Outlines*, bk. 1: 8, 10, 12, 26). These statements require careful interpretation.

It would be a mistake, for example, to attribute to the Pyrrhonist a *principle*—a general rule—of opposing all arguments with equally strong arguments. One can hold such a principle only if one is sure, or can take it for granted, that there are always such arguments to be found. But, as will become clear later, whether this is the case is a question the Pyrrhonist leaves open—otherwise he would tend to side with the Academicians.²

Thus, the developing sceptic (or the sceptic *in statu nascendi*) has no prejudice in favor of counterarguments. He does not look more intently for contra- than for pro-arguments. It just so happens that he finds that arguments balance one another. Or, to be more exact, it so happens that he does not find a sufficient weight either *pro* or *con-*

tra to justify a decision about what is true, or even about what is more probable. In order to stress his lack of conclusion, he prudently uses the past tense: he has not, up to now, found anything that decisively disturbs the balance between pro and contra, that disturbs his general *isosthenia*, or state of mental suspense (*Outlines*, bk. 1: 190, 200).

4. The corresponding psychological phase in the making of a mature sceptic is the gradual development of a deeply entrenched bent of mind, a state of suspension of judgment, or *epoché*. The mature sceptic decides neither for the positive nor for the negative in relation to any doctrine but allows both possibilities to stand open. The state of suspension is a form of mental rest—quietude, repose, immobility, stability (*stasis dianoías*). The suspension slowly develops into a firmly based bent of mind (*Outlines*, bk. 1: 8, 10, 196, 205).
5. To his surprise, the sceptic eventually finds that *epoché* leads to, or is accompanied by, that same peace of mind (*ataraxia*) that he set out to achieve by finding truth (*Outlines*, bk. 1: 8, 10, 12, 17, 28–30). But the mature sceptic will not, of course, claim that there is a necessary connection between *epoché* and *ataraxia*.
6. The mature sceptic obeys or follows the ordinary or normal rules of his community. He is guided, but not determined, by nature, traditions, laws, and customs. He may instruct himself in some skill or other and adopt one of them, perhaps medicine, professionally (*Outlines*, bk. 1: 17, 22–50, 226–27, 230–31, 237–38).
7. The mature sceptic is still a seeker. He does not claim to *know* that truth cannot be found in any matter. Thus, he is prepared to investigate and evaluate any new argument in relation to any conclusion. He leaves all questions open, but without leaving the question. He has, however, given up his original, ultimate aim of gaining peace of mind by finding truth, because, as it so happened, he came by peace of mind in another way.

To sum up, then, scepticism as outlined by Sextus is neither a doctrine nor a system of rules of life positively claimed to bring peace of mind. The mature sceptic is a philosopher who, like the early Socrates and some influential philosophers of our own time, makes no philosophical assertions.

The most concise exposition of the philosophy of the mature sceptic is to give an account or narrative of his life in the way Sextus does. However, since Sextus the metasceptic is the same person as Sextus the sceptic, he explicitly denies that he claims the (objective) truth of any of the statements of the narrative. Not that the sceptic cannot allow himself to *say* anything or must inhibit any tendency to do so. If he feels like it, he may express what is on his mind, and sometimes this will result in long narratives: his ways of verbal announcement are many, but they do not include assertions of truth.

Having attained peace of mind (*ataraxia*) by suspending judgment (*epoché*), and having reached general suspension of judgment by *isosthenia*, the sceptic is inclined to try to preserve *isosthenia*, that is, to look for counterarguments and counter-counterarguments. A natural expectation will build up that he will in this way retain his general suspension of mind, and he will be inclined to try to help others who are not yet, but seem to be on the way to becoming, mature sceptics.

In certain kinds of situations, those individuals following the sceptical way adopt a set of maxims or sayings—often called sceptical—such as “Arguments and counterarguments balance each other.” But here the claim ordinarily intended when someone asserts something is not made; rather, such maxims are to be taken as symptomatic of the state of the sceptical mind. Thus the maxim “No statement is true” is, according to Sextus, self-defeating as an assertion: if it is true, then it is false. The sceptic, therefore, does not feel inclined to *assert* that knowledge cannot be reached, or to venture any of the other sayings frequently taken to be expressions of a doctrine of scepticism. Although the sceptic articulates his philosophy in a most careful way, there is one manner of using language that he most carefully avoids: the assertion.

In what follows, we shall adopt the above seven-point definition of scepticism. Thus, it will be a matter of definition that the mature sceptic has peace of mind. Indeed, all traits mentioned in the seven points will belong to the sceptic by definition.³ What can fruitfully be discussed, therefore, is, among other things, the conditions and likelihood of the seven-point development and the stability of scepticism as a bent of mind and way of life. This, as we shall see later, is the same as to discuss the possibility of a radical scepticism.

The Sceptical Ways of Announcement

Sextus, then, is not a philosopher with doctrines. He will not admit to having any definite opinion as to the truth or falsity of a proposition. But in this case, how are his utterances (*fonai*) to be interpreted? What uses of language do they represent? What ways does he have of *announcing* his bent of mind?

Sextus makes use of a great variety of terms to contrast his own ways of announcing with those of the dogmatists. I shall first mention some of those used in the opening chapters of *Outlines of Pyrrhonism*.

1. *To report as a chronicler*. At the end of the first chapter, Sextus says that in what follows he does not affirm the truth of what he says, but only *reports as a chronicler* how things appear to him at the moment of writing. The crucial expression here is *historikós apangellomen*.⁴

Even someone who is, in the usual sense of the word, merely a reporter of what appears to him at the moment to be the case would claim truth for his account of the *appearances*. He would affirm that this and not something else is how it *really* “strikes him” at the moment. Later we shall see how Sextus meets this complication. In fact, he virtually retracts the view that the sceptic uses language in the same way as a chronicler or reporter. In other words, the first special characterization of the sceptical way of announcement is not a very happy one.

2. *To utter*. In chapter 2, Sextus declares that later on in the book he will give an account of how or in what sense the sceptic adopts what he, the sceptic, “shows forth” or “displays in words.” These somewhat peculiar expressions I use only provisionally. In fact, the term Sextus adopts is one that he often uses in connection with statements of doctrine—*apofasis*. One important complex expression is *skeptikai apofaseis*. Robert G. Bury translates this as “sceptic formulae,” Eugen Pappenheim as “*skeptische Aussagen*.” However, when Sextus comes to the passages in question, he does not use the dangerous word *apofasis*; instead he consistently uses *foné* (utterance). This term appears in logical and other Stoic texts in contradistinction to *lekton* (that which is, or might be, signified by the utterance);⁵ its most elementary meaning is “sound,” and by using this term, Sextus avoids

contamination with doctrinal ways of announcement. He leaves it open as to what use of language is realized: *foné* is a highly noncommittal word.

3. *To acquiesce in and accept (in words) what appears.* The sceptic does not oppose what appears to him, but acquiesces (*eudokeo*) in it. The term *eudokeo* contains *dokeo* (I opine), but apart from meaning "think well of," it can also mean "accept," or "say yes to," in a noncognitive way. He accepts (*synkatatithémi*—assent to) what, involuntarily or by necessity, appears to him (*Outlines*, bk. 1: 13). Thus, when feeling hot or cold, he will not say that it does *not* seem hot or cold to him.

From these formulations one can gather that Sextus looks on some or all of the sceptic's utterances as more or less *caused* by states of perception⁶ that are forced on him. When saying "I feel cold," the sceptic does not make an assertion *about* something; rather, he assents *to* something. Although what he says can be construed as an assertion, it is not an assertion in the sense that he positively takes a stand for rather than against something. He is not asserting *rather than* denying; nor does he *oppose* an impulse toward not saying it. He will neither affirm nor deny "It now seems hot (cold) to me" as a proposition.

4. *The sceptical formulas or phrases.* Sextus divides what the sceptic talks about into two classes, the evident (*délon*) and the nonevident (*adélon*). The "immediate" and the "mediate" may be better translations. What is said in number 3 above (*Outlines*, bk. 1: 13) holds for the evident ("I feel cold," etc.). But the sceptic also utters his famous "sceptical phrases." These make up either a subclass or a total class of his own sayings about nonevident things, such as arguments.

That the sceptic does not intend to assert something or state that something is the case when uttering his sceptical phrases, is clearly, explicitly, and repeatedly stated by Sextus himself. It would be of no avail to assert them, says Sextus, because each one "cancels itself," "strikes itself out" (*perigrafo*). Thus, even "Not more this than that," which is said when comparing the force of argument with that of counterargument, is meant to apply universally; it, too, cancels itself out, just like the (nonsceptical) phrase "Nothing is true." The same applies to "I do not decide (determine the truth-value of) anything." According to this, I do not even decide that I decide nothing.

Incidentally, neither “Nothing is true” nor “All is false” mentioned here (*Outlines*, bk. 1: 14), is included among the sceptical phrases.

5. *To put forward*. Of the sceptical formulas, Sextus says that they are *put forward* (*profero*).⁷ They are put before the dogmatist and used for didactic purposes among sceptics during their training, not to teach sceptical theorems (they do not exist), but to suggest the state of mind of the sceptic when approached by dogmatists. Their function would resemble that of certain standard exclamations such as “Well, I never!,” “Take your time!,” and “Be careful!”
6. Sextus uses such words as *perhaps*, *presumably*, and *it seems* out of standard context. That is, where he puts them they would be badly placed if they were not used to remind the reader that “this is not to be taken as an assertion.” The book’s opening sentence has an unnatural “it seems”: “Those who seek, it seems, either find what they are looking for, or reject the (possibility of) finding it, and deny that it can be grasped, or go on searching.” Most likely this is meant to be an exhaustive classification: at least Sextus suggests nothing that could be argued against it. The “it seems” serves to indicate that the main sentence is intended to function not as an assertion of a true proposition but as an utterance of some other kind. On the other hand, Sextus intends that the dogmatist should be able to evaluate the proposition that the sentence *can* be intended to express, even though it did not happen to be thus intended by the sceptic.
7. *To say something indicative of our state of mind* (how we feel about things) (*Outlines*, bk. 1: 197). Sextus says about one of the sceptical phrases, namely “I determine nothing,” that it is not meant as an affirmation; rather it is a sound (*foné*—utterance) indicative of the sceptic’s state (of mind).⁸ There are two interpretations of *indicative* that can be applied in this context: “deliberately intended to be indicative” and “indicative as a matter of fact.” The latter, perhaps, fits in best with the general attitude of the sceptic.
8. *Talking loosely*. One may talk without presupposing any definite conceptual frame of reference, taking “conceptual” here in a rather narrow sense—not in the broad way in which children conceptualize as soon as they learn to use everyday abstract terms, but as explicit definitions or closed systems of propositions. We may think of

a conceptual framework or frame of reference, therefore, as a system of definitions providing clear-cut rules of interpretation, at least for certain basic terms. Obvious examples of such terms would be *true*, *truth*, *fact*, and *proposition*. Philosophers who define these terms become involved in the choice or development of complicated conceptual structures, just as do biologists in defining *life*, and anthropologists in defining *man*. Where, as in most cases, the terms in these structures are taken from everyday language, they are given clearly delimited meanings that contrast with their more loose employment in ordinary contexts. In their explicitly delimited use, terms are applied and propositions expressed by means of them being accepted or rejected according to the explicit commitments of the system. In their "ordinary" use, no such commitments are intended, and no choice among the alternative structures is made. Thus, if I say "I see a man coming," I may do so without having any definition of *man* (for example, Plato's) in mind; in speaking loosely, no such definition need be presupposed. Consequently, if I am asked to state exactly what my proposition is, I may answer, "Honestly, as far as I can judge, I did not have anything definite in mind. In regards to *man*, I never saw a definition I felt was a good one; on the other hand, I never really felt the need for a definition."

The "loose talk" Sextus engages in is in this way philosophically uncommitted talk, talk with rather little definiteness of intention relative to questions that are not of an everyday nature or that presuppose explicit conceptual frameworks. Its low degree of definiteness in fact renders "loose talk" incapable of location with respect to a conceptual system or frame that presupposes higher definiteness. An utterance such as "I see a man coming" may be perfectly appropriate even if it lacks a definiteness of intention such as would render it classifiable in relation to theological, existential, biological, or anthropological definitions of *man*. [The notion of the degree of a term's definiteness of intention will be elaborated later (see chapter 4, pp. 96–102).] But provisionally, we can identify what we mean by this phrase by noting that in talking about interpreting a statement not only do we use words that are inherently indeterminate or ambiguous—in that they can be used on different occasions

to say different things—but also on any particular occasion we may or may not have considered a variety of nonsynonymous interpretations of the words we use. Roughly, one utterance has less definiteness of intention than another if among a set of possible, nonsynonymous interpretations common to both utterances, it makes fewer discriminations than the other utterance. A “loose” expression is one that makes no discriminations in terms of explicit conceptual frameworks.

The Greek adverbs *adiaforos* and *adoxastos* are the main terms used by Sextus to suggest the peculiar looseness with which the sceptic puts forth the sentences by means of which he expresses his mind.⁹

Some of the apparently most absurd utterances thrown into dogmatic debate by sceptics acquire sense if interpreted in relation to definite conceptual frameworks. Consider, for instance, phrases relating to nonexistence, such as “Man does not exist,” “There is no such thing as position in space,” “No teacher exists,” and the like. We may assume the sceptic to intend expressions like these in relation to particular frameworks (those of the discussions he is witness to).

9. *Giving a message.* There are other forms of giving a message than reporting “as a chronicler.” Sextus uses a word (*apangellomai*) that leaves the question of technique of mediation open. The word may even cover utterances that the sceptic makes involuntarily—when he “accepts” appearances.
10. *Saying things.* Sextus lets the sceptic “say” (*fémi*) this or that in contexts where dogmatists would usually “state” or “assert” (using *lego*).
11. *Inclination to believe.* Sextus rejects probabilism, but sometimes uses terms to designate the inclination to believe one proposition rather than another (*pithanos* and *peitho*; see, for example, *Against the Logicians*, bk. 2: 473, 475). In mature sceptics, he takes these “natural” inclinations to be transitory states of mind.

The Dogmatic Ways of Announcement

1. *To opine.* Academic philosophers, says Sextus in the opening section of *Outlines*, have the opinion (*dokeo* —opine) that truth *cannot* be grasped, that it is inapprehensible (*akataléptos*). In general, to put forth as an

opinion, "to opine," is treated by Sextus as a nonsceptical way of announcement. It suggests that what one says is at least nearer the truth than the negation of what one says.¹⁰

2. *To grasp (as true)*. To say "I found that *p*," "I grasped that *p*," "I discovered that *p*," and the like, is even stronger than "I opine that *p*." It is to use a truly dogmatic way of announcement (*Outlines*, bk. 1, chap. 1). Sextus says that the Academician holds the opinion that he has *grasped* at least one truth, one true proposition, namely that there is not a single proposition (except this) that the truth of which can be grasped. As to this grasping, the basic metaphor seems to be that of obtaining a firm hold on something and keeping it securely in one's grasp.
3. *To affirm the certainty of what one says* (e.g., *Outlines*, bk. 1: 4). The Greek term here, *diabebaioumai*, is frequently used by Sextus (on behalf of the dogmatists). In denying that what it expresses has ever found a place in his own life, he may be said to be rejecting all claims of certainty, all guaranteeing (that it is so), giving assurance, or vouching—at least as far as *he* is concerned—relative to the truth of propositions. He does not predict that it will always be so, or that it must be so (as does the Academician). Even less does he claim that one can never, or should never, be certain, feel certain, have confidence.

If one explicitly says "It is certain that *p*," the prefix indicates the kind of claim made about "*p*"—it is one that includes the truth claim. Sextus means his comments to cover also cases in which the speaker manages to convey by other means that he holds *p* to be certain. Indeed, this applies to all the instances mentioned here: they cover not only the uses of *certain phrases* to express certain claims but also *the claims themselves*, however expressed.

4. *To posit as true, real, or really existent*. In opposing dogmatic opinions to one another, and saying that none is more credible than any other, Sextus says that the sceptic takes nothing for granted as true or real. The expression he uses here (*tithémi hós hyparchon*) probably implies truth or at least probability, whereas to pose or posit (*tithémi*) does not.
5. *To affirm one's conviction that what one says is true* (e.g., *Outlines*, bk. 1: 18). Sextus explains that the sceptic deals with questions concerning nature and essence in order to oppose (fight) dogmatic positions, not in order to say things with firm (certain) belief (*meta bebaion peismatos*).

6. To say *what a thing is by nature, in itself or in its essence* (*Outlines*, bk. 1: 20). Honey, says Sextus, seems sweet to us; we grant this, but whether honey *is* sweet—that is, sweet by nature, in its essence—is a subject for investigation. The honey’s sweetness is not appearance but something postulated on the basis of appearance.
7. *To settle* (*Outlines*, bk. 1: 197). Sextus defines “to settle” (*horizo*) in the relevant contexts not simply as to say something, but to put forward something nonevident with affirmation (*synkatathésis*). Bury translates the Greek word as “to determine.” In Latin translations we usually find *determinare*. “To settle” is a common meaning of *horizo*, however, and it suits the text where “determine” does not, either in the sense of “causally determine” or that of “define.”
8. *More worthy of belief*. Among conflicting judgments, no one is more worthy of belief (*pistoteros*) than any other. Although, as we have noted, Sextus does not adhere to any probabilism, some of the terms he uses may be translated by “probable,” but it is better to refer generally to inclination toward belief.

In conclusion, then, one may say that some phrases are taken to be exclusively sceptical, others to be exclusively dogmatic, and a third group comprises phrases belonging to both groups, but with different shades of meaning. It is important to point out, however, that the mere isolated use of a phrase with either sceptical or dogmatic intent does not in itself mean that the user is a sceptic or a dogmatist. There is also a time factor to take into account. Psychologically, scepticism must be considered a stable disposition, even if a momentary state of mind may hide it and even be inconsistent with it. Thus, a phlegmatic man may become momentarily agitated, and a mild man succumb to anger. Dispositions, however strong, are in this respect different from certain other states. The mentally blind, for example, may, under special circumstances, come to “see the light” in a way that has no parallel with the physically blind. Similarly, the sceptic may, under special circumstances, find something to be undeniably true, indubitable, absolutely certain. He does not then *suddenly* cease to be a mature, consistent sceptic. Only if the convictions persist does he leave the brotherhood of sceptics.

These reflections call to mind a passage in David Hume’s *Treatise* in which he apologizes for his very frequent lapses into a highly dogmatic style:

It is easier to forbear all examination and inquiry, than to check ourselves in so natural a propensity, and guard against that assurance, which always arises from an exact and full survey of an object. On such an occasion we are apt not only to forget our scepticism, but even our modesty too; and make use of such terms as these, *it is evident, it is certain, it is undeniable*; which a due deference to the public ought, perhaps, to prevent. I may have fallen into this fault after the example of others; but I here enter a *caveat* against any objections, which may be offered on that head; and declare that such expressions were extorted from me by the present view of the object, and imply no dogmatical spirit, nor conceited idea of my own judgment, which are sentiments that I am sensible can become nobody, and a sceptic still less than any other.

(Hume 1911, vol. 1: bk. 1, pt. 4, p. 258)

In assessing the extent of Hume's scepticism we should perhaps keep his caveat in mind, though one does so with certain reservations after reading Sextus Empiricus, who himself very rarely succumbs to dogmatic expressions. Certainly the style of "the greatest sceptic of modern time" is highly dogmatic in its use of extreme terms and its tendency to bring readers precipitately to far-reaching conclusions. One might have expected a publishing sceptic to tone down his antiseptical expressions when revising his manuscript or proofing it, but Hume gives little evidence of that. How, for example, could a sceptic conclude his ethical speculations with the sentence (Hume 1911, vol. 2: bk. 3, pt. 3, p. 310): "Thus, upon the whole, I am hopeful that nothing is wanting to an accurate proof of this system of ethics"?¹¹

There is, of course, nothing inconsistent in entertaining or expressing such a hope, but at the same time it is a hope to be rid of scepticism. Indeed, even the hope that one's system is more probable than just one other system envisages an end to one's Pyrrhonian or, for that matter, one's Academic scepticism. In order to understand the dogmatic style it is perhaps important to stress the least radical versions of the dogmatist's epistemological "scepticism," his probabilism, which permits very high, objective probabilities to be reached.

Neutrality Toward Subjectivist Phenomenalism

From a close inspection of the way of the sceptic, it is clear that he tends to avoid commitment to conceptualizations or conceptual frameworks; he will therefore tend to avoid any intellectualization of trust, confidence, and be-

lief in terms of the truth of propositions within such frameworks. Pyrrho's philosophy might therefore be called "anticonceptual" because his doubt concerning intellectual abstractions is so profound that he ends up without an explicit conceptual framework of his own. Pyrrho limits himself to undermining the conceptual frameworks of the dogmatists, without erecting any new one.

Many of the sentences and phrases used by Sextus, however, suggest adherence to a kind of phenomenalist and subjectivist position that we associate with the name of Descartes. If this were so, scepticism would be a kind of doctrinal philosophy; it would contain as an integral part a specific ontology, and it would adhere to a conceptual framework that allowed it to provide answers to questions with a high degree of definiteness of intention. It must therefore be an important part of the exegesis of our texts to see whether such a classification can be avoided without strain.

Occurrences of *fainomai* in forms other than the famous participle *fainomenon* are plentiful. In most cases, they have a rather general meaning, for example, "it seems," "it seems to me," "so it appears," "apparently," and "so it appears to us." What it is that appears, or seems, may be of very different kinds. In its first occurrence, that which is said "to appear to us" is that "Pyrrho applied himself to scepticism more thoroughly and conspicuously than his predecessors."¹² At another place, Sextus says that the sceptic uses the phrase "I suspend judgment" to indicate that things *appear* equal as regards to credibility and incredibility. In other connections, these "things" are defined as arguments; thus certain properties of arguments or of attitudes toward arguments are said to appear in certain ways. Quite often *fainetai* occurs where one would normally expect *esti* (etc.), that is, instead of "is." Something is said to appear, or appear such and such, in contrast to saying that it *is* such and such. Used in this way, it is clear that, conceptually, *fainetai* (it seems) does not imply that what seems must be sense data, sense impressions, subjective states, or the like. There are no definite limits to what can be said to appear and to appear so-and-so.

Subjectivity enters only in the sense that the sceptic does not claim truth, certainty, objective validity, or existence, but stresses that what he says is what *he* says, and that it bears witness to *his* state of mind *at that moment*. That is, he might say something different later or may have said something different in the past. It is what *appears* to him that guides him in his

daily life, not hypotheses or convictions about what is true. Accordingly, when the sceptic says "sweet," "this is sweet," or "honey, sweet," he does not intend to assert that honey as such—as the object perceived by him and others—is sweet in the sense of having that property by nature, nor does he intend to stress that what he speaks about is a sense impression of sweetness as opposed to an object causing or conditioning the sense impression.

The best interpretation seems to me to represent the sceptic as having a definiteness of intention no greater than that which we have in daily life when saying, for example, "honey, mm, yes, sweet"; that is, a definiteness not great enough to say that we intend to talk about a subjective impression rather than an intersubjective object, or vice versa. Confronted, therefore, with the philosopher's question "Is the sweetness in you or in the honey?" the sceptic can already apply his suspension of judgment. He does not side with the phenomenalist or subjectivist, who answer that sweetness is in the mind or consciousness or is only a phenomenon without its counterpart in the object, and so forth.

There are, admittedly, certain terms used by Sextus that are often translated in such a way that seemingly allow charges of phenomenism and subjectivism to stick.¹³ But if one takes these terms one by one, it is plain, I think, that no such translations are strictly needed, and that even if certain terms are used that generally express subjectivism in *philosophy*, they need not do so in everyday vocabulary. Thus, *feel* in "This is how I feel about it" need be no more subjectivist than "So it seems to me."

A further complication arises, however, from the use of expressions that do seem to suggest that the sceptic accepts the philosophical dualism between an external world or reality and internal states of consciousness and consciously limits himself to introspection. But the term translated by "external" (*exóthen*) (*Outlines*, bk. 1: 15) occurs in a context that does not imply that philosophical distinction. Two things are contrasted: giving a message concerning one's state of mind (Pappenheim's *sein eigener Zustand*) and affirming with certainty something about its grounds (i.e., something outside the state of mind and therefore not identical with it). In this terminology, anything beyond a present state of mind would count as "external" to this state, even if it were another state of mind—for instance, a belief one had as a child. There is no implication of externality in the sense of an external versus an introspected world.

In regard to “state of mind,” the everyday use of this expression does not imply any philosophical concept of states of consciousness. Sextus uses the term *pathos* for all that seems, including how one feels about certain arguments.

How the ideals of historians of philosophy change! To Robert D. Hicks (1910), the existence of a real world behind consciousness seemed to be a fundamental problem and neglect of it a tremendous handicap.

The scepticism of antiquity busied itself with the problem of knowledge. But when compared with cognate inquiries in modern philosophy, it appears in its scope and range almost ludicrously tentative, jejune, and superficial. That the object of cognition was external reality, nay more that it was material reality, was not in that age seriously questioned. No one ever challenged the existence of a real world of things lying behind the phenomena of which we are conscious.

(Hicks 1910: 312–13)

The implied criticism is that although Berkeleyan idealism (as traditionally conceived) had not yet been developed, a contemporary of Sextus should nonetheless have taken account of it. But there is no reason why sceptics should proffer arguments against distinctions and positions not yet developed by any dogmatists. And in any case, in suspending judgment about propositions concerning things (e.g., honey) that are said to have certain qualities (e.g., colors, tastes), the Pyrrhonist has made it sufficiently clear just how he would react both to an assertion and to a denial of an external world.¹⁴

The scope of Karl Jaspers’s penetrating *Psychologie der Weltanschauungen* (1954) leads one to expect a broad treatment of a variety of sceptical attitudes. But although there is some variety, it is unfortunately all mixed up with forms of nihilism. Friedrich Nietzsche and reactions to Nietzsche dominate Jaspers’s approach. Pyrrho’s answer to the question “How is the world?”—his worldview (*Weltbild*)—is itemized in seven dogmatic and sweeping statements (Jaspers 1954: 297). One of these is that we do not know and cannot know how the world is. Others represent Pyrrho as a phenomenalist and subjectivist in the modern philosophical sense. All in all, the sceptic, according to Jaspers, is a rather pitiable creature to be characterized mainly by what he lacks.

In the first book of *Against the Logicians*, sections 190–99, Sextus gives a detailed and very clear account of the Cyrenaic position. It is a marked

subjectivism, according to which one may infallibly make judgments about feelings (in the old sense of affective states). We can state with infallible certainty that we sense whiteness or sweetness, but we cannot grasp the objects producing these feelings or tell whether they are white or sweet. Feeling is the criterion: truths can be grasped, but only insofar as they describe feelings. Significantly, however, Sextus takes this doctrine to be an example of a dogmatic solution to the problem of a criterion of knowledge. That is, Sextus himself does not adhere to any of these solutions; he uses them as counterarguments. And he also brings arguments against the position that there can be a criterion.

It is therefore safe to conclude that scepticism, according to Sextus, does not embrace the subjectivism of the Cyrenaics or any other sect. Feelings, appearances, and sensations are not capable of furnishing a criterion of truth and validity, not even for a proposition that itself only describes an affection, appearance, or sensation.

So much is clear from the lengthy discussion by Sextus of criteria of truth and validity. Nevertheless there are passages in *Outlines* that are liable to be misunderstood. Thus, in one place Sextus seems to confirm that only one's own states of mind can be "grasped" (*Outlines*, bk. 1: 215). What one should do in such cases, however, is to give the passage an interpretation consistent with the rejection of any criterion, not to take it as proof of his belief in introspective certainty and knowledge.

Our conclusion, then, is this: Scepticism, if characterized by the seven-point account of its genesis, far from implying modern philosophical subjectivism, introspectivism, or phenomenalism, is at once more general, formal, and dialectical. In fact, the sceptic preserves his neutrality by not transcending certain everyday distinctions that may, but need not, lead to just such systems if worked out in relation to precise conceptual frameworks.

Indeed, it might be said that Sextus Empiricus's great contribution to thought was his indication of scepticism as a way of life, a way in which the embrace of doctrine is systematically avoided. If it is easy, as it has been customary, to praise him simply as an early expounder of more recent doctrines, or to see him simply as a useful source of philosophical theories, it is because one forgets or fails to see that these views were simply meant to be thrown into counterdoctrines likely to be held by his contemporaries. Consider, for example, Roderick M. Chisholm's (1941) evaluation of Sextus Empiricus:

His most significant contributions are: first, the positivistic and behavioristic theory of signs which he opposed to the metaphysical theory of the Stoics; secondly, his discussion of phenomenalism and its relation to common sense claims to knowledge; and, thirdly, his account of the controversy over the principle of extensionality in logic where the anticipation of contemporary doctrines is perhaps most remarkable. (Chisholm 1941: 371)

However, we have Sextus's own word that as a sceptic, whatever his own interest in the theories and doctrines current in his time, he himself subscribed to none of them. According to Chisholm's assessment, therefore, modern philosophers should be indebted to Sextus not for his careful statement of his own sceptical view, but for the detailed account he gives of the philosophical doctrines scepticism was exposed to at that time and of the arguments the sceptic used to combat them. Chisholm, however, sees Sextus not only as an expounder of doctrines, but also as a subscriber to them. Thus he attributes to Sextus the thesis that metaphysical objects (God, among others) do not exist "since we are unable to conceive anything which is non-empirical," and the doctrine that "indicative signs have no reference" (Chisholm 1941: 371), as well as claiming that Sextus opposed metaphysical statements on pragmatic grounds—that is, on the grounds that they were apt to engender futile controversy and would interfere with sceptical quietude.¹⁵

The close connection between twentieth-century empiricism and Sextus's Pyrrhonism is obvious. But it is unfair to portray Sextus as a supporter of any kind of doctrine stating that we have knowledge only of appearances or only of what is immediately given in experience. Phenomena in Sextus's terminology are indeed self-evident, but not in the sense of self-known. For we do not know anything simply insofar as something appears.

Chisholm remarks: "Although the sceptic does not deny appearances, he does deny the possibility of knowledge which refers beyond them" (1941: 377). It is a main point of Sextus's account, however, to make us understand that he neither denies nor affirms the possibility of knowledge, but lets the question remain open. It is true that Sextus does not deny appearances, in the sense of refusing to accept them; but he neither asserts nor denies *statements* such as "It is hot" or "I feel hot" or any other statement said to express what appears to him. Appearances are "beyond question" (*ibid.*), but not in the sense of furnishing or expressing knowledge. If they are beyond question, they are also beyond answer.

The Sceptic's Reference to the Existence of Opposite Views

Another misconception is that the sceptic's constant references to disagreements are a kind of argument, by appeal to particular cases, for a general conclusion that truth is beyond our grasp. Here we have both a misinterpretation of the sceptic's references to particular arguments and a miscalculation of his philosophical acumen.

The sceptic does not *expect* to sustain his *isosthenia*, he does not anticipate the outcome of an evaluation for and against, and his appeal to counterarguments is entirely ad hoc. Faced with a dogmatist who claims proposition *p* to be true, the sceptic's move would very often be to throw in the proposition "Not-*p* is true," and to suggest that the dogmatist defend *p* and attack not-*p*. But if the dogmatist now produces an argument, a pro-argument in relation to *p* or a counterargument in relation to not-*p*, it is natural for the sceptic to throw in what dogmatists with views different from the one he is facing have argued against. The enterprise is always experimental, to set one argument against another, and the origin of the arguments is itself of little importance. To find new, good arguments is no easy matter, and the sceptic cannot be blamed for making a start with those already available to him. It is therefore natural that in his works Sextus should constantly refer to disagreements between philosophers, listing different, more or less contrasting views on a great variety of subjects. But often he announces when he is leaving arguments found among dogmatists to offer arguments that have been invented by sceptics themselves.

Even painstaking students of Greek scepticism misjudge Sextus on this extensive listing of disagreement. Thus Victor Brochard (1887: 395) writes:

It is in its reasoning that scepticism fully reveals its weakness. It is clear, indeed, that there is only one condition on which the impossibility of the human mind's attaining truth could be legitimately inferred from the disagreement of opinions and of systems, namely that this disagreement could only be explained by the fact that there is no truth or that truth is inaccessible to us.¹⁶

But there is no inference of the kind "There is extreme disagreement between holders of opinions and systems, therefore it is impossible for the human mind to reach truth" to be found in Sextus's works. In the first place, the sceptic would not claim truth for either premise or conclusion separately, and second, he would not claim validity for the inference from premise

to conclusion. Suspension of judgment (cf. stage 4 in the sceptic's genesis) applies here too. If we found evidence of Sextus making the three claims, there would, of course, be reason to invoke the view so popular in accounts of Sextus that he was not very bright and most likely misrepresented greater sceptics.

Brochard's implicit view regarding the purpose of the selection of material referred to or quoted in the works of Sextus is a misrepresentation. The sceptic quite simply does not use disagreement as an argument for scepticism. He is much more tentative and judicious. He amasses arguments in the course of his perilous career. Although his counterarguments naturally tend to consist of already existing arguments—and in this sense he makes use of disagreements—he does not appeal to disagreement as such. He tries out counterarguments in concrete cases: a dogmatist asserts *p*, and the sceptic throws in, "How about so-and-so's counterargument *q*, against *p*?" This is very different from inferring the impossibility of finding truth from the existence of dogmatists holding that *p*, not-*p*, *q*, not-*q*, and so on.

Incidentally, it is also this failure to grasp the ad hoc nature of radical scepticism that underlies criticism that Sextus was a bad stylist and expositor. The translator of the Loeb Classical Library edition of Sextus's works, Robert Bury (1933, 1935, and 1936), remarks in his introduction that Sextus "wearies the reader by his way of piling argument upon argument for the mere sake of multiplying words—bad argument and good heaped together indiscriminately." However, it must be the uninformed reader Bury refers to, since he himself gives an excellent account of the character of Sextus's texts, indicating that they are not intended to be read word for word:

Obviously his books are not intended to be works of art, but rather immense arsenals stored with all the weapons of offence and defence of every conceivable pattern, old and new, that ever were forged on the anvil of Scepticism by the hammer blows of Eristic dialecticians. From these storehouses the Sceptic engaged in polemics may choose his weapon to suit his need; for (as Sextus naïvely observes) the Sceptic is a "philanthropic" person who spares his adversary by using against him only the minimum of force necessary to bowl him over, so that the weakest and most flimsy arguments have their uses as well as the weightiest.

(Bury 1933 : xlii)

This corresponds exactly with the interpretation I am proposing, except that it is difficult to see why Sextus should be considered naïve in his account of the sceptic's manner of arguing. Not only does it fit in very well with other

things he says, but even today meeting arguments with sufficiently strong, but not more than sufficiently strong, counterarguments is a sophisticated procedure. The kinds of arguments used depend on the status of discussion at the time at which the sceptic throws the argument into the debate (without participating in it). Therefore, a sceptical manual would need constant revision, new editions coming out from time to time. But no "bad" or weak argument should be left out if it is adequate in a given situation. Accordingly, Sextus's manual should not be read as a Platonic dialogue but as a reference work to be consulted at appropriate moments. As such, it is well compiled and efficiently enough organized.

Of course the procedure of considering every argument on its own merits is characteristic of all critical philosophy. It is in his continuing and pervasive suspension of judgment that the Pyrrhonist differs from the ordinary critical philosopher. And it is in this apparently willful refusal to believe or accept anything that those otherwise sympathetic with the Pyrrhonist's procedure have found the absurdity or impossibility of his brand of scepticism. If only this perverse element were removed, the critical philosopher would find in the Pyrrhonist a brother in arms. Thus Hume (1951), who denied that there could be "any such absurd creature . . . who had no opinion or principle concerning any subject," allowed that a moderate scepticism "may be understood in a very reasonable sense, and is a necessary preparative to the study of philosophy."

Bertrand Russell (1967), too, has favored a criticism of knowledge that is not "the attitude of the complete sceptic." Absolute scepticism is unreasonable; rather it is "Descartes' 'methodical doubt,' with which modern philosophy began . . . [that is] the kind of criticism which we are asserting to be the essence of philosophy. His 'methodical doubt' consisted in doubting whatever seemed doubtful; in pausing, with each apparent piece of knowledge, to ask himself whether, on reflection, he would feel certain that he really knew it." Such criticism, thinks Russell, constitutes philosophy. But there is some knowledge, for example, of the existence of our sense data, which to him appears "quite indubitable, however calmly and thoroughly we reflect upon it. In regard to such knowledge, philosophical criticism does not require that we should abstain from belief" (*ibid.*, p. 87). We should not reject "the beliefs which do not appear open to any objections, however closely we examine them" (*ibid.*, p. 88).

Russell's exposition is convincing only so long as he refrains from giving examples of the kind of conclusive knowledge he means, that is, so long as he abstains from applying his principle concretely. However, the various concepts of sense data are of course highly controversial, and calm and thorough reflection is apt to disclose that any highly conceptualized belief in sense data is indeed open to objection, especially when made precise in its relation to conceptual frameworks of psychology and epistemology. What Russell seems to imply is that beliefs that are not open to any existing objections are not open to any objections.

Of course, the complete sceptic in Russell's terms cannot be the Pyrrhonist according to Sextus; the Pyrrhonist would not require us to abstain from a belief to which we could find no objection, however calmly and thoroughly we reflected. He would simply contend that he had not, as yet, come across a belief based on an established truth. Should he find such a true belief, of course, his suspension of judgment could no longer be sustained by a balance of arguments, and he could then no longer be a sceptic of the kind described. Being a sceptic of that kind, he could *not* have found a belief immune to objection.

The continuation of Russell's account, on the other hand, could be safely acquiesced to by the Pyrrhonist.

The criticism aimed at, in a word, is not that which, without reason, determines to reject, but that which considers each piece of apparent knowledge on its merits, and retains whatever still appears to be knowledge when this consideration is completed. (Ibid., 88)

If there is nothing left over, nothing will be retained.

The Mature Sceptic: A Moderately Keen Seeker and Doubter?

If the sceptic's suspension of judgment regarding the finding of truth must be based on his failure to, as yet, find decisive arguments for or against, the question arises as to how much we should expect of the sceptic in his efforts to overcome this failure. Are there minimum requirements? In cases in which the sceptic takes no steps at all to find arguments, might not his failure to be convinced be a matter for reproach? Should we not regard him as a sceptic only by default?

Here we must first recall that an essential feature of the sceptic we are describing is his openness of mind. According to stage 7, *he is a seeker*, and since this, like the ad hoc nature of his scepticism, is a matter of definition, it is acknowledged that we are in any case concerned with someone who shows a degree of interest in finding truths. Consequently, our sceptic cannot be accused of evading the issues. He is not continually racking his brain for arguments—as indeed is unlikely in the case of one who does not expect to find the truth—but he must at least be open to argument and even to conviction. Arguments always interest him, and if he is someone who does not expect to find the truth, this is only because past disappointment has destroyed his previous optimism about finding it. It is no part of the definition of the sceptic that he is constitutionally either unprepared to face decisive arguments or impervious to their force.

The question remains, though, as to whether openness itself is enough. The normal view is probably that it is not, for the sceptic is normally conceived as a doubter. Indeed, it is thought a valid objection to scepticism that one *cannot* persistently doubt all that the sceptic doubts. To be a sceptic, according to this view, is necessarily to be in a perpetual state of indecision; a moment's confidence or certainty is enough to burst the fragile bubble, to disqualify one as a sceptic.

But there is no reason why we should think of the sceptic in this way, as one who should, ideally, hesitate before every step in order to question whether the assumptions on which it is based are valid. Indeed, before raising such a question, the sceptic would want to know what the assumptions were, or whether there were any, and what was meant by *assumption* in this case; and insofar as answers to such questions involve explicit and more or less complicated conceptualizations, all of this would go beyond what the sceptic felt he had any settled opinion on. Any display of confidence, as far as he is concerned, may or may not be a matter of assumptions. At least it is not obvious that the sceptic must avoid trust and confidence, or that his behavior must be characterized by doubt and indecision. Perhaps, as we shall see in the next chapter, there is no real call to consider the sceptic a doubter at all.

There is nothing particularly vital in our terminology at this point. It could be perfectly reasonable to retain the image of a sceptic as a doubter rather than a truster; this itself will not lead to misconceptions as long as one remembers that in the history of thought, the greatest sceptics were

also great champions of trust and confidence and of common sense *in action*—however brutal they were in criticizing ordinary thinking in its use of the notions true or false, valid or invalid.

In answer to the question of what and how much we should expect of the sceptic, I see no grounds for asking more of him than of dogmatists. A man who adheres to the doctrines of Plato, Spinoza, or Kant, or has a more or less individual outlook of his own, and who makes truth claims or claims of objective validity, is open to criticism if he does not from time to time consider and reconsider arguments against his position. But it would be preposterous to ask him to do this daily, especially if he is not a professional philosopher.

Applying the same norms to the sceptic, one must surely allow that the exercise of suspension of judgment as a mental act need not go so far as to completely color the sceptic's private life. There is no need for him to consider judgments involving truth claims every day and come to the result that there is no decisive argument pro or con. Although there will certainly be occasions for suspension of judgment, there will be no constant need for it.

Similar considerations apply to the sceptic as a "seeker." He is counted a seeker because he has not found truth but leaves open the possibility of finding it. Nothing is prejudged in the idea of his openness about how eager he should be to find the truth in any definite matter. Indeed, as we suggested, his main noncognitive motivation for finding truth is no longer there: the peace of mind which he was seeking is already found. There remain cognitive and practical motivations, and the strength of these may vary among different sceptics.

The basic complaint of the Pyrrhonian sceptic against all others (the dogmatists, including the Academicians) is that they are guilty of rashness (haste, recklessness, *propeteia*). They leap precipitately to conclusions about truth, falsity, knowledge, or certainty. As against this, one should *wait* until arguments for are decisively stronger than arguments against, or vice versa. (In order not to be accused of dogmatism, the Pyrrhonist will refrain from claiming the truth or objective validity of any point in the logic of argumentation. He speaks about his own behavior in discussions in terms of propensities, and the like. Among the examples of rashness Sextus mentions is that of deciding on the question whether something can be grasped—with certainty—or not [*Outlines*, bk. 1: 237].)

Since the sceptical phrases we have mentioned are expressive of the sceptic's state of mind when confronted with dogmatists, it is doubly misleading to say without qualification, as Brochard does (1887: 332), that their function is to "express his doubt," and to portray the sceptic as being more in doubt than others. It is important to distinguish doubting from suspension of judgment. Suspension of judgment is the basic trait of the sceptic when confronted with dogmatic assertions. The question of how much, how often, and in what sense doubt must, or is likely to, accompany or precede the suspension of judgment, is an open question. There is no reason at all to postulate a *state of doubting* as characteristic of the mind of one who suspends judgment. Suspension here is not a process; it is an absence of judgment concerning truth. Yet it is just this identification of doubt with suspension of judgment that so often mars references to the Pyrrhonic sceptics. Not that in the genesis of a sceptic, doubt and indecision play no part; indeed, the gifted people in Sextus's narrative were led to scepticism precisely by the disquieting doubt and indecision induced in them by the contradictions in things, and the *ataraxia* that Sextus describes is intended as a means of eliminating just that state of disquiet.

The Sceptic: A Philosopher?

For every hundred references in the literature to Academic scepticism (negative dogmatism), there is scarcely one to Pyrrhonism as described by Sextus. And of the many references to Pyrrho and Sextus, few do not hint at negative dogmatism.

One main reason for this is an apriorism and universalism that has deep roots in nearly all philosophical literature. Because the sceptic does not state a priori that knowledge cannot be reached, that knowledge is impossible, or because he does not adduce arguments against the possibility of knowledge in general—but only throws in particular arguments against particular knowledge claims—he is not counted a real philosopher. Instead, he is summarily referred to psychologists and psychiatrists. Because he does not meet them on their own battlefield—apriorism and universalism—real philosophers are not supposed to worry about him.

To be fair, the philosophers have a stronger point: the sceptic of the pure Pyrrhonist community ventures no proposition whatsoever that in-

cludes a truth or probability claim. Surely a person who is propositionally mute places himself outside the philosophical community. Or does he? If a sceptic has developed his suspension of judgment and has thrown in arguments against all the philosophical doctrines of his time, the philosophers may still refuse to take his scepticism seriously simply because the sceptic does not claim that he will continue to retain his attitude. Scepticism seems to be ad hoc, provisional, transient, or even spasmodic.

There are two answers to this. First, adherence to any doctrine is liable to lapse. However certain a Spinozist or Neothomist may be that he will never alter his views, a change is not precluded. The sceptic, of course, declares nothing. But why should this make a change more probable in his case? Why does the ad hoc nature of scepticism need to affect the matter—the mature sceptic says no more than that *up to now* he has not been brought out of his *epoché*, but that this might well occur at some time in the future. The fact that the sceptic is more willing than most to acknowledge the possibility of his own defection does not make this event more likely in his case than in others. Second, scepticism does not really deserve to be called provisional, transient, or spasmodic, because there is nothing in it that conceptually supports these characteristics (and when we come down to considering views in terms of the actual behavior of their exponents and adherents, we find that any bent of mind may spend itself or wither and any doctrine be abandoned or transcended).

There is no argument that is *specifically* antisceptical. When the sceptic throws an argument into a philosophical debate, and a philosopher finds it worth consideration, the sceptic may support it or fight it with a set of arguments. In doing so, however, he argues neither for nor against a general sceptical “position.” But if he tends toward *isosthenia*, his development may well continue in the way described by Sextus, and he may end up as a mature sceptic (in our terminology).

As to whether scepticism counts as a philosophy, if we accept as a necessary condition of philosophy that the thing considered must contain at least one proposition or at least one doctrine explicitly claimed to be true or probable, then scepticism is not a philosophy. The question is largely terminological, but even if we adopted this not at all traditional way of speaking, there would still be room for calling scepticism a basic philosophic attitude or an existential-philosophy (with a hyphen!), and the sceptic a (genuine) philosopher.

Philosophical tradition embraces philosophers whose "philosophy" does not contain a single proposition with a truth claim, or at least whose program or intention was of that character. From and including Socrates, there have been propositionally innocent philosophers through all periods up until the logical empiricists and various Anglo-American movements inspired by Wittgenstein. It is a commonplace in various quarters that philosophy is really a kind of activity—for example, that of clarifying meanings. And although logical empiricists mingled with scientists, they insisted that as philosophers it was not up to them to take a stand for or against propositions in the nonformal sciences, whereas the formal sciences, for their part, were so conceived as not to contain any propositions.

But terminology may not, after all, be very important at this point, and so long as we may call scepticism a philosophical attitude or existential-philosophy, and its articulate representatives philosophers, I shall not insist that Pyrrhonic scepticism be called a philosophy. Perhaps "an ingredient of a philosophy" would be an apt description since the genetic characterization may be satisfied by persons showing deep differences in outlook and basic attitudes.

It is pertinent to ask whether the sceptic has ever explicitly questioned his own at least implicit acceptance of the distinction between true and false. The mature sceptic sees how in everyday life people use "I know that *p*," "*p* is perfectly certain," "I cannot be mistaken" in a very loose fashion, with an extremely low standard of evidence compared with that required, for example, in geometry. He himself is also a great exponent of loose talk insofar as he is conceptually unpretentious and without any definite conceptual framework. Why, then, does he apparently not join in the *loose* use of the terms *true*, *certain*, *real*, and *known*? It must be that his development has somehow made these terms stand out separately from the rest. Because of this, he can honestly say that as a mature sceptic he is "still seeking." For he has retained conceptualizations of *true*, *certain*, *real*, and *known* that permit him to suspend judgment in cases in which everyday uses of the terms would force him to exclaim "This is true!," "This is perfectly certain!," "This is how the thing really is!," or "This I know!"

Suppose, however, that a sceptic were to give up these remaining conceptualizations of the seeker, the zetetic; what kind of philosophy would one have then? The sceptic, it seems, would cease to be a sceptic and come

close to being a later Wittgensteinian, at least according to one main interpretation of Ludwig Wittgenstein's *Philosophical Investigations* (1958).

According to that interpretation, there already exists a definite "logic" of the terms *true* and *known*, and this logic is such that there are a great many things we know perfectly well; for the language we use does not provide room for meaningful doubt here. Moreover, a science of language, a conceptualized doctrine *about* the logic of these terms, is not needed because the pertinent facts can be shown, pointed to. Because philosophy leaves everything as it is, its conceptualizations, including the distinctions between true and false and between known and unknown, cannot result in any change in the logic of the everyday use of the terms it has borrowed.

In regard to what evidence we require in order to know, there is a term *conclusive evidence* that also has its own logic of use. This can be shown by asking, *When* is it *legitimate* to say "This evidence is conclusive"? The question "Is evidence ever conclusive?" cannot be raised. The distinction between conclusive and nonconclusive is already built into the language, and this implies that there is a proper use of *conclusive* as well as of *inconclusive*. So if someone were to come and say that in every case in which *conclusive* has been used, *inconclusive* was the appropriate term, he would clearly violate the existing logic of the distinction.

Thus, the mature sceptic is only a partial conformist; he inevitably encounters opposition when responding sceptically to requests to subscribe to the absolutes of his community—the proclaimed truths, the propositions everyone *knows* must be true. The Wittgensteinian in the above interpretation, on the other hand, is an enlightened, but total, conformist. Even when it comes to the basic zetetic terms, he asks, What is it *legitimate* to say? What am I *justified* in saying? What are the standards of the community in assessing evidence? What is *socially* acceptable as conclusive evidence?

Although the mature sceptic does not participate in the philosophic debate, we have seen that he nevertheless throws arguments into it. He does not rule out the possibility that he will eventually become a participant—if a dogmatist can convince him of the truth of at least one proposition. In any case, he accepts the concepts and arguments of dogmatists as meaningful and their views as possible views. Although the Wittgensteinian portrayed above resembles the mature sceptic in not participating in the debate, in all other respects the difference is profound: The Wittgensteinian does not

throw in arguments, and he definitely rules out the possibility of active participation. He also does not accept the concepts and arguments of dogmatists as meaningful, and he rejects the possibility of their views being true doctrines.

Defining Scepticism

In this chapter we have tried to clarify certain distinctions made by Sextus that are vital to a grasp of the significance of Pyrrhonism as a philosophy or a philosophical attitude. These distinctions, between Academic scepticism and Pyrrhonism, between sceptical and dogmatic ways of announcement, and between suspension of judgment and doubt, all play an important part in the credibility of Sextus's portrayal of the sceptic. From the few but typical references to Sextus in this chapter, it will be seen how far extant accounts and evaluations are from taking what he says seriously. Perhaps it is the prevailing philosophical preoccupations, now and in the past, that have done Sextus the greatest disservice by obscuring the value of the distinctions that he is at pains to stress. Consequently, Pyrrhonism tends to be regarded as an extreme scepticism, at best an impracticable ideal, and to be classified along with other less radical, but supposedly more possible, forms under definitions that take little account of what Sextus actually wrote. This is true even of Richard H. Popkin's formulations of scepticism in his excellent contribution to the *Encyclopedia of Philosophy*. Popkin (1967: 449) opens, as is traditional in encyclopedias, with a vague formulation suggesting some kind of definition: "Skepticism, as a critical philosophical attitude, questions the reliability of the knowledge claims made by philosophers and others." But such a formulation fails to do justice to Pyrrhonism. Pyrrhonism is not just an attitude of epistemological questioning; any adequate conception of the kind of questioning that it is must take account of the distinctions we have mentioned, as well as such aspects as *ataraxia* and trust.

Popkin's next, more precise, formulation, that philosophical sceptics "have questioned whether any necessary or indubitable information can actually be gained about the real nature of things" (*ibid.*), though applicable to Pyrrhonism and some other forms of scepticism, applies equally to any philosophy that criticizes necessity and indubitability or concepts of real

nature. Carneades, on the other hand, was a sceptic who, although he questioned necessity, and perhaps also indubitability, seems to have believed in differences in probability. It is clear—and of course Popkin does not deny this—that the appraisals and arguments appropriate to probabilists differ greatly from those that apply to Pyrrhonian scepticism.

Popkin continues: “Skeptics have organized their questioning into systematic sets of arguments aimed at raising doubts” (ibid.). But for the Pyrrhonian sceptic, as a seeker of truth, it would be inappropriate to mention a specific aim of any kind, except perhaps as just one of a cluster of aims. It is true that the mature sceptic tends to influence the dogmatist in the direction of scepticism, and this may take the form of inducing him to doubt. However, in doing so, he is only following his so-called natural impulses of sympathy, as Sextus would say in his capacity as metasceptic. As for his own future, the mature sceptic is naturally on the lookout for decisive arguments that might bring his scepticism to an end. But here the listing of arguments should, strictly speaking, be regarded as having the heuristic aim—if it can be said to have an aim at all—of eliciting new and better arguments through which to preserve his *ataraxia*.

Finally, in formulating a notion of extreme scepticism, Popkin says: “Extreme skepticism questions all knowledge claims that go beyond immediate experience, except perhaps those of logic and mathematics” (ibid.). Sextus and others, however, have questioned even logic and mathematics. If my previous analyses are adequate, the Pyrrhonian questions all knowledge claims, including those that, in a more recent terminology, may be called “knowledge claims that do *not* go beyond immediate experience.” The Pyrrhonist “acquiesces in the appearances” not because of any truth or adequate cognitive status that he attaches to the “angelic” messages that convey the appearances, but because such messages convey no knowledge claim at all. A scepticism that contains knowledge claims of or about immediate experience is not an extreme scepticism, at least along one dimension of comparison. But of course a main difficulty in the way of any attempt to delimit an extreme scepticism is the low degree of comparability of extremes of scepticism along the different dimensions that we referred to at the beginning of the chapter. A scepticism that makes no positive claims at all might, for example, be thought to be less intense than one that denied the possibility of knowledge beyond immediate experience—for at least

PYRRHO'S SCEPTICISM ACCORDING TO SEXTUS EMPIRICUS

the former scepticism allows for a possibility that the other rejects. Perhaps the word *extreme* is best avoided; it would certainly be very misleading to describe the Pyrrhonist himself as an extremist of any kind. It might be appropriate, on the other hand, to regard him as a radical, for his scepticism, if not extreme, is extremely thorough and consistent.

II

The Psychological Possibility of Scepticism

Introduction

One of the most common objections leveled against scepticism is that however consistent it is in itself, it cannot be serious. Sceptical doubts are not real doubts but only theoretical. Furthermore, it would be impossible to put sceptical theory into practice, for to be consistently sceptical, so it is held, would be to sentence oneself to a life of inactivity; as soon as one begins to do something, one begins to take certain things for granted, to believe in them and hence not to doubt them.

The assumption that scepticism, though rational, is patently untenable is fairly widespread and sets the pattern for much contemporary discussion. For example, Alfred J. Ayer (1956: 78) in *The Problem of Knowledge* writes: "No doubt we do know what [the sceptic] says we cannot know, we are at least called upon to explain how it is possible that we should." From this perspective, the problem of knowledge has become the problem of explaining—in the face of the so-called sceptic's arguments to the contrary—how knowledge is possible. In other words, scepticism is identified with an argument to be rebutted if we are to justify our claims to know anything at all. The sceptic is a good logician, but somewhere or other there must be a flaw in his argument, either in the process of reasoning or in his premises. For what could be more obvious than that there are at least some statements that we know to be true? And what could be a more obvious demonstration of the sceptic's de facto acceptance of this fact than his actual linguistic and nonlinguistic behavior?

Is Scepticism More Logically Than Psychologically Impeccable?

Some contemporary philosophers advance this objection by saying that (what they call) scepticism, though logically consistent, is psychologically im-

possible: a person can pretend to be, but cannot really be, a consistent sceptic. The most famous exponent of this view, Bertrand Russell, has himself been intimately and personally engaged in questions of scepticism. He puts the matter thus: "Scepticism, while logically impeccable, is psychologically impossible, and there is an element of frivolous insincerity in any philosophy which pretends to accept it" (1948: 9; cf. p. 196).

However, Russell, in line with most recent discussions of scepticism, is thinking here not of the sceptical way of Pyrrho, as outlined by Sextus, but of a narrow and much less radical trend of sceptical thinking that he terms "sceptical solipsism."¹ Russell finds that it is psychologically impossible in practice to doubt the existence of other minds and of the external world. But in coming to this conclusion, he applies concepts of "other minds" and "external world" that presume a dualism of a particular and not altogether uncontroversial kind.² The Pyrrhonist, however, is not bound to join issue on the question of the existence of other minds or of the external world as conceived by Russell, insofar as these concepts presume a dualism that he sceptically declines either to accept or reject. If he says "The stone is hot," he will not, in the normal course of events, implicitly distinguish between an internal and an external world and on the basis of this distinction locate the stone's heat either in the external world, as opposed to, say consciousness, or in an inner mental world. If led into a discussion about whether the heat really resides in the stone or in the mind, he remains unperturbed, declining to offer judgment. It must be remembered that the most important effect of the sceptic's *epoché* is to insulate him from philosophical discussion. Such discussion, to be technically satisfactory, must be relative to certain conceptual frames, that is, to systems of definitions involving clear-cut distinctions and rules for interpreting the key terms, and these must be adopted in order to get a discussion *pro et contra* going. By maintaining an *epoché* in relation to conceptual frameworks, the sceptic simply refuses to get going.

Sextus's picture of the sceptic is thus quite different from Russell's insofar as the Russellian sceptic is apparently unable to let himself trust and have confidence in a crude everyday realism into which such sophisticated problems as these do not intrude. Such trust and confidence at the philosophically uncommitted level is, of course, precisely what we would expect from the Pyrrhonian sceptic, at least if we are to take Sextus seriously when he characterizes the "loose" ways of talking employed by the sceptic in expressing his mind undogmatically (cf. my discussion on pp. 9–11).

The formula "Scepticism is logically impeccable but psychologically impossible" therefore fails to do justice to the strengths and weaknesses of Pyrrhonian scepticism. Indeed, if the foregoing exposition and interpretation are correct, we should be entitled to adopt a very different formula: "Scepticism is psychologically impeccable and logically invulnerable."

The thesis that scepticism is impeccable psychologically—in other words, that it is psychologically possible, perhaps even in some cases desirable, to be a sceptic—may seem harder to defend than the thesis that it is logically invulnerable. To be susceptible to charges of inconsistency, scepticism would have to include at least two contradictory propositions; but, as we have seen, it includes no propositions at all. Scepticism is not inconsistent, but it is not consistent either. The question of inconsistency is not so easily disposed of however. As we shall see, the criticism that scepticism is psychologically impossible in part depends on the supposed objection that whatever the sceptic may or may not say, his actions betray implicit allegiance to beliefs and assumptions. In short, these actions falsify the description of him as a person who suspends judgment on all things.

Do the Sceptic's Actions Betray His Dogmatism?

It is objected that by persistently withholding judgment sceptics fly in the face of their own experience and practice. The basis of the objection is that any display of acquiescence or confidence on the part of the sceptic is tantamount to his acceptance of some proposition.

Thus, for example, the mere fact that I stride confidently into a room might be said to be tantamount to accepting the proposition "This floor will bear my weight"³—in the same way that quickly withdrawing my foot after ominous creakings might be regarded as tantamount to my rejection of the proposition, or that setting each foot down tentatively and with great hesitation might be regarded as tantamount to my withholding it.⁴

According to this assumption, the Pyrrhonist's behavior would be the measure of his ability to remain a sceptic. Despite his failure to make positive or negative assertions, there would still be a basis for attributing inconsistency to him; for his actions would imply propositions, and the manner of his actions would determine his epistemic attitude toward the propositions. If not necessarily inconsistent, the sceptic would remain sceptical only so long as he remained hesitant. And the world and human nature be-

ing what they are, he would be prone to so many frequent lapses into dogmatism that to describe him as generally sceptical rather than dogmatic would be misleading, to say the least.

This argument might be given stronger forms. To act at all, it might be said, involves some belief or other no matter how diffidently one behaves. One cannot act consciously without implicitly accepting the truth, at least temporarily, of some proposition. For example, whatever one's reservations concerning the strength of the floor, one accepts that one has such reservations. If and when they are borne out, one will tend to move downward rather than upward, and if one intended to achieve something by setting feet on the floor—other than, say, merely testing its strength—then this cannot be achieved exactly in the way one was hoping it might. According to this stronger objection, the consistent Pyrrhonist would be resigned to a life of complete inactivity. There might, however, be an even stronger form of the argument in which it is claimed that the very act of contemplating oneself and one's own inactivity would require implicit acceptance of propositions. If the argument were sustained, the sceptic, so long as he was conscious, could never free himself from a fundamental dogmatism.

What is the relation between acquiescence and confidence, on the one hand, and the acceptance or rejection of propositions on the other? Let us take up this question by considering the relation between action and belief.

If a person claimed to hold certain moral beliefs, for example, and made no move to act in conformity with them in situations in which the beliefs were clearly applicable, his claim would be justifiably disputed. And if a navigator claimed to believe that the earth is flat and continued to employ calculations and instruments whose proper use he acknowledged depended on the assumption that the world is round, he would be justifiably suspected of being less than honest about what he believed. Thus, it does seem that a person's behavior can tend to show whether he indeed has those certain beliefs he professes to have. Moreover, with beliefs implying some fairly specific patterns of behavior, the absence of action falling into such patterns will, saving exceptional circumstances, not only tend to show but also conclusively reveal the absence of the corresponding beliefs.

Some, like Gilbert Ryle, would assert that believing is never merely "propositional," but a matter of being prone to *do* certain things; just as believing that the ice is dangerously thin is not simply a matter of telling oneself and others that it is so, or of acquiescing in the assertions of others

to that effect, but also “to be prone to skate warily, to dwell in imagination on possible disasters and to warn other skaters” (1949: 135). If “proneness” is to be understood behaviorally, the matter is settled; but even without that we can say that if to believe something is at least in part to be *disposed* to do this rather than that, then, lacking the relevant dispositions, one would not have the belief.

The question now is whether it also follows that if one does not have the belief, one cannot act in the manner of a person who does. For if it does follow, then the sceptic is debarred from all behavior that can be construed in terms of beliefs and their corresponding dispositions. What William James said of religious belief would apply to all meaningful activity. James stated that “since belief is measured by action, he who forbids us to believe religion to be true, necessarily also forbids us to act as we should if we did believe it to be true” (1957: 108 fn.). If this were to be applied generally, not to believe in the truth of something would be to deny oneself the chance to engage in whatever actions were consequent upon the belief in its truth.

There is a context in which one may be said to act in the manner of someone who holds a certain belief when in fact one is merely pretending to have that belief. Here, acting in the relevant manner is not only allowed but, one would suppose, positively required. However, the sceptic can hardly be let off on the supposition that he is pretending to hold beliefs. Generally speaking, his actions must be seen to arise from genuine dispositions, from proneness, and so on. In pretending to have a belief, on the other hand, it is precisely the *absence* of the relevant dispositions that the behavior is supposed to hide. What we need to ask, therefore, is whether it is possible to have the dispositions to act in certain ways without having the relevant beliefs that generally accompany them.

The notion of experimentation may help us here. Why should one not be able, for example, to try out beliefs much as one tries on clothes? And try them out to the extent of “putting on” the appropriate dispositions? The experimentation, while it lasted, could be indistinguishable, at least externally, from actual commitment to the beliefs, and the experimenter himself might even become, temporarily, another kind of person, finding himself talking and acting in different and not always premeditated ways—ways that, planned or not, he would nevertheless say he was not committed to and did not “own.” Thus, however much the experiment might resemble the real thing, the experimenter himself does not lose sight of the experimen-

tal nature of the exercise and, most importantly, while experimenting, he is *ex hypothesi*, not yet committed, not yet content.

But how far can the sceptic be understood as an experimenter? If we recall our earlier definitions (see pp. 3–6) of the Pyrrhonist, it may seem that he cannot be regarded in this way at all. We said, for instance, that he found no better grounds for accepting the arguments in favor of a doctrine than for accepting those against it. But the experimenter will surely begin his search by selecting the likeliest candidates among the propositions available to him, at the very least preferring some proposition or other to its negation. Thus, to act experimentally would seem to require a preference for propositions whose grounds for potential acceptance do seem stronger than those for potential rejection. To accord with this account of the Pyrrhonist's suspension of judgment, then, the required analogy would have to lack any purposive and selective component; in terms of the clothes analogy, we would have to compare the Pyrrhonist's assumption of beliefs to a person putting on clothes for amusement and without any serious thought to their style, quality, or general suitability. But this kind of transaction with beliefs could hardly explain the sceptic's continued adaptation to, and confidence in, the world around him.

Sextus, however, defines the sceptic's suspension of judgment as a state of mental rest owing to which he neither denies nor affirms anything (*Outlines*, bk. 1: 10), and we said the sceptic (cf. pp. 4–5) was one who has so far not found sufficient weight of arguments *pro* or *contra* to justify a decision about what is true or even about what is probable. But if he has not yet been able to decide what is probable, surely he must have been equally unable to decide, in the case of any proposition, that it and its negation are *equally* probable? In that case, how can the sceptic find that the arguments for a proposition are no stronger than those against it?

That Sextus is not inconsistent here becomes clear when one realizes that in finding a balance between arguments for and against, the sceptic is not arriving at some calculation of the respective weight of the arguments he has arraigned for and against a proposition and on the basis of this calculation justifying his disinclination to offer judgment. It would be as incorrect to interpret the Pyrrhonist in this way as it would to say that in failing to find any arguments strong enough to convince him, he is measuring them against some standard that they must conform to before he will accept them. His suspension of judgment is not based on some specifiable short-

coming in the arguments presented to him; nor is the balance of the arguments something that he works out according to any theory or rule of thumb. The fact that he does not find the arguments for a proposition strong enough to overcome the force of the arguments against it consists in nothing more than the fact that he, personally, is not impelled by them sufficiently to be able to discount the force of the counterarguments. The sceptic refrains from affirming or denying simply because to stand firmly by some proposition or its negation would be to forfeit an option he feels he must retain if he is to preserve his peace of mind. He is the kind of person who if he affirms or denies something opens himself to the very doubts that led him in the first place to favor suspension of judgment. As we remarked earlier, the question of the possibility of scepticism is really no more than the question of the possibility of there being such a person.

Sextus talks of the sceptic as one for whom the balance between *pro* and *contra* is not disturbed (see point 3, p. 4). It would seem quite possible for the more inquisitive and venturesome sceptic who is willing to take a chance with his scepticism to prefer one proposition to another, experimentally, without disturbing the balance. The only relevant measure of whether, and how far, a sceptic can do so is the absence on his part of compulsion toward one side at the expense of the other. The degree to which he can safely experiment with a belief without succumbing to it, and hence forfeiting his option, will be a matter of his personal psychology.

But the main difficulty is that not all a sceptic does can be regarded as experimental. To be able to experiment with a belief, one must first have considered the belief as a possible truth. But what about all those actions that actually cannot correspond to beliefs adopted in practice simply because they are not adopted—because they do not even correspond to envisaged possibilities? The sceptic who walks into a room may or may not be experimenting with the belief that the floor will support him, but when he brushes sweat from his brow, after having crossed safely to the other side of the room, he may very well be expressing relief that undesirable possibilities were not realized. Such actions could not usually be said to correspond to envisaged possibilities, but they would have to be viewed as envisaged possibilities before the sceptic could be accused of being unwilling to stand by the beliefs they imply. Thus, the explanation of the sceptic's actions as experimental does not support a general defense of the possibility that the sceptic is continuing to act as if he believed in certain truths. Whatever the

THE PSYCHOLOGICAL POSSIBILITY OF SCEPTICISM

sceptic says, or does not say, his own more or less unconscious acts speak for themselves and proclaim his beliefs. But if his actions say what he himself will not say, his silence is wholly gratuitous.

But why should a person's more or less unconscious acts be described in terms of the adoption of beliefs at all? Why should a person's unquestioning behavior be understood as putting him, so to speak, automatically on one side or the other of a contradiction? Indeed, according to some definitions of "belief," there would be cases in which it was illogical to regard believing as "propositional" at all. Russell, for example, has defined "belief" as denoting "a state of mind or body or both in which an animal acts with reference to something not sensibly present." Explaining further, he says: "When I go to the station in expectation of finding a train, my action expresses belief. So does the action of a dog excited by the smell of a fox" (1948: 129). Assuming the excitement of the dog to be as nonpropositional as any unconscious gesture on the part of the sceptic, why should the sceptic's unconscious actions be considered as tantamount to "propositional" beliefs when the dog's patently should not? Would it not be as incorrect to charge the sceptic with inconsistency here as it would to accuse the dog of dogmatism?

Such broad definitions of belief, however, may raise objections. We might prefer to say that belief is always propositional and that the confident behavior of beings incapable of formulating propositions should never be described as believing. A man can believe, but a dog cannot; moreover, even if a man always, to some extent, behaves confidently without prior formulation of and taking a stand on propositions, he is able, as the dog is not, to draw the correct consequences from his own behavior and to see that it does, if not necessarily amount to belief, at least compel acceptance of certain beliefs once the relevant propositions have been formulated. Thus, on entering a room, a man can reflect on the fact that the floor supports him, and though perhaps still denying that his confident entry into the room amounted in itself to believing anything, he may find himself forced to conclude that the proposition that the floor can support him is true. But why stop here? If the events in one's life compel acceptance of successions of propositions, must not one's unquestioning reliance on innumerable everyday details be itself explained by this continual canceling of licences to hold options on pairs of contradictory statements? Surely, our unconscious confidence and trust are a kind of summing up of our successes and based on acceptance of

certain general propositions (for example, the proposition that everyday details can mostly be relied on, or that only in exceptional and usually easily identifiable cases floors are not to be relied on).

If there were no sense in which the sceptic could acknowledge the reliability of things, either to himself or to others, it would indeed be hard to defend him. If he must always find it inappropriate to say things like "It held!", "Of course I didn't think it might give way," then we should want to know why he continued to behave as if he did find things reliable. If his silence is to be more than "official," we should probably regard it as pathological, as a fear of *saying* anything, rather than an expression of anything approximating a genuine sceptical attitude.

However, if Sextus is right, the Pyrrhonist is not at all barred from acknowledging the appearances, either to himself or to others; he, like everyone else, may utter expressions appropriate to the appearances when the situation calls for him to do so. Sextus, we recall, distinguishes between affirming the truth of what one says and merely acquiescing in the appearances. By making provision for the possibility of a kind of verbal assent to appearances, Sextus would allow that the sceptic may convey in words what *appears* to him, but in a way that does not amount to an assertion in the sense in which to assert something is positively to take a stand on one side or the other of a contradiction (cf. p. 8). Thus, if something feels cold to me and I say "It feels cold," I may be doing no more than publicizing the appearance; ideally my words are then simple effects of my states of perception, unprocessed by interpretation and conceptualization (including any conceptualization to the effect that this is all they are). I may say "It seems cold" and yet with perfect consistency neither affirm nor deny the *proposition* "It seems cold." Similarly, with utterances like "I wouldn't walk on the floor unless I thought it would hold me," it may be quite consistent to regard these utterances as appropriate to the occasion and yet deny that the act of walking on the floor either implied or compelled acceptance of the proposition that the floor was able to support one's weight.

A sceptic, according to the kind of distinction Sextus indicates, may acquiesce, at the time or retrospectively, in his normal and unimpeded entry into the room; he might even publicize it in the form of a running commentary, saying things like "Now I'm walking over the floor, a few creaks, but everything seems all right. There, I've made it!" But in using these words, he is only conveying his impression of what happens; he is no more

stating that a series of propositions are true than, when he recalls the events later on, he is entertaining propositions to the effect *that* such events occurred. If the context should call for the latter, he might refuse to be drawn to say that as for taking a stand in favor of some proposition to the exclusion of its negation, he feels that in the nature of this special kind of case he would rather not commit himself. To assert that something is true is one thing; to give one's impression is quite another. In the former case, one makes use of clear-cut distinctions and concepts, some of which (as will appear in chapter 4) are awkward, even impossible, to put into practice at all; while the latter case is no more than, as it were, letting the events speak for themselves—a case in which the speaker functions “angelically,” as no more than a messenger of the appearances.

The substance of the sympathetic metasceptic's case can be summed up as follows. Confident behavior, including verbal behavior, is one kind of event among others. But just as verbal expressions of confidence are not necessarily expressions of statements to the effect that one is confident, so confident action in the world is not implicitly a matter of affirming that something is the case. Consequently, in refraining from taking a stand retrospectively on his own confident behavior and successes, the sceptic is not prevented from giving retrospective expression to his confidence. Retrospective expressions of confidence are no different from any other expressions of confidence; there is as little basis in them as in the sceptic's confident actions to support the allegation that he is not a sceptic. His confidence neither implies nor compels in him a commitment to the truth or falsity of propositions.

The strength of the metasceptic's case is suggested by the very difference between acting from impulse and habit, on the one hand, and both formulating propositions and accepting or rejecting them, on the other. They are different activities, if not altogether, at least in degree of complexity and extent of commitment. Moreover, it is impossible to infer one's commitment to the truth or falsity of propositions from observation of one's own behavior, even verbal behavior. How would we even go about the task of identifying the supposed propositions on the strength of the behavior, or locate the concepts in terms of which they are formulated? If it is said that you cannot act without a world in which to act, and that therefore any action on one's part involves the assumption that there is a world, it need only be pointed out that not even on their occurrence on this page do the words “There is a

world” determine a proposition. There is nothing in these words to suggest the specific rules of definition and the conceptualizations that the sentence they comprise may be used to convey on any particular occasion. As elements in a particular person’s behavior, they are as open to interpretation as any other piece of behavior, and as in the case of nonverbal behavior, they may not be intended to convey anything “propositional” at all.

We shall not add more here in support of the metasceptic’s case. Later, in chapter 4, we shall have more to say about the complications involved in asserting truth and falsity. But at least it should be apparent that confident action does not, in any straightforward sense, either involve or compel propositional commitment. If, as Sextus, Hume, James, Russell, and others suggest, nature can make us believe things in the absence of what the intellect would consider good reason for belief in their truth or probability, then there would seem to be some initial plausibility in the view that there is no more than a likelihood on any particular occasion that natural confidence and trust in this or that respect implies a disposition to assert the truth of any corresponding propositions.

Can the Sceptic Believe?

If it is possible to believe a proposition in the absence of intellectually adequate reasons for belief in its truth or probability, is it not also possible to believe it without committing oneself to belief in its truth or probability?

The answer to this question is complicated by a variability in the use of the term *belief*. Sometimes to believe means to accept that something is certain: sometimes it means that *one* is certain although the *something* may not be; other times it means that one is not certain, since one does not *know*, but is only inclined to be certain. As we saw in Russell’s definition, belief can even be used to cover behavior that involves no verbalizable envisaging of states of affairs at all, but simply an attitude of unquestioning expectation. James (1957: 89) says that “there is some believing tendency wherever there is willingness to act. . . .” And he accepts that there is a sense in which “we find ourselves believing, we hardly know how or why” (ibid., p. 93), as if we could come across our own beliefs by observing our own behavior.

But, then, could not the sceptic also believe what he and others, by noting his actions and words, find him to be believing? Certainly, the definition of the sceptic—as one who fails to find arguments for or against a

proposition sufficiently strong to warrant a decision—seems to allow him considerable room for maneuvering. And the question of whether or not he can believe may only turn on what one chooses to mean by “belief.” It is clear, for example, that if to believe something he must accept unreservedly some proposition as true or probable, the sceptic cannot believe. If, on the other hand, beliefs are understood more broadly in terms of behavior that may in principle be dissociated from commitment to the truth or probability of propositions, the sceptic can be a believer. In that case, the limits to scepticism may be thought to come when the sceptic’s behavior lends itself more properly to the terminology of *conviction* rather than *belief*—in that to be convinced about something suggests a kind of deliberate decision or at least a decisiveness that is quite alien to suspension of judgment. However, even this may give the sceptic less latitude than he is due. Is it possible, for example, to consider an occasion in which we could aptly describe participants in a program of action as having strong convictions about the best way to proceed, and as feeling quite sure that a fair number of envisaged events may be relied on to occur, and yet deny that they were thereby committed to accepting propositions? At least it could be psychologically incorrect to assume that, if asked, they would seriously maintain that they know what is best, that what they say about the future, for example the weather, is true. But on what basis, then, could it be claimed that their actions expose their commitments? Thus we seem to reach a point at which, far from any action at all on the part of the sceptic betraying his innate dogmatism, the problem is rather to find any kind of action that could be considered adequate evidence of the kind of commitment that the sceptic, according to Sextus’s definition, avoids.

James, we may recall, says that “since belief is measured by action, he who forbids us to believe religion to be true, necessarily also forbids us to act as we should if we did believe it to be true.” But whether we conclude that here is one kind of activity from which the sceptic is debarred depends on the part we ascribe to commitment in religious belief. James (1957: 182) himself argues “in defence of our right to adopt a believing attitude in religious matters, in spite of the fact that our merely logical intellect may not have been coerced.” The abstention from religious belief in the absence of sufficient intellectual justification is regarded by James as itself an act of will, inspired by the fear of making mistakes. In enjoining us to believe truth rather than shun error in regard to religion, James presupposes that

religious belief “requires, or inspires” certain actions that we would be debarred from if we abstained from such belief. “The religious hypothesis gives to the world an expression which specifically determines our reactions, and makes them in a large part unlike what they might be on a purely naturalistic scheme of beliefs” (ibid., p. 108 fn.).

It is not clear, however, that the sceptic’s world cannot be colored by religious beliefs, and that his reactions cannot be determined by them. The crucial question here concerns the part played in these reactions and in the expression that determines them by belief in the truth or probability of religious propositions. We might stretch matters even further and say it concerns the part played in believing in the truth or probability of propositions by *commitment* to their truth or probability.

It is true that in some cases membership of a religious community may depend on acceptance of this special kind. On the other hand, it is hard to see what specific reactions membership in this sense could determine; and in any case, communities like these would be just the ones we should expect the sceptic to avoid. Usually, as in the case of political and social ideologies, little pressure is exerted on people actually to affirm the factual truth of whatever religious propositions they subscribe to; it is enough to exhibit an appropriate positive attitude. If there is anything at all that the sceptic would seem to be unable to derive from religion, it would be a settled conviction, say, in a personal universe. But even if such conviction plays an important part in religion, it is hardly essential. Conviction and faith, after all, are not the same, and in stressing the difference, believers are often insisting on the sufficiency of the latter.

Our defense of the sceptic may tend to be misconstrued at this point. We may seem to be on the verge of picturing him as being able to participate in the beliefs of his nonsceptical fellow citizens because his reservations about them concern merely the philosophical status of the evidence available for these beliefs. This kind of defense has often been made on behalf of the sceptic. Popkin (1967), for example, says that

[T]he historical skeptics . . . distinguished believing various matters from having sufficient reasons for believing them. Regardless of the legends about Pyrrho, the skeptical authors seem to have followed Huet’s view that it is one thing to philosophize and another to live, and that many propositions may be philosophically dubious but acceptable or even indubitable as living options.

(Popkin 1967: 460)

The reservations of the sceptic thus appear as nothing more than an intellectual appendix attached to everyday beliefs, according to which it is stated that the beliefs in question are philosophically dubious.

However, as we have already pointed out, the Pyrrhonist cannot have *philosophical* reservations, meaning he is in no position to judge whether or not the evidence for believing a proposition is philosophically adequate. As we have stressed, the Pyrrhonist can have no judgment of the inadequacy of evidence other than his own reluctance to abandon the search for counterarguments. This reluctance represents a personal, not a philosophical, reticence to be convinced.

James (1957: 89) defines a living option as one in which both hypotheses make some appeal to one's belief, the extent of this appeal being measured by one's willingness to act. But he distinguishes between the livingness and the genuineness of an option. Although "Choose between going out with your umbrella or without it" may be a living option in his sense, it is not a genuine one, because it is not forced; one can avoid going out at all.⁵ According to our account, the sceptic is a person who finds that no options are genuine in this sense. For, as we have indicated, the sceptic's experience does not formulate itself into propositions, nor are the circumstances in which his ordinary everyday expectations are fulfilled or disappointed sufficient in themselves to compel him to take a stand. It is not, as Popkin suggests, that the sceptic relies on a theoretical distinction that makes his reservations about everyday propositions merely formal, but rather that propositions of all kinds involve conceptualizations of experience and that their acceptance or rejection requires acquiescence in much more than the mere course of events in one's experience.

Russell (1945) has an alternative picture of the sceptic acting out a common life with his nonsceptical fellows. He states that "a modern disciple [of Pyrrho] would go to church on Sundays and perform the correct genuflections, but without any of the religious beliefs that are supposed to inspire these actions" (ibid., p. 233). But this ignores the subtle variations of attitude that the term *belief* tends to obscure. The sceptic's trust in his own impulses and in the traditions of his environment need not express itself in a mere formal allegiance to the beliefs that his nonsceptical fellow citizens attach to their actions. The sceptic is not one who, lacking the motivating power of any beliefs of his own, must, if he is to move at all, hitch himself to the habits of his society. If he genuflects on Sundays, this may be

due simply to his having been brought up in a religious household and to his having not, as yet, found a compelling reason to stifle the impulses that are bequeathed to him as a result of others' acceptance of these religious propositions. He may still have the appropriate dispositions; being a sceptic, he will simply be one who has failed to come to any final decision about the truth of the beliefs from which his actions spring.

Equally likely, however, the genuflecting sceptic may be a particularly venturesome sceptic who is willing to test the power of religious attitudes to overwhelm his scepticism. He may even go so far as to acknowledge their power, but still not succumb to them to the extent of excluding the possibility of the relevant religious propositions being false. Here there might seem to be little to distinguish the sceptic from the mature religious believer who strives to sustain his religious attitude on something less than absolute conviction. To the religious minds of Kierkegaard and others, of course, the confusion of knowledge with faith is directly irreligious. On the other hand, one would expect important differences in the attitudes of the religious believer and the experimenting sceptic. The faith of the believer in the truth of religious propositions is something that the sceptic can only pretend to himself that he has; if he really had it, he would not be a sceptic. A sceptic's participation in the propositional aspects of religious belief cannot therefore be genuinely religious. But this does not mean that he cannot act and react as he would if he genuinely believed in the truth of the propositions. Moreover, it is debatable how much of the characteristically religious "expression" that James refers to is dependent on a genuine acceptance of the "religious hypothesis."

The difference between impulses and judgment is reflected in our interpersonal relationships. We trust others, some implicitly, others up to a point. To the extent that we trust these individuals, we may be disposed to make assertions about them that claim truth or probability. But I think that nearly everyone has had occasion to feel that this trust or mistrust, even if put into words, does not correspond to a definite opinion, or to any claim to objective validity that we might be called on to make in certain circumstances. Here, too, the sceptic may preserve his naive attitudes of trust and mistrust, his confidence and diffidence, and the feelings of certainty and uncertainty that he has for others. His world remains, in this respect, the same as that of the nonsceptic. The only difference is that for him the act of asserting the truth or falsity of a proposition is part of a special occasion in

which something quite different is expected of him. Rather than make judgments, he would tend, as Sextus indicates, to cultivate perceptual and emotional sensitivity, and as this sensitivity increased so would the need for claims of objective truth vanish, or be substantially reduced.

Must the Sceptic Be a Doubter?

There are no grounds in Sextus's description for picturing the mature sceptic as a person who shows indetermination, irresoluteness, indecision, wavering, hesitation, suspense, perplexity, bewilderment, embarrassment, confusion, puzzlement, disbelief, incredulity, mistrust, diffidence, or suspicion, however fittingly these terms may describe his state of mind as he listens to dogmatists. But Sextus does list four names of the adherents of his philosophy—the sceptics, the zetetics, the doubters, and the Pyrrhonists. It might seem that the first two, deriving from Greek terms for looking about in a searching manner, and particularly the third one alluding to doubt, suggest characteristics not at all conducive to a profound peace of mind. However, it is clear that Sextus introduces them simply in order to classify abstract philosophies according to how they stand in a particular discussion, namely on the true knowledge of reality. They need not designate personal traits.

There is nothing here to suggest that the sceptic, as an actual person, should feel obliged to go around doubting or seeking any more than others. Indeed, the urge to doubt and seek should apply more to the dogmatist for, as we have suggested, the more one postulates as true, and the more entangled one gets in the intellectualization of attitudes, the more there is to doubt. By refraining from dogmatizing, one may reduce the occasions for doubt. In any case, the discussion in the two previous sections should have effectively undermined the assumption that the sceptic must be in a perpetual state of doubt and indecision. The sceptic's reservations are simply not of the kind that are directly reflected in his reaction to his surroundings. Insofar as they do affect his attitudes and behavior, these reservations are expressed not in any preoccupation with doubt, but in an avoidance of just those dogmatic forms of confidence that tend to give rise to doubt and mental tension.

The difference between the doubter and the sceptic in Sextus's sense can be illustrated by two kinds of dialogues:

The Doubter

The dogmatist: P is true.
The doubter: I doubt it; there is the following source of error . . .
The dogmatist: You mean not- p is true?
The doubter: I doubt whether not- p is true; there is the following source of error . . .

The Sceptic

The dogmatist: P is true.
The sceptic: Why should I accept p rather than not- p as true?
The dogmatist: Because argument A proves p .
The sceptic: Why should I accept " A proves p " as true rather than " B proves not- p "?

Where the doubter is continually disappointed with the candidate convictions that offer themselves for acceptance, the sceptic, resting ("until further notice") in his *epoché*, has no pressing vacancies for them. During his dialogue with the dogmatist, there need be no inkling of doubt in his mind.

Is the Sceptic Unperturbed by Modern Science?

It has been suggested that although scepticism may have been psychologically possible in the Hellenic world, this is only because science at that time played no important role in daily life. Today, however, with scientific knowledge pervading society at all levels and scientific regularities forming the background of our lives every moment of the day, scepticism can no longer be regarded as psychologically possible.

Although there is much to be said for this point, technical development has also introduced considerable complexity, irregularity, and unpredictability. And, of course, even in the time of Sextus, people relied on the regularities of the seasons, the moon, and the uses of words. Furthermore, even if the beneficiary of modern science has a thousand regularities at his beck and call, unquestioning reliance often invites a rude awakening.

In any case, those who are impressed by scientific methodology will find that truth, as a property of scientific results, has been reinterpreted. This is due to intensive indoctrination with a methodology of science that stresses the uncertainty of scientific knowledge, the commitment to hold any question open, and the idea that the main function of scientific propositions is

as working hypotheses. Since the dominating philosophies at the time of Sextus—Stoicism, varieties of Platonism, and Epicureanism—were all dogmatic, and the religions of the day claimed to contain true knowledge, our own environment of scientific education and creativity can hardly be considered more hostile to Pyrrhonian scepticism than the environment of Sextus. In the philosophy of the formal sciences, too, an influential movement stresses postulates, conventions, rules at the base of mathematics, rather than truth and objective validity. The violations are thus conceived as forms of bad, unsocial, or incorrect behavior.

Uncertainty in natural science does not exclude probability. There are, however, influential movements in philosophy that deny the probability of scientific knowledge. One of them is closely connected with the Catholic Church, representing a variant of Neothomism. Pierre Duhem is an outstanding representative. Another is represented by Karl R. Popper, a great disbeliever in the capacity of induction to justify scientific propositions and of probability as a property given to scientific propositions by their particular confirming instances.

In short, methodology of the sciences, formal and nonformal, is compatible with the view that anything can happen at any time; it is unscientific to say that some happenings are *objectively* more probable than others. Our life of action, even in a society pervaded by presuppositions of scientific regularity, is not, of course, dependent on the correctness of any definite proposition about a regularity. It is enough that we find ourselves trusting that the future will resemble the past or, to be more exact, that we act in a trusting way that may best be suggested by such exclamations as "Surely the future will resemble the past!" or "You can always rely on the force of gravity!"

So, while many drop from the ranks of potential sceptics because of an unshakable belief in the truth or objective probabilities of scientific knowledge, others are led to scepticism by their very studies of the special character of scientific knowledge.

Is the Sceptic Sensitive to the Difference Between Real and Apparent?

It has also been suggested that by confining himself to reports of his own beliefs and thoughts, the sceptic collapses the distinction between appearance and reality and thus denies himself the use of the category of the real.

The sceptic, however, does not reject the everyday distinction between what seems to him now to be the case and what really is the case. That is, he may retain a kind of image of the distinction between reality and mere appearance without putting a specific interpretation on it. At least this is how we may understand some of his reactions and utterances. He, like anyone else, can be misled by illusions, note his mistakes, and correct them. He simply suspends judgment in relation to any proposition claiming to say something *true* about how things really are.

To understand the sceptic's mind, we must appreciate that reality, in this respect, is utterly in the dark, always eluding him, never grasped in knowledge. But it would be incorrect to picture him as feeling that reality is utterly unintelligible, incomprehensible, and unreachable. (That would be the feeling of the Academicians, not of the sceptics, according to Sextus.) Reality is in darkness, but not *necessarily* in darkness. It might be brought to light. The sceptic, at least, is not convinced that it cannot. In fact, the sceptic himself may, in his own opinion, be the one to bring it to light; he may discover how things really are—in at least one respect. This, of course, would mean the end of his career as a sceptic. But, as was pointed out in chapter 1, it would be wrong to view the sceptic as serving a self-imposed life sentence, or to view him as a person who could not envisage a possible defection to dogmatism.

Tentatively, I conclude that the sceptic contemplating questions such as "How is reality?" and "What is real?" is likely to feel that reality is enigmatic, ambiguous, strange, obscure, veiled, unpredictable, and unmanageable. Compared with the dogmatist, who thinks he knows a large number of important truths and has full access to a reality that is quite intelligible in most respects, the sceptic is likely to feel more or less powerless. Anything may happen at any moment; there is no certain way of stopping any process.

It seems that if a sceptic has a penchant for contemplating reality and for wondering about how things really are, he must become depressed, or at least awed. I suppose one must acknowledge a need in men for unveiling, controlling, and predicting what is real. On the other hand, of course, there are secondary needs of an opposite kind: needs for a universe that is too great and complex to be understood, a reality that possibly has layers we cannot penetrate, with mysterious depths and unfathomable riddles.

So, even if the sceptic is likely to, or will as a rule, feel reality to be enigmatic, ambiguous, and so on, there are, psychologically, different frame-

THE PSYCHOLOGICAL POSSIBILITY OF SCEPTICISM

works in which to put these feelings. The resultant complex attitude may quite well not be a negative one of perplexity, fear, and embarrassment.

So much for the likely feelings of the sceptic toward reality as opposed to mere appearance, insofar as the distinction is something he acknowledges. One must, however, keep in mind that the fundamental distinction for the sceptic is not that between real and apparent, but between known to be true (or valid) and not known to be true (or valid). The sceptic may ask himself, Do I really want this gadget? or Do I really trust this friend? An answer may be found through listening to his own impulses and inclinations or through discriminating between levels or depths of motivation. The sceptic might also say "The boss looked angry, but he was not *really* angry" without claiming truth, but only by way of conveying his impressions. For there are impressions both of real anger and of apparent anger. Thus, in matters of interpersonal relations, the sceptic may, more often than even the dogmatist, consciously discriminate between real and apparent. But he does so without touching epistemological distinctions or the professional philosophical debate on reality and appearance.

General Outlooks Generate Scepticism

The sceptics described by Sextus came to doubt and then suspend judgment through their encounters with dogmatic disagreement and controversy. It may be that today, however, the most likely development of a complete sceptic (surrounded by a dogmatic environment) includes a presceptical stage at which the later sceptic has an intellectually well-organized, unified outlook on life and the cosmos.

From experiments in social and physical perception we know that value judgments clearly and significantly influence perception. One may remind oneself, for instance, of how coins worth more look bigger. A unified outlook influences all regions of perception. Or, to be more exact, there will be an interaction between different factors and layers of the mind with a resulting personality structure characteristic of the outlook. The intellectual organization of an outlook inevitably results in a distinction between basic and less basic parts. The mass of judgments of value and of fact will be felt to rest on certain fundamentals, certain basic assumptions, or intuitive insights.

Can We Assume That Sextus and His Less Articulate Friends Fulfill the Requirements?

Having reached this stage, the individual is constantly in a danger zone. If the personality is not highly integrated but permits the individual with a certain degree of calmness, detachment, or alienation to inspect his own outlook as such, a major kind of catastrophe or crisis may occur. If, for some motive and reason, inspection is carried out with a touch of basic doubt or feeling of strangeness, the individual comes to look on his own outlook in its very basic features as something profoundly subjective, as the truthful expression of one individual basic way of seeing and feeling things, but without any consequences for any other human being. That is, the holder of an intellectually well-organized, unified outlook creates some of the necessary conditions for a thoroughgoing scepticism. He has the breadth and intensity of vision lacking among people who are only intermittently and tentatively engaged in working out their own outlook on life and the cosmos.

From a philosophic, or let us say epistemological, point of view, fundamental principles must have self-evidence, an internal or immanent obviousness. Being fundamental, they are by definition impossible to defend by anything external to themselves; they express a last stand. If, therefore, an individual comes into an ambiguous relationship to the only foundations he can identify himself with, the whole edifice that rests on the foundations becomes suspect. He doubts its truth and validity, yet there is no objective test available. If his further development goes well, he will acquire the status of a mature sceptic, enjoying peace of mind. But he may not develop in this way—he may instead develop negativism, cynicism, nihilism, and despair.

Can We Assume That Sextus and His Less Articulate Friends Fulfill the Requirements?

We have, in deference to Sextus, defined scepticism genetically, in terms of a characteristic personal development. Those and only those persons who show this development are (by definition) sceptics.

The possibility of becoming a sceptic is then identical with the possibility of undergoing this development. And the possibility of remaining a sceptic is equal to the possibility of continuing to show the characteristics attributed by Sextus to the mature sceptic. Sextus says nothing about persons who do not remain mature sceptics, the “renegades” or “backsliders.” These would

be sceptics who eventually lose their suspension of judgment in favor of certain propositions—let us say those of Heraclitus or Protagoras.

Although we are not concerned with the question of for how long it is possible or practicable to remain a sceptic, in discussing the psychological possibility of scepticism we nevertheless think of time intervals of some length. A person may scarcely be said to be a Catholic or a conservative or a pessimist for five minutes—that would be too short. On the other hand, a stability lasting twenty years or more is not required in order to qualify. The same considerations apply to scepticism. There is no built-in requirement of lifelong adherence, but there is, of course, a requirement of stability and profound attachment.

Sextus talks about sceptics as if they were persons existing at and before his time. Very often he uses phrases suggesting that he himself is a sceptic. One must nevertheless pose the questions: Was Sextus, or were his friends, *really* sceptics at least during some part of their lives? Were at least some persons *correctly* subsumable under the concept of sceptic as defined genetically? Or does Sextus only describe ideal sceptics, fictitious personalities?

There is nothing in the writings of Sextus or in other Greek works (for example, those of Diogenes Laertius) that directly suggests the fictitiousness of his sceptics. In the literature of his day and earlier, the existence of sceptical “schools” and sceptical philosophers is taken for granted. More exactly, the term *sceptical* and its cognates are used to qualify adherents of certain schools and of single personalities.⁶

From a psychological and social point of view, our ultimate decision will mainly build on our assumption as to what is possible *today*. We can try to envisage what might be the difference between human life here and now and life in the Hellenic world, but ultimately the question of the psychological and social possibility of scepticism has to be attacked from our knowledge of the human beings of today.

Concluding tentatively, we shall form five hypotheses:

1. *Scepticism is psychologically possible.* It is possible in its full development as pictured by Sextus, with the additional features described below.
2. *Approximation to scepticism is psychologically a more likely and durable state.* The same holds for states in which one’s attitudes are too vague or ambiguous in outline to decide on their exact relations to sceptical requirements.

3. *People most likely to develop close approximations to scepticism are those who have a marked tendency and ability to form integrated, general attitudes, coloring their whole mental life and outlook.* Such persons will eventually also be able to suspend complex attitudes in the sense of holding them back from full, free operation. The psychological mechanisms behind truth claims and claims of objective validity may thus be suspended.
4. *Experience furnishes some material relevant to the situation of a sceptic in a nonsceptical milieu.* The conservatism and other social traits of the sceptic are understandable interactions within a dominantly non-sceptical milieu. The possibility of a sceptical “epidemic,” a flourishing scepticism gradually wiping out dogmatism, has never been discussed seriously. The main questions raised are, Would inquisitiveness, and therefore science, come to a standstill? Will children be left untaught? This latter eventuality would have disastrous effects on any civilization.
5. *As to the possibility of stable sceptical communities, there is no precedent to learn from.* In such a community, if one ever came to exist, there would be little incentive for the individual to form a general outlook, and he would not be helped to form one by learning to know existing philosophies. If—as has been supposed—one is most likely to form scepticism when doubt undermines a general outlook to which one has given all one’s mind, the main historical source of scepticism would dry up in a stable sceptical community. Thus, the community will eventually turn antisceptical, restoring the supremacy of dogmatism in some form or another.

III

Scepticism and Positive Mental Health

Introduction

The proposal that scepticism is possible in practice immediately gives rise to a further question: whether, and in what respect, scepticism is at all practically desirable. The host of issues associated with this question cannot be adequately discussed here. Before going on to discuss scepticism in the light of more or less purely epistemological considerations, we can at least pause to consider how scepticism stands with regard to an area in which the practical issues have already been formulated in comparatively precise terms, and the normative issues, as criteria for mental health, have been agreed on more or less, if only implicitly. What I propose to do here, therefore, is subject the radical sceptic to the test of currently accepted criteria of positive mental health.

A practical problem very germane to the issue of scepticism arises here in confronting the Hellenic sceptic with modern teaching on positive mental health. The exponents are many, and seeker though he is, the sceptic can hardly fail to notice with some discouragement that the specialists are not of one mind. Therefore, to protect him from an unnecessarily obvious demonstration of the availability of counterarguments, let us confront him with but one representative, Marie Jahoda. Or, to be more exact, let us confront him with the criteria listed in her book *Current Concepts of Positive Mental Health* (1958).

Confrontation with Six Criteria of Positive Mental Health

The first major category of criteria refers to the attitudes of an individual toward his own self. However, I do not think much can be said about that kind of criterion because it does not connect in an obvious way with what

Sextus is talking about. The second criterion, however, opens up an interesting question: can the sceptic be said to display a satisfactory degree of growth, development, or self-actualization? Gordon Allport explains that growth motives “maintain tension in the interest of distant and often unattainable goals” (Jahoda 1958: 33).¹ By growth motives he refers to “the hold that ideals gain upon the process of development” (ibid.). Now, perhaps it is only possible for unattainable or very distant goals to furnish strong motivation if the individual is convinced that certain propositions are unquestionably true and certain goods absolutely or objectively good. Regarding distant goals in general, verbalization plays a decisive role, but I think one must concede that belief in a definite truth is hardly a necessary requirement of one’s being said to have a distant goal. Gardeners may plant trees for the joy of their grandchildren but without making definite predictions. The sceptic may make evaluations concerning distant matters that he envisages, and the verbalizations may be part of what stimulates him to act consistently through long periods, but he need not use any of these verbalizations to express knowledge. I tentatively conclude that scepticism is not a decisive obstacle to self-actualization. On the positive side, the sceptic has at least one distant goal—to find truth—and one ideal: true knowledge. As metasceptics, we shall attribute this to him even if he always suspends judgment when we discuss this point with him.

Abraham H. Maslow, stressing self-actualization as a criterion of mental health, finds that it is accompanied by a “genuine desire to help the human race” (Jahoda 1958: 34). Strong and persistent motivation in helping our race in complete generality—or somewhat less ambitiously, in helping the developing countries or any considerable portion of mankind (without hating the rest)—may well require a heavy reliance on abstract thinking and conclusions derived from such thinking. The sceptic, not being able to concede the truth of even quite simple propositions, may not be able to visualize the problem of helping the human race in its totality. If he meets a hungry child, he meets *that* child, not the fifty million hungry children of the same nationality. He would tend to answer Maslow, “Yes, I think I see the terrible importance of what you are saying, but only in moments in which I succeed in believing in the truth of a long list of propositions. However, I see no grounds for accepting them rather than their negations as true.” Any political, social, or ethical creed based on a substructure of articulated unquestioned truths would be without appeal to the mature sceptic. In conclu-

sion, then, we may suggest that the sceptic would receive a low score if positive mental health were judged by desire to help the human race at large. A good lecturer on the subject of helping mankind, however, will illustrate his points by pictures of starving children or desperate mothers. The sceptic might be motivated to help, immediately and vigorously, on seeing the pictures and listening to the case studies, whereas the ordinary listener would curb his feelings for political, financial, and other reasons that are highly dependent on belief in general truths. In short, the sceptic may well be more fitted to offer spontaneous and wholehearted help. But if Maslow insists that he must have a strong desire to help *mankind* in order to satisfy the criterion, the sceptic will fail.

As a third category of criteria, Jahoda mentions integration. At this point, too, Allport seems to be the psychologist who makes the sceptic appear most unhealthy. He speaks about a unifying philosophy of life as a sign of maturity. And although the metasceptic and diligent observer of the sceptic has ample reasons to accord a unifying philosophy to the sceptic, this does not seem to be enough for Allport. The mature person “participates and reflects, lives and laughs, according to some embracing philosophy of life developed to his own satisfaction and representing to himself his place in the scheme of things” (ibid., p. 39).

If we think of a philosophy of life as an outlook on life in general, and if it is to be developed in contrast to other philosophies of life, the sceptic has no philosophy of life. He has no *doctrinal* philosophy of life, being antisceptically free of belief in particular philosophical systematizations. Therefore, he cannot place himself as an outsider looking at himself and his place in the general scheme of things. He does not believe that he knows of any objective scheme of things. So, Allport must conclude, it seems that the sceptic dismally fails, and that he is utterly unhealthy, according to at least one integration criterion.

But there are grounds for the opposite conclusion. About other people we may say they have a definite outlook about life, even life in complete intercultural generality, without their saying anything about it either to themselves or to us. We speak about the old peasant’s outlook in spite of the fact that one of the old peasant’s traits is extreme muteness. He may even protest, swearing that he would never dream of considering life in general or subject his whole personal life to reflection. Allport might agree to this. A unifying nonprofessional philosophy of life may not be articulated in any form.

If this is granted, however, the sceptic may rise to a pinnacle of healthiness insofar as he has a way of taking things that is both peculiar and unified.

Our conclusion regarding integration will therefore follow a middle course. One may speak of the sceptic's outlook, and the sceptical way marks an important unifying ingredient. Yet in spite of this, he may in many ways show considerable looseness or even disconnectedness. He will conform only roughly to the traditions of his society, according to Sextus. He will perhaps be weak in following principles and norms under stress, not holding them in any absolute manner. He will go along with others, but not all the way when this requires, as it sometimes will, a solid conviction that this or that *is* true. It is tempting to think of times of crisis when some, but not all, friends or fellow citizens stand up to very severe tests. The sceptic's resistance to stress may show weak spots, but not in any glaring fashion. He never makes great claims, his level of aspiration is moderate, and he does not jump up as a lion to fall down as a mouse. These reflections follow closely what Sextus himself says about the social relations of the sceptic. If we allow ourselves to depart from his narrative in secondary matters, a different picture may emerge. Thus, today, we would concede that absence of belief in truth may well combine with strong convictions.

As a fourth major category of criteria, Jahoda lists autonomy, the individual's degree of independence from social influences. Maslow speaks about people who maintain "a relative serenity and happiness in the midst of circumstances that would drive other people to suicide" (Jahoda 1958: 47). David Riesman, also in Jahoda (*ibid.*, pp. 47–48), distinguishes between adjustment to society of the tradition-directed, inner-directed, and other-directed kinds and judges autonomy of the individual with reference to these factors. This is highly relevant for scepticism and justifies a brief digression.

It has often been noted that men of letters with sceptical inclinations tend to support the traditions of their society and are, as a matter of course, never seduced by programs of radical reform. They are conservative. It is the radical who accepts general propositions predicting the future.

Hume, considered the most consistent philosophical sceptic since antiquity, was conservative as a matter of course. But what about his autonomy? Hume's autonomy in relation to the society he supported showed itself in many ways. An example of a rather touching kind is to be found in his relation to Jean Jacques Rousseau. An individual belonging to quite a different society—a society of opposite character in part—Rousseau was,

moreover, a person of diametrically opposite character and tastes. Hume nevertheless felt himself capable of sincere friendship with Rousseau to the extent of inviting him to live in England with him. The story presents a convincing picture of a sceptic living at peace with his own society, but without self-surrender.

How would a sceptic behave under a tyrant, subjected to a terror regime? In our time this is a question that will inevitably be raised. Will he not be among the passive, at best? Will he be among those who are unable to fight for a principle, who let themselves be made instruments of criminal deeds?

In *Against the Ethicists* (trans. Bury 1936: 160–67), a fundamental attack on the Wise Man of Greek philosophical traditions, Sextus answers dogmatists who think that a sceptic will either meekly surrender to a tyrant or stand up against him, but then only inconsistently on the basis of a conviction about what is good or evil, or desirable and undesirable, and thus inconsistently. A sceptic must either act dishonorably or be inconsistent. Sextus questions the dogmatic assumption that the capability of desiring some things and avoiding others presumes a doctrine of some kind, a belief in knowing this or that to be the case. Life can be lived without that. If the tyrant tries to compel a sceptic to do a forbidden act, he will refuse on the basis of laws and customs. Today we will perhaps add “and according to conscience” (whether in agreement or in disagreement with the laws and customs of the time and place). Sextus adds that the sceptic will endure hardships more easily because of his lack of beliefs *about* suffering—beliefs that cause additional suffering.

The inadequacy of individual perception is clearly manifested in many neuroses, “the neurotic is not only emotionally sick—he is cognitively *wrong*”—to quote Maslow again (Jahoda 1958: 50). As a fifth proposed category of criteria, this point must be considered for a moment. The sceptic does not deny the distinction between correct and incorrect perception, it is just that he does not find in practice any indisputable criterion of correctness. In this he does not seem to feel very different from Jahoda, who exclaims (*ibid.*): “Particularly when the object of perception is social in nature—but even when it is physical stimuli—who is to say what is ‘correct’?” Further, she intimates that correctness carries the implication that reality is static and limited and that there is only one way of looking at it.

In the face of this unexpected and remarkable support for the healthiness of a sceptical outlook, I find it justifiable to proceed to the last crite-

tion, environmental mastery. There is one proposal here that directly affects the sceptic, that of making the capacity to *solve* problems a criterion. The sceptic admits that as a person he is incapable of finding the solution of any problem whatsoever in terms of true and false. He would fail dismally as a respondent to the innumerable true/false questionnaires of our cognitively atomistic and optimistic age. Jahoda comes to his aid here too, however, suggesting that it is the process of solving rather than the end product that discloses the healthy mind. Success in solving cannot count for such. The process or method itself does not imply any assertion with a truth-claim attached, and I think nothing can be said in general here against the sceptic.

Sextus himself was very probably a physician, one of the long line of Hellenic physicians systematically opposed to all philosophizing in medicine. The so-called empirical school tried to keep as close as possible to empirical methods, suspicious of any generalization or deduction and of any attempt to find causes. As a sceptic, the medical problem-solver would also have to be critical of conceptualizing the relation between patient and doctor, favoring direct interaction at the nonconceptual level.

Our general conclusion from this confrontation of the sceptical philosopher with criteria of positive mental health must, I think, be very tentative, but at the same time positive. It is that there is no good a priori or general reason to suppose that a sceptic cannot stand up to contemporary criteria of positive health.

The sceptic's failure may seem to come more easily from social rather than psychological sources: in a society that puts heavy stress on verbal conformity in the form of unconditional, explicit acceptance of ideological items in terms of true or false, the sceptic is likely to suffer maladjustment and consequent loss of peace of mind. Still, we have learned in our time how people under totalitarian pressure are capable of combining a high degree of external conformity with deep inner reservations. The sceptic may resort, as do many others, to such a form of "double-think."

The Alleged Scepticism of St. Augustine and Others

In his story of how sceptics develop, Sextus tells us how some gifted people fail to find decisive evidence either for or against any philosophical position. Contemporary psychologists will, I imagine, be justified in pronouncing that there must be a strong propensity toward finding counterargu-

ments in order not to become convinced. There must be peculiar personality traits that explain the genesis of a sceptic. It cannot be a matter of pure intellect, or pure chance.

But what traits? If, drawing on philosophy or the history of ideas, one could provide clear information on sceptical personalities of the past,² then discussion on scepticism and mental health would be greatly simplified. But such information cannot be given.

Let me take an example of a type of literature containing reports of deep scepticism. It begins with St. Augustine (b. 354–430), who says of himself that at about the age of thirty he had developed a complete scepticism. He doubted everything and gave up looking for any single truth (in the manner of the Academicians). He was profoundly unhappy, he lived in sin, and being torn between contrary impulses, had great difficulty in acting coherently. Unhappiness and scepticism thus went together.

All this he reports in his famous *Confessions* after he had found peace in Christ, that is, after a religious conversion. Now, we know that people after a profound religious or political conversion tend to be very inaccurate in their description of their own life before that happening. There is reason to believe that St. Augustine was no exception, and in particular that he was not as sceptical as he says he was. If this is not the case, we would conclude that marked scepticism of the “Academic” (not Pyrrhonian) kind is at least sometimes empirically connected *not* with peace of mind but with a state of deep frustration, indecisiveness, and with moral confusion.

Since Augustine, a long series of Christian personalities have reported on the scepticism (that is, “scepticism” in their own terminologies) that was theirs before their ultimate conversion. Some have even retained the point of view that they *are* sceptics. But it is clear that their concept of religious belief and of revelation is such that they must be said to claim at least to know the truth of every proposition of the Bible. They accept revelation as a source of knowledge of many kinds and confine their scepticism to propositions arrived at without revelation.

I have mentioned religious conversion as one current or movement in the history of ideas only as an example to illustrate the difficulties in assessing the personality background of a sceptical bent of mind. Even if that background were elucidated, it still remains to assess whether a trait found associated with non-Pyrrhonian scepticism could also be associated with the “suspension of judgment” variety. Conclusions on the psychological

and social aspects of scepticism must therefore be taken primarily from the experience of contemporary psychologists and social scientists.

It seems quite likely that converts who have overcome their harrowing doubts tend to regard scepticism in the same light as do many psychotherapists and psychiatrists. For this group, "scepticism" is often made to cover certain defense mechanisms of the unhealthy mind. The patient meets the environment, including the benevolent doctor, with constant irony, sarcasm, and stubborn or blind doubt. He uses a sceptical phraseology to defend himself, to ward off any attempt to influence him in directions in which he does not want to be influenced. From his behavior and utterances, however, it is clear that his sceptical phraseology is not based on a deep and genuine scepticism. The patient accepts many things as true and valid, for instance, as a submissive or loyal member of a gang. Or, he has a tendency to reject many things as false.

The psychiatric patient may even show symptoms of compulsive doubt, *Zweifelsucht*. In psychiatric literature there are examples of psychotic *Zweifelsucht* in which the patient fights between belief and doubt in certain metaphysical positions.³ There is no development of confidence and trust with such patients, at least not as described by the psychiatrists. Their development, especially in this respect, differs widely from that of the Pyrrhonist.

The psychopathology of doubt, indecision, perplexity, disbelief, suspicion, and mistrust is of interest to any student of sceptical tendencies, especially the sceptical stages before religious conversions. But the pictures drawn by psychiatrists bear very little resemblance to those drawn by Sextus. The Pyrrhonist is certainly very different from the psychopathic nihilist and negativist, and also from the patients who are tortured by rapid wavering or oscillation between belief and disbelief.

The Moderate or Fragmentary Scepticism of the Unphilosophical

In spite of the description of the sceptical way in the first part of this book, it is difficult to get a firm feeling for the sceptic as a person. We are invited to keep only certain rather limited characteristics in mind, the seven points of the genesis, but at the same time we want to supplement this account in such a way that a whole person emerges. I shall therefore devote the re-

mainder of this chapter to clearing up some points regarding the sceptical bent of mind—and independently of whether the sceptic is a philosopher.

Dogmatic philosophers will, of course, confront the sceptic with specimens of knowledge that are generally considered most certain. In order to be able to meet other philosophers on their own battleground, the philosophical sceptic must therefore furnish possible counterarguments against such sentences as “I feel hot now” or “I think, therefore I am,” insofar as they are posed as assertions involving the claim that they express certain or probable knowledge.

But the unphilosophical sceptic, of at least one kind, will not bother with these sentences, taking it for granted that mostly they express something that is true, but trivial. Or else, as many nonphilosophers do, he will deny the general applicability of the term *true* to the trivial or “too obvious.” His scepticism is complete in its way if it comprises all knowledge *worth knowing*, all that he ever sincerely wished he knew. I think here of religious and moral doctrines and the unphilosophical sceptic’s opinions on his own basic relations to his nearest family and friends. If he is rudely disappointed and frustrated because of opposing opinions on such things, his genesis as a sceptic can be the same as that of the philosophical sceptic described by Sextus. And if it is seen from a psychological and social point of view, the unphilosophical brand of scepticism will be complete and meaningful in spite of its fragmentary character from a strict cognitive point of view.

Suppose the complete but unphilosophical sceptic is led into philosophy and that he concedes that we have certain knowledge of a perceptual and of a purely logical kind. This does not require him to change his psychological and social status as a sceptic. If the concessions to the dogmatists are sufficiently remote from questions in which he is seriously and personally engaged, these concessions are without deeper effect. He is now moderately and fragmentarily sceptical as a professional philosopher, but still a complete sceptic in relation to all things worth knowing.

Whereas moderate, loose, or fragmentary scepticisms are scorned by the philosopher-epistemologists, they are central to our theme: the social and psychological aspects of scepticism. If we were to consider today only the radical, neatly, and professionally worked-out brands of scepticism, we would feel rather as if we were discussing the intimate life of an extremely rare, possibly long extinct, species of bird. But now, with this philosophi-

cally moderate and fragmentary yet psychosocially total or near-total brand of scepticism in view, I shall proceed to some rather bold speculations.

Encouraging a Sceptical Bent of Mind: Can It Ever Be Right?

In cases of deep and painful doubt and oscillation between opposite views, the therapist should, it seems, represent the dogmatist rather than the sceptic. That is, he or she must help the patient toward a stable view, a valid positive conclusion, whether or not valid in the eyes of the therapist. This may also apply to young people drifting along the stream with little feeling of identity or of anything that is truly expressive of themselves. They may look like potential (Pyrrhonian) sceptics, but they are not likely to become so. They have not gone through the presceptical stage of asking, What is truth? with strength and endurance. Therefore the sceptic's peace of mind cannot be theirs.

Admitting, however, that in many cases a tendency toward scepticism should *not* be encouraged, what are the cases in which it should or at least might? Let us first consider a young man called Max. He is brought up in a highly intellectual atmosphere with stress on articulated opinions justifying attitudes and actions. It is never enough for him to say, "That's the way I feel now," "I cannot help valuing this higher than that," "I just like it," "This, not that, is my duty," and so on; there must be reasons and claims of objective truth and validity. For various reasons Max has developed a keen critical sense, *contra*-argument coming to him more naturally than *pro*-argument. And this criticalness, owing to a not too greatly developed sense of superiority, comes as easily to him in respect of his *own* tentative positions as in respect of those of others.

Without being intellectually inferior, Max is constantly in trouble because he cannot form enduring verbalized convictions and because his father and others who try to press him into certain beliefs are largely immune to counterarguments relating to their own positions. When Max has to make decisions in school, as a student, as a friend, and in relation to the other sex, he insists on making positions conscious and on justifying them intellectually. He demands that his own actions should always be based on considerations of truth, correctness, and worthwhile consequences.

Any effort to change the old trait Max has of coming to see two sides of a thing, and his tendency toward detached objectivity and valid reasoning,

is liable to fail just because this feature is so deeply engrained. And, of course, few therapists would have the audacity to interfere with it, since from many points of view such a trait is an asset. However, the case is one in which help toward a more complete scepticism is warranted. What Max lacks may be said to be the courage to oppose those who make him feel that the intellectual articulation and justification of impulses is necessary, and who have implanted in him a distrust of action or attitude formation without an accompaniment of intellectual justification in terms of truth and general validity. The sceptical outlook involves a mistrust in such justifications and a capacity to see their hollowness from the point of view of intellectual detachment and honesty. Instead of feeling that this ability to see counterarguments is shameful and expressive of inferiority, Max will be encouraged to exercise his ability and stick to his resulting intellectual indecision and suspension of judgment.

One will perhaps object that Max's cure is basically not of being led to accept and further develop his sceptical bent of mind but of being led to trust his own impulses. However, the term *scepticism* has been introduced in this text as it was by Sextus, that is, in terms of the genesis of a kind of personality. Essential in Sextus's narrative is his "impression" that indecision, or rather suspension of judgment, as to truth and falsity does not result in inactivity. Natural impulses lead to action. Upbringing, social institutions, and teachers in the arts provide a sufficient basis for adjustment, both for the passive component—the accommodation—and the active, the assimilation, in the terminology of Jean Piaget. Thus, trust in one's own impulses is an integral part of the scepticism expressed by Sextus Empiricus.

An essential kind of question for Max is, How did I come to think that in order to decide whether to go to college or not I would have to solve the question of whether an interesting or lucrative job is the best for me? Or whether there is a duty for intelligent men today to go to college in order that in 1980 the United States may have more able engineers than the Soviet Union and China put together? Max would have to train himself to have a sharp awareness of his own inclinations, develop his sensitivity, get his impulses coordinated, and use his intellectual acumen to reveal for himself the unwarranted jumps from particular, concrete personal questions to more general and abstract ones, and to distinguish innocent verbalizations ("What beautiful places some college campuses are!") from more formidable articulations in terms of truth and validity.

Let us, once more, look for personality traits correlated with a profoundly sceptical bent of mind. Let us consider a middle-aged intellectually gifted person called Adam. Adam has long had a need for a unified outlook on life of the kind that Allport takes to be a sign of health. And as far as we, his psychologist friends, are able to judge, he *had* a highly unified all-pervading outlook when he was twenty-five years old. When he had that outlook, he seemed to thrive. Then he married a headstrong girl, Mary, with a different outlook. Unhappily, there developed much friction, and Adam was gradually led to *carefully articulate his own outlook*. Articulation functioned then mainly as a defense mechanism.

Articulation presupposes a certain degree of alienation from oneself, a dangerous kind of objectivity. Adam was led to look at himself from the outside and to clarify possibilities other than his own outlook. There now developed a profound indecision and general doubt, and Adam proceeded to undergo an analysis of a somewhat orthodox Freudian kind. It was soon clear that the need for a unified outlook developed out of earlier conflicts when he was torn between his father and mother. His outlook represented a victory of the father image, but there must be something left over, something incompletely integrated in his personality. This explains why his infatuation for Mary had the serious consequence of marriage, in spite of the incongruence between the two in the matter of outlooks.

The analysis was highly successful. To put it in terms of symbols, the main result was that he saw that he no longer needed to choose between mother and father. On the contrary, he felt the arbitrariness of any choice of that kind. Transferred to the field of conscious behavior, it meant a rejection of unified outlooks, a natural disinclination to let himself fasten onto any decision in terms of outlooks on life or anything else. Confronted with believers in the truth of any religion, philosophy, or political ideology, he developed counterarguments in a natural way. Having William James as a distant relative, he often justified his renunciation of knowledge in terms of pragmatism, but he did not really believe in pragmatism. He used pragmatic patterns of argumentation because they were the most convenient way of cutting off reflections leading nowhere.

Whatever the genesis of a definite general outlook, it cannot be shed like a coat. It is therefore not surprising to hear from the psychologist friends of Adam that his social and physical perceptions still have a peculiar tone or color consistent with his former highly integrated outlook. The difference

is that he will not stand up and defend his impressions and reactions as any more valid or true than any other. He trusts his impulses, but his intellectualizations have disintegrated, leaving only the minimum necessary for adjustment to his social environment.

Today I surmise that there are many psychotherapists who are not far from scepticism in their basic attitudes, however full of certainty they may sometimes be in their speech. This makes it easier to help unburden over-intellectualized minds of unnecessary, unending reflections about truth and falsity and validity and invalidity. I should think therefore that scepticism of the radical kind we are discussing should not be wholly without practical importance for psychotherapy; here at least is one context in which it may be considered practically desirable. The relevance in wider contexts of a conclusion about the practical value of scepticism in this one field must be left to those who would consider in more detail the connection between mental health and community, and the importance of a sceptical attitude among those who would seek to influence the development of society. One might reasonably predict important social implications coming from widespread scepticism, even from the fragmentary, unphilosophical kind. It should effectively undermine closed societies with their demands for explicit adherence to certain doctrines and the systematic rejection of counterargument. And in more or less open societies, scepticism should help both in the reshuffling of political priorities and in the elimination of rigid ideological reasoning that lacks any basis in spontaneous thought and feeling.

IV

Conceptual Complementarity of Evidence and Truth Requirements

Introduction

Knowledge implies truth: what is known cannot be false. This is a matter of definition. There are other requirements, too. In the usual case, knowledge of something is not attributable to someone as knowledge unless that person has reason for his belief. But even this is not quite enough, since a true belief based on reasons might still be rejected as knowledge if the reasons were not considered adequate. That is, for a true belief to be knowledge, the reasons or grounds for holding it must satisfy certain standards. Some people convey this by saying that knowledge is a title that beliefs must earn, and that they earn it not simply by being true but by being well grounded.

In taking up these points, we shall depart from the course generally taken in discussions on scepticism. Usually the epistemologist concerned with scepticism is occupied with general questions of the form “Do our beliefs ever earn the title of knowledge?” Ayer, for example, in *The Problem of Knowledge* (1956: 76), presents the sceptic as one who alleges that our reasons for believing something can never be good enough for the belief in question to count as knowledge, the argument being that a knowledge claim involves an “illegitimate inference” from one level of facts that form the premises of our knowledge claim, to another level of facts that form the conclusion. The problem, as Ayer sees it, is that of establishing our right to make what appears to be a special sort of advance beyond our data (ibid., p. 78). In the case of our belief in the existence of the external world, for example, the sceptic is represented as maintaining “that we have no access to physical objects otherwise than through the contents of our sense-experiences, which themselves are not physical” and that since the relationship between premises and conclusion is neither an inductive nor a deductive one, the inference cannot be justified. If our beliefs about the existence of

CONCEPTUAL COMPLEMENTARITY OF EVIDENCE

physical objects can never be justified, the existence of physical objects can never be known.

Here, however, we will consider not the transition from a true belief to a justified true belief but the transition from a belief that is justified to a belief that is both justified and true. That is, we shall consider the interrelationship of the truth and evidence requirements of knowledge, a change of focus that brings to light a “problem of knowledge” rather different from that normally discussed, a problem of adequately conceptualizing expressions of the form “I know that p ” in terms of truth and evidence. The import of the following discussion will be that there are difficulties in giving any consistent analysis of knowledge expressions when these are used purportedly to convey information that there is evidence for the truth of some assertion and that the assertion is true. These difficulties suggest that certain limits are imposed on the usefulness of knowledge expressions, a conclusion that would provide philosophical support for the radical sceptic’s disinclination to affirm the truth of anything.

However, as in all arguments, the limits of our conclusions are as important as the conclusions themselves, and it will be necessary to note the restrictions that are imposed on them by the nature of the problem of knowledge as we conceive it. In particular, we shall have to guard against inferring from the fact that there are difficulties in giving a satisfactory account of knowledge expressions in terms of truth and evidence (or ground), the conclusion that these difficulties are in some sense “inherent in the very notion of knowledge.” As we shall see, there is no obvious connection between these difficulties and questions about whether knowledge is possible or not, that is, with the problem of knowledge as ordinarily conceived. On the other hand, they do have a bearing on the acceptability or possibility of radical scepticism, and the following discussion constitutes an attempted justification of radical scepticism. (As such, of course, it is not a justification that the radical sceptic could consistently accept; but if he were favorably impressed by the arguments, he might well employ them as counterarguments against those who dogmatically assert his own intellectual unresponsibility.)

The nature of the “problem of knowledge” as discussed here can be expressed in terms of the awkwardness of applying knowledge expressions when one takes into consideration the combined truth and evidence require-

ments of such expressions. This awkwardness can be expressed in terms of a secondary thesis that asserts the impossibility of identifying an event that constitutes the transition from reaching toward knowledge to grasping it. In fact, the metaphor of reaching, as also of arriving at, cannot be applied to any use of knowledge expressions that explicitly differentiates the truth requirement from the evidence requirement. To put it summarily, we might say that knowledge cannot be reached in such a sense by any increase of evidence.

Restrictions and Qualifications

Some restrictions and qualifications have to be made to the above theses. First, I provide no arguments to show that concepts of knowledge that definitely imply or definitely do not imply truth and evidence are the only ones possible. For example, I shall not attempt in this inquiry to refute certain versions of pragmatism and subjectivism. There is, however, general agreement that the concepts of knowledge that imply truth and evidence are the important ones in philosophical discourse. This seems to have been acknowledged ever since Plato.¹ Apparently Plato and Aristotle did not doubt that such knowledge could be and had been reached. Indeed, Aristotle is very specific in contending that knowledge of this kind is derived through evidence. Thus, one of his theses might be formulated as follows: in at least one sense of “knowledge” and “reaching,” knowledge implying truth and evidence is something that we *can* reach through an increase in evidence.

Second, although our secondary thesis about “reaching” does apply also to “arriving at,” it is not intended to cover a thesis about “having.” It is at least not clear that the inability to conceptualize arrival at knowledge entails the impossibility of having knowledge. Therefore the possibility that we do in fact know a great deal certainly cannot be excluded. All that is denied is that we can give any consistent account of our arrival at whatever knowledge we may have, and may have obtained.

Further, in many cases, the question of evidence and the description of steps of accumulation of evidence seem out of place. With respect to certain kinds of everyday utterances, we scarcely talk about evidence, collecting more evidence, and the like, at all. For instance, I do not speak about my evidence for believing that this is my finger or that it is not raining on this table. In the case of it being irrelevant to ask about evidence, the question

of how to arrive at knowledge by an increase in evidence does not arise. In what follows I intend to talk about utterances in which it *is* relevant to ask such questions as “What about the evidence?,” “How do you know?,” “What makes you so sure?,” “How did you find out?,” and so on. Thus, if I say I am in pain, the situation is mostly of a kind that makes the quest for evidence irrelevant or at least very queer. Notice that this restriction limits our discussions appreciably compared with Sextus’s and our own treatment of Sextus in chapter 1. Sextus discusses at length such sentences as “I feel hot now” and other utterances that in everyday life are not ever supposed to elicit a “What is your evidence (for such a conclusion)?” The question “What *kinds* of statement or what kinds of circumstances are such that the question of evidence is irrelevant or inappropriate?” is, of course, a formidable one, and cannot be taken up here. Some philosophers, John L. Austin among them, favor broad delimitations of the field of inappropriateness (see, e.g., *Sense and Sensibilia*, pp. 115 ff.).

The Shift from Plain Announcing of Knowledge, to Justifying Claims, to Saying One Knows

To claim that knowledge cannot be reached may seem counterintuitive. Perhaps it will be protested that there are cases in which it seems utterly clear that knowledge is reached, and by an increase in evidence. Until recently, for example, there was only relatively indirect evidence in support of the existence of high mountains on the other side of the moon. But then photographs became available. Surely, then, we can say that it is true that there are mountains, and that we know it, and that truth and knowledge were reached some years ago through a definite increase in evidence. If there is a problem here, it seems only to be that of the paradox of the heap, that is, of determining at which step of accumulating the evidence it became sufficient to establish truth—with which photograph and at what stage in its production did someone grasp the truth and thus acquire the knowledge that “there are high mountains on the other side of the moon”? But if one looks a little closer into the matter, the problem confronting the epistemologist appears more involved.

The way in which people use expressions of the form “N. N. knows that *p*” suggests a model in which certain situations serve as ideal examples.

Such models of “knowing that p ” assure a special kind of cognitive position or vantage point vis-à-vis the facts. When I say I know that something is the case, it is because I believe I am aware of the facts in some way analogous to direct perception of them; I and the facts are in the same sort of excellent cognitive relation. Just as I have things or events in view, so I have facts in my grasp. And just as I came to see things or events with my eyes, so I came to grasp the facts with my mind. Thus, prior to the photographs of the back of the moon, the facts were not grasped, but now that they are available, the fact that there are mountains there is a piece of knowledge in the hands of at least certain scientists and also perhaps of those who have seen or been told about the pictures.

The plausibility of this way of talking rests on the acceptance of certain situations as instances of the paradigm cognitive relationship. It is assumed that in certain situations we have not merely better evidence, but that the evidence we have is so good as to be tantamount to, or in some sense to guarantee, truth.

But it seems that to treat a situation as one in which truth recognizably accompanies the evidence involves an evasion or a denial of a basic fact: truth and evidence are *complementary* requirements of knowledge. Now, to describe these two requirements as complementary is simply to say that in order for “ p is known” to be true, there must be acceptable evidence for p , and p must be true. There is, it seems, nothing inconsistent in the assumption that the two requirements are on any occasion separately satisfied; to assert that p may be known is meaningful and consistent. But there is no way in which this can be more than an assumption. It is not possible, so far as I can see, to give an account of some situation in which that situation can be described as furnishing either two sets of denotata answering to the truth and evidence requirements or one set of denotata that truth and evidence share. There is, in fact, no identifiable situation answering to the paradigm cognitive relationship that knowledge claims assume and sharing the assumption that lies at the basis of the utility of knowledge expressions.

These considerations can be seen to emerge when pressure is applied to everyday uses of “I know” and similar expressions. Ordinary run-of-the-mill claims to know that something or other is the case are generally unproblematic. There are fairly clearly defined rules for making such claims, and for accepting or rejecting them. That is, expressions like “I know”

CONCEPTUAL COMPLEMENTARITY OF EVIDENCE

function satisfactorily for communication. But it seems that the utility of such expressions depends on the assumption or convention that evidence of a certain kind does constitute or guarantee truth, and hence knowledge. However, when pressure, even if only in the form of attention, comes to bear on this assumption, the complementarity of truth and evidence is exposed and the utility of the expressions rapidly diminishes.

When, for whatever reason, people go into the details of the evidence considering one piece at a time, I think most of them, whether they are philosophically sophisticated or not, tend (1) to stop using the distinctions between known and not-known and between true and untrue or (2) shift toward the question of being *justified in asserting or saying* "Now it is true" or "Now it is known." That is, there is a tendency to estimate what might be, from a social point of view, sufficient to claim this or that. "Nobody" will blame one for *saying*, "It is true that there are mountains on the other side of the moon, and at least some photographers are directly aware of the fact."

If, experimentally, we press people toward retaining the above distinctions, the results indicate a shift toward increasing indefinitely the requirements for grasping knowledge and for guarantees of truth. ("Of course one cannot be absolutely sure," "Naturally, there is always a chance of being mistaken," and so on.) Such increases in the requirements do not necessarily affect the consistency or constancy of the meaning of *truth* and of *knowledge* in everyday talk. The shifts are just part of the way the terms are used; they result in dropping certain terms and using others in their place. A sort of verbal evasion takes place: repeated posings of the question "Do you *know*?" after a while no longer elicit answers in terms of knowledge but in terms of evidence, "untranslatable" into answers in terms of reaching knowledge.

The transition from knowledge expressions to evidence expressions, the substantial increases or decreases of requirements, and concessions such as "Of course, one cannot be absolutely sure" that do *not* imply retraction of a previous "I know it": all these complicated mechanisms affecting daily use are relevant to attempts to delimit a meaning or connotation or a set of meanings and connotations of "knowing." Being conceptually indeterminate, so to speak, these mechanisms are not of a kind easily taken care of in ordinary definitions and explicit conceptual determinations (*Begriffsbestimmungen*) and are not easily adapted to formulation in terms of sets of constant requirements, criteria, or necessary conditions.

The same kind of shifts can be studied in other cases: Something is said to be known *now* but not to have been known at a previous date, and the difference is readily said to be due to an increase of evidence. But if, contrary to custom, detailed information is elicited concerning the way the difference was established, concerning the dates and the documentation and so on, there is a shift in the actual theme of the discussion from *being* true and known to *saying* that something is true and known, or from knowing to having evidence of this or that kind.

The distinction between asking “Is *p* true?” and “Is it justifiable to say (assert) *p*?” is a well-established one both in everyday life and in scientific contexts. You may say you are occupied (or not feeling well, unable to answer, etc.); that is, you may say these things even if you know they are untrue. It is perfectly justifiable to say you have found the solution. To say that you *believe* you have found it will give listeners a wrong impression—they will underestimate the evidence you have or assume you have none.

However, claiming that a difference is well established in everyday life and in scientific contexts does not necessarily imply that the definiteness of intention in communication is always sufficient to allow for the distinction to be intended. In fact, the distinction between “Is *p* true?” and “Is it justifiable to assert *p*?” is often slurred over, and in recent philosophical discussions this practice has received some encouragement, as we shall see. However, although there are well-established precedents both for making the distinction and for ignoring it, in what follows we must rely on making the distinction with great emphasis.

The conclusion drawn from empirical studies of cases in which people actually use the terms *true*, *known*, and *evidence* is, in short, *not* that they tend explicitly to give up or retract their claim to know, or that they soften the truth requirement, but that they continue the discussion as if the claim had not been made. The truth and knowledge claims are left alone: the speakers leave one subject of discussion for another—or so, at least, it appears from the point of view of the epistemologist. But, of course, a shift of ground is always relative to someone’s—usually theoretically determined—partitioning of the ground, and it is no doubt possible to redraw the boundaries in such a way that we should say there was no shift of ground.

Let us nonetheless conclude that, at least from the point of view of an epistemologist who cannot imagine a situation in which the known/not-

known distinction is inapplicable or can be misplaced, there is indeed a shift of ground, a *metabasis eis allo genos*.

Requirements of “Knowing” Involving Three Questions: Corresponding Questionnaires

There is, in recent philosophical discussions, a flourishing branch of the family of definitions or sets of definitions of knowledge, namely those requiring three things: that one be sure, that one have adequate grounds for being sure, and that what is claimed to be known be true.² I shall try in what follows to break through the barriers between epistemological discussion and empirical observation by asking, What would happen if we tried *to use* the three requirements in actual situations, if we asked whether a particular given statement fulfilled them?

Now any practical use of three such complicated decision criteria makes it necessary to apply them one at a time. But then this has a very serious consequence: Instead of a question that is timeless and abstract, we get one in which the order that three separate items are applied matters. There will now be *three* questions of the kind “Does this statement fulfill requirement *x*?” The three items may be interpreted as three necessary conditions. Together they have been considered to make up a complete set of necessary and sufficient conditions. And every time anyone correctly concludes that he or someone else knows something, it is presumed that the three questions have been given adequate answers, one for each necessary condition.

Let us call a standard set of questions asked in a definite, repeatable kind of situation a “questionnaire.” The requirements, if used explicitly, will then delimit a family of questionnaires. It seems that such a questionnaire cannot easily be avoided if, contrary to custom, the requirements are to be used or put forward explicitly in concrete cases, one after the other. Persons who want to act responsibly and to make sure that they themselves or others *know* that such-and-such is the case will have to remind themselves of the three questions, listing them in one of six possible orders.

The “Third-Person” and “First-Person” Questionnaires

If I am asked, “Does N. N. *know* that Leif Ericsson discovered America?” I may decide to use the following kind of questionnaire:³

Questionnaire 1:

1. Is he sure that p ?
2. Does he have adequate grounds for being sure?
3. Is p true?

In Questionnaire 1, (3) is clearly different from the conjunction of questions (1) and (2), provided *adequate* is defined in terms of certain (social) standards. But now we come to the problem children of our distinguished family, the criteria that I know that p :

Questionnaire 2:

I know that p —I am sure that p , I have adequate grounds for being sure that p , and p is true.

On questioning myself, or being questioned by others, as to whether I know p to be the case, what am I to do when confronted by the third requirement? What is the relation between the first two and the third for me, as I'm on the point of deciding whether I do or do not know that p is the case? Is it really a new question? And if so, what can I provide in answer to it except repetitions of what I have already said?

For the sake of an easy survey, both the third-person questionnaire, in which I answer questions about another person and the first-person questionnaire, in which I answer questions about myself, may be formulated thus:

Questionnaire 3:

- | | |
|---|---|
| 1. Is he sure that p ? | Am I sure that p ? |
| 2. Does he have adequate grounds
for being sure that p ? | Do I have adequate grounds
for being sure that p ? |
| 3. Is p true? | Is p true? |

When deciding whether *he* knows, I answer the question "Is p true?" on the authority of my own beliefs and grounds—a basis not referred to previously in the questionnaire. The third-person questionnaire is, so to speak, that of a bystander, an observer, or maybe an editor of an encyclopedia of knowledge, like the one compiled by Otto Neurath (whose views about knowledge were described by Russell as characteristic of an editor, not a contributor).

CONCEPTUAL COMPLEMENTARITY OF EVIDENCE

On the other hand, when faced with the question “Is p true?” of the first-person questionnaire, I shall once more ask myself, “Do I have adequate grounds?” or search frantically for something more than evidence, say a guarantee of truth, a direct, transcendental insight into the nature of things. I must look for something that allows me to eliminate the *process* of knowing, of mediation. For I am no longer being asked about grounds; the positive answer to the question of adequacy of grounds remains unchallenged but seems not to be taken as sufficient.

If I have already answered yes to the question about adequate grounds, the question “Is p true?” will then tend to be interpreted according to a strong or a weak interpretation of “adequate grounds,” either as an awkward repetition of the question concerning adequate grounds or as an undecidable question, such as “Irrespective of my adequate grounds and my personal conviction, *is* there life on other planets?”

All through this discussion I have presumed that we are dealing with questions in relation to which the quest for evidence is relevant. In such cases, I know of no other basis except evidence for establishing truth and (true) knowledge. But, then, the third question, the truth requirement, cannot be taken as an independent requirement when an individual judges his own knowledge claims. And in that case, the third question is a misleading one.

This criticism of the set of three requirements for knowledge does not automatically apply to our consideration of the statements of *other* people. There we are bystanders, judges, sociologists, and editors. But maybe a simple change in the order of the stated requirements may save the three-requirement conceptions. Perhaps we should ask for truth first and evidence afterward. Chisholm, in *Perceiving* (1957), treats the truth requirement just as we have done so far, as the third requirement. But Ayer, in *The Problem of Knowledge* (1956), puts the truth requirement first. He writes:

I conclude then that the necessary and sufficient conditions for knowing that something is the case are first that what one is said to know be true, secondly that one be sure of it, and thirdly that one should have the right to be sure.
(P. 35)

Reformulated, this piece of text may well be taken as a member of the family of definitions under consideration, because Ayer makes the right to be sure depend on the satisfaction of certain standards of evidence.⁴ A first-person questionnaire adapted to Ayer’s point of view would run as follows:

Questionnaire 4:

1. Is what I say I know true?
2. Am I sure of what I say I know?
3. Do I have the right to be sure of what I say I know?

For the purpose of making comparisons with other questionnaires, let us reformulate these questions as follows:

Questionnaire 5:

1. Is p true?
2. Am I sure that p ?
3. Do I have the right to be sure that p ?

As in the case of the expression "adequate evidence," the expression "right to be sure" admits of a strong and a weak interpretation, according to whether or not one only has the right to be sure that p , if p is true. In the former case, truth is, in other words, taken to be a necessary condition for having the right to be sure, whereas in the latter case, it is not. The two interpretations may be formulated thus:

$T_0 \equiv$ adequate grounds

$T_1 \equiv$ grounds that according to prevailing standards are sufficient to justify my being sure

$T_2 \equiv$ grounds that are so good that if they are realized, then p is true

In the following I shall be assuming T_1 rather than T_2 , that is, I adhere to the "social standard" interpretation. A positive answer to (3) (in Questionnaire 5), using T_1 , amounts to a declaration that one acts as a responsible member of society. One can justify having answered positively, even if subsequent events should make it natural to conclude that p is false. This interpretation, in other words, provides for the eventuality that one was mistaken. If one was indeed mistaken, one nevertheless had the right to be sure.

The strong interpretation indeed is not the usual one among epistemologists. Thus, according to Ayer (1956: 43), one earns the right independently of the question of what will actually happen later. Later one may earn the right to retract the original claim. The right to be sure that p and the right to be sure that not- p are earned at definite dates by definite people. Thus, at

CONCEPTUAL COMPLEMENTARITY OF EVIDENCE

the same time as person *A* earns the right to be sure that *p*, *B* may earn the right to be sure that not-*p*. Hence, although the strong interpretation of “adequate grounds” and “right to be sure” makes the third question a repetition of the first, the weaker interpretation allows that one may have the right to be sure irrespective of the question of truth. That is, I may, for instance, have information that no one can reasonably expect me to doubt, but which in a particular situation is misleading. Thus, I will not reject the remote possibility that I am now in Africa, but I shall insist that I have the right to be sure I am in Europe. My evidence fulfills, I firmly believe, any reasonable standard of evidence, and I shall turn with indignation toward anyone who questions that I have at least the right *to say* I know I am in Europe. I may concede remote possibilities of *p* being false and at the same time insist on having the right to say I know that *p*.

After this digression on the expressions “right to be sure” and “right to say I know,” let us inspect our new formulation (5); let us call it the modified Ayer Questionnaire.

As an oral questionnaire, it is likely to be more successful than the previous first-person questionnaires, because the subject asks himself directly about *p* before he asks about his personal relations to *p*. Ontology precedes epistemology.

Empirical investigations have shown, however, that people, when asked about their relations to *p*, that is, whether they are sure and what evidence they have, tend to give up the simple straightforward expressions “It is true” and “I know” in favor of such expressions as “I am convinced it is true,” “I am perfectly sure it is true,” or the even more subjective “I am convinced” and “I am perfectly sure.” Both logically and psychologically, this shift of ground is significant. Expressions that refer to our own relations to the proposition are used when our attention is focused on that relation. One may conclude, maybe on the next day, “I was convinced it was true, but actually it was false,” “I was perfectly sure of it, but it was not so,” or “I was sure I knew, but I did not.” On the other hand, under these conditions one will not conclude “It was true, but actually it was false” or “I knew it, but it was false.” The difference is made even clearer if I say on the next day: “I said yesterday that I was *convinced* *p* was true. I *was* convinced that what I said was true. But, unfortunately, it turns out that *p* is false.”⁵

If, now, evidence increases—even with the force of an avalanche—(perfectly normal) people will still tend to continue to use the evidence-

centered expressions; they do not revert to the simple "*p* is true." More than that, explications of truth in terms of maximal evidence seem to be self-defeating, because nobody seems to have described a kind of actual evidence possessed or enjoyed by some actual person such that the mere having or enjoying of it automatically establishes truth. Changing the order of the questions consequently does not solve our problem of how to find a natural first-person questionnaire that combines the impersonal truth requirement and the personal conviction and evidence requirement.

By empirical methods of research, the shift from truth terminology to evidence terminology may be studied in detail. We shall see that it can be explained in terms of the conceptual framework of empirical semantics. However, before embarking we should perhaps accommodate those philosophers who are still reluctant to hand over to science what they can possibly discuss in their own terms and try to put the facts into frameworks that are more familiar to them.

Of these, the game framework is one of the most absorbing at the present time. One may conceive of a mother game (or point-of-departure game), the simply-telling-what-is-the-case game that, when certain constellations are reached, can start off two mutually exclusive subgames, the truth game and the evidence game. One must make a choice at the appropriate point, and then there is no way back. If one chooses the truth game, one must stick to its own bleak and depersonalized terminology using expressions without even an implicit reference to the problems and practices of justification, possibly just repeating the truth-claim. If one chooses the evidence game, one must describe, assess, and weigh evidence, using the complicated, rich vocabulary of the trades and sciences.

In choosing and playing the evidence game, one also starts off on a new round of the mother game: Weighing the evidence, you say that such and such *are* the sources of error, that some piece of evidence is better than another piece, and so on. If your partner introduces a knowledge game ("How do you *know*?") in relation to your statements about the evidence, the crucial-choice situation may turn up once again, and you will have to choose once more between the truth game and the evidence game. But the new, subsidiary play does not ruin the principal one; you may just go ahead, continuing the moves appropriate for the situation.

So much for the applications of game concepts to the problem. But there is another popular framework among philosophers: the transition

CONCEPTUAL COMPLEMENTARITY OF EVIDENCE

from truth to evidence or vice versa can also be conceived in terms of rationally reconstructed levels. When my attention is absorbed by the process of amassing evidence, the use of the expression "It is true" refers to second-order statements. Thus, I may say, "The evidence, it is true, has not increased to such an extent that it is simply crushing." Or we may say, "I am now perfectly convinced. That is true." Or we say, "Nobody can blame you, you were sure that the gun was unloaded. That is true. But you blundered when saying you *knew* it was unloaded."

If, being already at the second level, I start to reflect, the terms not referring to evidence and conviction disappear. If I have said "I am perfectly convinced that is true" and I am questioned about the honesty of my conviction, I shall speak of my *evidence* of the sincerity of my conviction, and this makes it difficult to revert to simply saying "It is true that I am convinced." The simple phrasing "*It is* true" may disappear only to reappear at the third level, and so forth.

Thus the shift from truth terminology to evidence terminology induced by applying the corresponding requirements separately can be neatly conceptualized; that is to say, it is possible in these terms, and no doubt in others, to provide a rational explanation of the change of ground. But what such conceptualizations so neatly express is precisely the disparity of the two requirements in their concrete application: the requirements, in short, are not *used* in such a way as to complement one another. One might say that the mistake such conceptualizations point to is that of inferring from the correctness of an analysis of "I know that *p*," in terms of two distinct requirements of truth and evidence, the conclusion that we explicitly require of particular knowledge claims that they presuppose separate answers to questions about truth and evidence.

Now this is of relevance for the analyses provided by Ayer and others who accept the three-requirement concept of knowledge. As concept mapping or rational reconstruction projects, such analyses may be helpful insofar as they abstract the logical implications of common usage. And yet, however faithfully these analyses represent the conceptual implications of "I know that *p*," it is important to see that the details of the analyses do not necessarily reproduce conceptual distinctions actually made in common usage. This can be seen by applying such analyses to concrete cases.

Suppose *A* asserts that he knows that *p*. If "I have adequate grounds for belief in *p*" and "*p* is true" are said to express two conditions for such an as-

sertion, the mere listing of them together by another person, *B*, in the presence of *A*, changes the whole atmosphere for *A*. The requirement expressed by "*p* is true" is such that it cannot be added to "I have adequate grounds for belief in *p*" without a change of attitude; when saying "*p* is true," attention is fixed on what is asserted by *p*. The combination of the two conditions requires of *A* that he maintain a combined externalizing and nonexternalizing attitude or that he oscillate rapidly between the two.

How is *A* to interpret *B*'s interference? In all likelihood *A* will interpret the second condition, the truth requirement, as a more exacting requirement than the first, but of essentially the same kind. Invoking the truth requirement makes *A* reconsider whether the grounds are really adequate. He will reflect, "Remember, it is a question here of what is the case, not merely belief or conviction; therefore be critical in your examination of the evidence!"

In other words, the effect of introducing the analysis to people engaged in assessing *p* is to bring pressure to bear on them to increase the standard of adequacy. And further, if they yield to the pressure, the effect will be to distort usage—in the form of the adoption of a terminology with unusually severe requirements for saying "I know that *p*" and "*p* is true."

Looking closely, then, at the empirical evidence on how we actually tend to behave in situations in which we are confronted with the three requirements, it seems impossible or highly unnatural to conclude anything in terms of conceptual constructions of knowledge. In applying the three requirements, we find no neat concept of knowledge such as an analysis in terms of them suggests. The material evidence, in fact, provides no indication of such a set of mutually complementary conditions in cases of the normal use of "I know that *p*."

Insofar, then, as a three-requirement analysis expresses a model of reaching toward truth and grasping it in a way in which it is guaranteed, it seems that the model does not apply. The model, or frame of reference, or metaphor for gradually reaching knowledge through increases in evidence simply cannot be adapted to summing up or conceptualizing the empirical material.

If I gradually come nearer and nearer to an apple, I can eventually grasp it. This latter event is clearly something very different from merely getting close to the apple. In reaching for something it is possible, for example, to reach too far in our eagerness or drunkenness. Having grasped it, one may lose one's grip. Or one may be forestalled by someone else reaching it first. All this contrasts with our striving or reaching for knowledge. We may in

some sense measure an increase in evidence, but we cannot measure the approximations to knowledge where knowledge requires truth. The event of grasping is just not forthcoming, and nothing corresponds to reaching beyond, losing one's grip, or being forestalled.

There are, on the other hand, some similarities between reaching knowledge and reaching apples. We may be mistaken in our belief that we have reached the apple. Darkness may make our judgment unreliable, or somebody may have put a wooden "apple" on the branch in order to teach us philosophy. But the clear and sufficiently relevant difference between reaching an apple and reaching a piece of knowledge lies in the conceptualization of the process. In order to reach the apple, one must not only come sufficiently near to it, something entirely new must happen, namely the actual grasping of the apple. And whether we are mistaken or not in believing it is a genuine apple, the actual grasping is conceivable and is conceived as an independent event providing a new kind of experience.

A Conclusion on "Reaching" Knowledge

If we conclude that knowledge cannot be reached by increasing evidence, it sounds as though we are playing into the hands of those who unduly stress human fallibility. But, of course, the formulation also covers knowledge about failures and errors. No belief can be *known* to be mistaken by increasing the evidence for its negation. So really the formulation indirectly supports infallibility as much as it does fallibility.

The formulation "knowledge cannot be reached by increasing evidence" is nevertheless misleading. What we have done is to consider some kinds of sets of proposed necessary and sufficient conditions for "knowing," especially for the truth of "I know that *p*." We have noted that when (a) "it is the case" requirements, and (b) evidence requirements are made sufficiently precise as separate requirements, there is no process comparable to a reaching and grasping of knowledge by increasing the quality of evidence. But it is just because there is no such process that the negative, sweepingly general conclusion—compared with the narrowness of the kind of requirements we have considered—may be misleading. It might lead one to think that *reaching* is in any case a good conceptual frame of reference in relation to knowledge, whatever the level of preciseness of the discussion. The empirical material, however, suggests otherwise. It might be less misleading, then, to say

“Knowledge defined conceptually in terms of requirements can neither be reached nor not reached by increasing the evidence” or “The metaphor of reaching out for, coming gradually nearer, and then eventually grasping is inadequate as a basis for a conceptualization or explication of ‘knowledge.’”

Even this formulation is not an entirely satisfactory one since the inadequacy, as far as we have discussed it above, refers to a process of increasing evidence, which is only one process by which knowledge is obtained. We have not discussed, for example, the possibilities of immediate intuition.

Nevertheless, our conclusion has severe repercussions for the three-requirement conceptions of knowledge. For it undermines the assumption that there is any basis in how we commonly use “I know (that such and such is the case)” for constructing a concept of knowing that contains both a truth requirement and an evidence requirement, *each of which must be separately fulfilled*.

Now this last qualification might be taken to suggest an alternative solution. If our conceptualization of normal uses of “I know (that such and such is the case)” fails just because it demands that the truth and evidence requirements be separately satisfied, why should we not construct a concept in which the requirements do not require separate answers? That is, why not take the problematic truth requirement to be satisfiable in terms of the unproblematic evidence requirement?

Concepts of Knowing Without a Separately Satisfied Truth Requirement

Insofar as claims to know that such and such are typically accepted or rejected on the basis of evidence—either the evidence attributed to the claimant or the evidence the attributer attributes to himself—such a conceptualization might seem to do justice to ordinary usage. But although the proposed conceptualization agrees with ordinary usage in respect to making the evidence requirement the working partner, it departs from ordinary usage in making the truth requirement entirely subordinate to the evidence requirement. What the proposal requires is that we make do with evidence alone, that is, determine knowledge (and thereby truth) exclusively in terms of specified standards of evidence.

Now if the truth requirement and the requirement of adequate evidence are collapsed in this way, it is clear that I can still rationally reconstruct the

CONCEPTUAL COMPLEMENTARITY OF EVIDENCE

process of reaching knowledge. For if the evidence according to a social standard is less than adequate, then an increase in evidence will eventually make it adequate. There is no special difficulty involved as long as adequacy is defined in relation to specified standards that have already been satisfied in other cases.⁶ Thus, if the presence of an eyewitness is taken as standard for certain kinds of assertions, the event of finding an eyewitness may at the same time be an event of reaching knowledge. Both events are datable, and there is no question of what happens afterwards.

There will even be levels of evidence that more than fulfill the standards, thus making it practicable to localize the lower limit of adequacy between two levels, the level of less than adequate and the level of more than adequate. Then the difficulties of grasping knowledge as a special event as opposed to approximating it naturally disappear.

There are, however, cogent reasons for rejecting definitions in terms of standards of evidence. They lead to paradoxes, or at least to terminological oddities that few would tolerate once they were made aware of them. In other words, this conceptualization of knowledge, just as the previous one, leads to perplexities and to a negative conclusion.

To see how this is so, consider the following tentative equivalences (omitting the “being sure” requirement for the sake of simplicity):⁷

- 1a. Knows now at time t that p : A 's evidence now at time t that p satisfies the standard of evidence valid now at time t in the field to which p belongs.
- 1b. Knew at time t that p : A 's evidence at some past time t that p satisfied the standard of evidence valid at time t in the field to which p belongs.
- 1c. Was mistaken at time t that he knew that p : A 's evidence at time t that p did not actually satisfy the standard of evidence valid at time t in the field to which p belongs.

Now, so long as we retain the conventional idea that standards of evidence are modifiable, the conceptualization of “I know” in terms of specific standards of evidence will clearly lead to paradoxes. Thus, the left-hand proposition (1a) is not contradicted by the following left-hand propositions of (2a) or (2b) in the case in which equivalence (1a) holds:

- 2a. Knows at time $t + 1$ that not- p : A 's evidence now at time $t + 1$ that not- p satisfies the standard of evidence valid now at time $t + 1$ in the field to which p belongs.
- 2b. Knows now at time t that p : B 's evidence now at time t that p satisfies the standard of evidence valid now at time t in the field to which p belongs.

In short, giving up the separate truth requirement results in concepts of knowledge according to which two contradictory propositions may both be known, or in concepts relative to time, situation, person, or materials of evidence.

If, on the other hand, we try to resolve the paradox by avoiding the relativity to person and time, we would have to allow that there could be standards of evidence that rendered mistakes impossible. But this would exclude the modification of the relevant standards of evidence. Yet surely if we ask ourselves in what cases we would accept that evidence implied incorrigibility, we would have to allow that even if there were cases, they would seem to be so rare and uninteresting in practical life that using "know" only in those cases would virtually render the term inapplicable.

It should be noted that even if there are statements known for certain to be true, this does not show that the certainty arises from *evidence* making mistakes impossible. And incorrigible statements may not even be true, let alone known to be true, since statements might be incorrigibly false.

In any case, insofar as the establishment of social standards of evidence is not a mere fiction, these standards are fixed at levels that can be disputed. Indeed, it is the disputable character of evidence that motivates the institution of standards. They also function to avoid too severe as well as too lenient requirements of knowing; they do not function to institute the severest possible requirements. The *possibility* of agreeing to the statement "It was generally accepted that we knew that p , but it was a mistake" is left open.

If we accept:

- 3. If at least one person knows that p , then p is known.

Then, if (1a) and (2a) are true we accept as possible:

CONCEPTUAL COMPLEMENTARITY OF EVIDENCE

4. Both p and not- p are known.

In general, the following constellations among others are possible if A and B are two different persons:

A knows that p , B knows that not- p .

A knew that p , A knows that not- p .

A knew that p , B knew that not- p .

The possibility is not to be qualified as *remote*, for even in scientific textbooks a considerable percentage of statements judged to express knowledge are retracted as time passes. Applying (3) we get a mass of combinations of the following kinds:

Now p is known, whereas earlier not- p was known.

Now p is known in the scientific community A , whereas not- p is known in B .

In a case in which standards in a field are successively increased in severity from level L_1 to L_2 , and from L_2 to L_3 , and so on, then “known” would have to be indexed:

Now p is L_3 -known (and therefore also L_2 - and L_1 -known), whereas earlier not- p was L_2 -known.

In the backward(?) community A , not- p is L_1 -known in B , p is L_2 -known in C , L_3 -known.

The contradiction or inconsistency can, of course, be avoided if we drop the notion “known” and adopt evidence-concepts, for instance: “N. N. had at time t standard evidence.” But although the more complex notion does not lead to contradictions, neither, unfortunately, does it solve the problems connected with “knowing.”

Note that the equivalences (1a) through (1c) make it necessary to retract the statement that p is known by N. N. only if certain historical investiga-

tions concerning *standards* lead to results that differ from previous ones. *New evidence directly concerning p is irrelevant.* It cannot change the verdict “N. N. knows that *p*,” because it relates to the present and cannot affect “N. N. knew that *p*.” Whatever the amount of evidence amassed in the future in support of not-*p*, the proposition “N. N. knew at time *t* that *p*” will be true. However, evidence that N. N. after all did not have the socially required evidence may result in a denial that N. N. knew.

One of the negations of (1a) and (1c) runs as follows:

- 5a. Does not know now at time *t* that *p*: *A*’s evidence now at time *t* that *p* does not satisfy the standard . . .
- 5b. Was not mistaken at time *t* that he knew that *p*: *A*’s evidence at time *t* that *p* *did* satisfy the standard . . .

And more complex statements:

- 6. *A* knows that *C*’s evidence at time *t* that *p* did satisfy the standards, but *B* knew that it did not.
- 7. *A* has standard evidence that *C*’s evidence that *p* was up to standard, but *B* had standard evidence that *C*’s evidence that *p* was not up to standard.

Consider guns. There are certain manipulations that once performed justify one in saying, “The gun is unloaded,” but, of course, very strange circumstances may occur such that one may later establish adequate evidence that it was, in fact, loaded. If N. N. had adequate evidence at one o’clock that the gun was unloaded but later at two o’clock obtained new evidence that it was loaded at one o’clock, he still *knew* at one o’clock that it was unloaded. In court he may say, “Yes, the gun killed the dog at about one o’clock. From that time I knew it was loaded, but just before that I knew it was not loaded. Because I knew it was unloaded, I have no responsibility for what happened to the dog. I agree the gun *was* loaded all the time, but for part of the time I *knew* it was *not*.”

If knowing is defined in terms of satisfaction of definite standards of evidence, however high, and one keeps the definition in mind—eradicating any association of knowing with truth and being-the-case—such pieces of conversation as the following could occur:

CONCEPTUAL COMPLEMENTARITY OF EVIDENCE

Several people knew he was the murderer, but of course, as you know, he was not. Among those who knew he was the murderer, there are still some who think they know. The rest know he was not, they knew only until last spring.

Or:

A is right in maintaining that the spectrophotometric method as used by astronomer *B* satisfies our standard of evidence, and that the radar method as used by astronomer *C* does so also. *B* found that the distance to the sun is smaller than k ; *C* found it is greater than k . In other words, *B* knew it was smaller, *C* that it was greater. It is therefore correct to claim, as *A* does, that in view of *B*'s and *C*'s results, we know both that the distance is greater and that it is smaller.

Finally, there would be extreme oddity in the account of scientific research. The scientist would continually be finding himself encumbered with truths that his later researches would strongly incline him to renounce. Rather than have so much conflicting, even contradictory, knowledge on his hands, his wisest course might be to consign all rejected theories to a closed file marked "knowledge," and be content to concentrate henceforth on untruths. Or perhaps the natural result, both in scientific and everyday matters, would be a kind of despairing reappraisal of all past efforts and a sceptical pronouncement that none of the evidence obtained so far was correctly taken to guarantee, or to be tantamount to, the truth. The file marked "knowledge" would then have to be emptied.

So much, then, for the bold decision to conceptualize knowledge and truth in terms solely of evidence. If carried out, the use of the term *know* would differ so much from most usages relating to "know that p " as to be grossly misleading. If knowing is to be equated with having evidence of some kind, it would be better not to use the term *know* but to speak simply of having evidence of this or that particular kind, or simply of having standard or adequate evidence.

The conceptualizations of "It is probable that p " are mainly in terms of evidence. Attempts to conceptualize "I know that p " in terms of "It is very probable that p " therefore do not avoid the possibilities of both p and not- p being known. Lack of space forbids our going into detail concerning the complexities of probability constructs.

A Suggestion Not to Use Knowledge Expressions Under Certain Circumstances

In the foregoing I have argued that to require truth and evidence as two clearly separate, precise requirements of knowledge leads to the conclusion that we can never *reach* knowledge by an increase in evidence. If, on the other hand, we leave out truth as a distinct requirement and limit ourselves to requiring standard evidence, we get a strange use of “to know,” and we might as well eliminate the truth in favor of the evidence terminology, or, even better, in favor of a combined statement of degree and a kind of conviction or belief and status of evidence (grounds included).⁸

What we can conclude validly at this point must be carefully distinguished. All we have indicated is that it is difficult to make sense of the idea of attaining knowledge solely on the basis of evidence when the transition from not-yet-knowing to knowing is marked by some identifiable event. It is important to note two consequences that do not follow from this conclusion. First, it does not follow that we do not or cannot know anything or even that it is less probable that we know anything. The difficulty we have discussed is that of identifying any event as the transition point at which a mere belief becomes a true belief or at which a true belief becomes a belief known to be true. From this we can conclude at most that we cannot conceptualize our use of expressions of the form “I know that *p*” when we intend them to convey information about such an event. But, of course, it is doubtful whether the impossibility of identifying such an event means that an event of the kind in question cannot occur. At least this would require other, debatable, premises. Therefore not only does the possibility of our having knowledge remain open, in terms of the above discussion, but also the possibility of our arriving at or coming *somehow* to knowledge. What is excluded, however, is the possibility that we can conceptualize and point to an event that we know constitutes our arrival at knowledge.

The second main consequence that does *not* follow from the conclusion of our discussion is that expressions of the form “I know that *p*,” and other knowledge expressions, cannot be used in their normal sense for purposes of satisfactory communication.

As I shall try to show, the ordinary and normal use of such expressions does not require that the event of reaching knowledge be clearly distin-

guished from that of obtaining certain standard or accepted evidence. Nor does it require that it *not* be so distinguished. Such requirements are parts of explicit conceptualizations. It is only when knowledge expressions are used to express these conceptualizations that any difficulties arising out of the requirements affect their utility or smooth functioning. In the great majority of cases, explicit conceptualizations do not enter into, and thus do not determine, our use of such expressions. With regard to "I know that *p*," in cases in which the requirements of evidence and truth are not explicitly made, therefore, I suggest that the use of knowledge expressions is unproblematic. Thus, what I propose is that one may persist in using the terms *know* and *knowledge*, but only in situations in which it is taken for granted by the language community, or at least by the persons I speak to, that I do not make definite *conceptual requirements* concerning what is implied by something being known.

In seeking to justify the decision to persist in using the terms, therefore, I point to the term *know* as a term of everyday use that is applied with a certain lack of definiteness or depth of intention in relation to any conceptual framework. This lack of definiteness of intention, so I shall argue, is such that although in their everyday use of knowledge expressions, people implicitly acknowledge that what is false cannot be known (for example, when they come to believe that not-*p*, they withdraw any previous claim to know that *p*), they do not go so far as to *affirm* that what is known cannot be false or that it can. And it is because they do not think through the implication that they are able to envisage identifiable events that constitute not merely the addition of further evidence but the arrival at the truth of the matter itself. When we talk about the truth requirement, therefore, as far as ordinary use goes, neither the affirmation that what I know *cannot* be false nor the affirmation that it *can* will be to the point. They are both beyond what I can be presumed in everyday life to have thought about and to be able to understand and articulate. Thus, my usage will be a function of the definiteness of intention consistent with the context in which I use the terms *know* and *knowledge*.

It seems that the above considerations impose distinct limitations on the applicability of knowledge expressions, limitations that concern the use we have for the distinction between knowing that such and such and not knowing that such and such. We can put this more explicitly by saying that the considerations limit the range of situations in which an affirmation

that we do have knowledge or an affirmation that we do not have it functions informatively. To conclude that in such situations the distinction is reasonably withheld would be to argue for suspension of judgment, and in what follows I shall argue for the decision to abstain from trying to use the distinction between knowing and not-knowing in three—in part overlapping—kinds of situations. This amounts to a rejection of any yes or no answer to the question “Can knowledge be reached?”

First, though we *affirm*, for instance, the principle of contradiction, we nevertheless delimit the scope of the distinction in such a way that it does not make sense to state that the principle furnishes an instance of knowledge or of lack of knowledge.⁹

Aristotle himself argued against the application of the term *knowledge* (*epistémé*) to first principles (*archai*). The principle of contradiction does not rest on evidence, he contends, because to accept a proposition on the basis of evidence already presupposes that the principle of contradiction is true. And since one cannot be said to know something without implying that one can point to evidence, the principle of contradiction is not an instance of knowledge. In saying that one does not and cannot *know* any principle, however, Aristotle did not imply that we are not in possession of its truth. He seems rather to have meant to reject not only the status of knowledge but also the *distinction* between known and unknown with regard to the principles.

Today Aristotle would have some support in contending that we possess certain truths without evidence, but there are also strong movements in favor of looking at such “truths” as presuppositions, postulates, basic assumptions that are neither true nor false. (This would be my position, but it will not be relevant in arguments put forward here.)

Second, there is the situation of scientific research. The rules or principles of research methodology are such that at no point is the evidence for a proposition (if there is evidence for it at all) such that it cannot be increased. The rules themselves point out the ways of increase. The weight of a piece of evidence, for instance, a document containing the report of a set of observations, inevitably decreases with time—after a sufficiently long time it comes into the hands of critical historians who apply their own cold rules for assessing the weight of written sources. As long as this development is kept in mind, there is no occasion, except in popularizations, for using the knowledge and truth terminology.

CONCEPTUAL COMPLEMENTARITY OF EVIDENCE

The basic methodological model in conceptualizing the relation between a proposition of research and its reference is such that there is no necessary connection between evidence and reference: Whatever the evidence, the proposition may or may not be true. The status of evidence is in principle irrelevant because it is constantly shifting, whereas the proposition is either true or false all the time. If there is any kind of implied sceptical bent in this, and I think there is, then it is one that cannot appropriately be formulated in terms of knowing. For reasons already stated, to say that knowledge *cannot* be *reached* would be misleading. The terminology of evidence, confirmation, and corroboration is fitted to the model of unending research.

Although one may speak of a community of researchers, it is not of the kind in which one researcher “*vouches* for the truth” (Ayer 1956: 17)¹⁰ of what he or others say. Vouching, swearing, promising, or pledging one’s honor have no place in scientific methodology. The term *scientific knowledge* is widely used among researchers when talking about comprehensive sets of sentences, but in the more professionally serious and heavily conceptualized parts of their articles and books “I know that such and such” and related phrases are rare. There is little importance attached to considerations about which propositions have and which do not have the status of knowledge. Thus, to refrain from using knowledge expressions in scientific texts does not create any problems affecting research communications and is a common practice.

Use of “Know” and Definiteness of Intention

We have mentioned as an explanation of the fact that vernacular distinctions between what is and what is not known and between knowledge reached and knowledge not reached do not always work, a factor that we have termed *definiteness of intention*.¹¹

The general idea of degrees of definiteness of intention is as follows. When, under definite circumstances at a definite date, I use a sentence (or, more generally, an expression) to express something, I intend just this something and nothing else. Reflection, perhaps provoked by questions I myself or others pose, may, however, show or suggest indefiniteness in the form of vagueness or otherwise respecting the borders between the intended something and other things.

Certain distinctions may or may not have been present to my mind, or have been present with varying degrees of clearness. Or, although introspection does not reveal any such conscious distinguishing, nevertheless subsequent events both of a verbal and a nonverbal kind may allow us to posit that the distinctions were used. They were available or presentable to my consciousness even if they were not in it (*prebewusst*, or "preconscious," in the terminology of Freud).

Using an expression like "I know that such and such," it may be present to my mind or at least presentable that certain requirements (for instance, honesty and correct grammar) are (or are not) fulfilled. The definiteness of intention *in the direction* of one kind of requirement, for instance, concerning the distinction between true and false, may be sharp, but in other directions, say, concerning the distinction between truth and evidence, it may be small. In that case, although I may be able to report that in saying "I know that such and such" I implied that such and such is *true*, the question of truth may not have been present to my mind as a separate question from that of evidence. Confronted with the question of the quality of my evidence, I may report honestly that in saying I knew, I intended to require good or sufficient evidence and found the requirement satisfied, but I did not make a distinction between that and truth. Or else I find that to some extent I made a distinction and took it for granted that with such good evidence truth was guaranteed, or just there as a corollary. A great variety of other kinds of reports may be had from persons (professors of philosophy and others) trying to find out what they intended when they said they knew such and such.

Measurements of definiteness of intention can be surveyed by maps showing various directions of what I term *precization*. If T_0 is a sentence, say, "I know that Columbus discovered America in 1492," more precise sentences (which are not interpretations of each other), let us call them T_1, T_2, \dots , represent main directions of precization. Sentences still more precise than T_1 may be symbolized by T_{11}, T_{12}, \dots . The limit of the definiteness of intention of a person who has uttered T_0 is indicated by reporting which sentence is just within and which sentence is just beyond the discrimination of that person. Thus, one person may have intended something in the direction of T_2 (rather than T_1, T_3, \dots), but did not take into account the differences between T_{21}, T_{22} , and so on. Another may have intended T_{22} , but did not have sufficient definiteness of intention to discriminate be-

CONCEPTUAL COMPLEMENTARITY OF EVIDENCE

tween T_{221} , T_{222} , etc. He neither meant to express T_{221} nor *not* to express T_{221} . They are transintentional.

Let us now apply this apparatus:

$$1. T_0 \equiv \text{I know that } p$$

As first-order precizations, we could take some of the different conceptualizations in terms of three requirements. But we should also take some other formulations, as follows:

$$T_0 \equiv \text{I know that } p \left\{ \begin{array}{l} T_1 \equiv \begin{array}{l} \text{I am convinced that } p \\ \text{I have adequate evidence that } p \\ p \text{ is true} \end{array} \\ T_2 \equiv \begin{array}{l} \text{I believe that } p \\ p \text{ is true} \end{array} \\ T_3 \equiv \text{I have adequate evidence that } p \\ T_4 \equiv \text{I have verified that } p \\ T_5 \equiv \text{I am willing to vouch for } p \end{array} \right.$$

Many people have a definiteness of intention that is insufficient to discriminate even these first-order precizations. (They may show very sensitive discriminations, but not exactly in the directions listed.)

In order to explore the limits of the definiteness of intention among those who intended something like T_1 by T_0 a selection of second-order precizations must be used. They can be constructed on the basis of the following two sets of precizations of certain parts of T_1 and by precizations of a third sentence W_0 :

$$U_0 \equiv \text{I have adequate evidence that } p \left\{ \begin{array}{l} U_1 \equiv \begin{array}{l} \text{I have evidence satisfying the social} \\ \text{standard valid for the field to which} \\ p \text{ belongs, and justifying my saying} \\ p \text{ is true} \end{array} \\ U_2 \equiv \text{I have such good evidence that it is} \\ \text{unreasonable to doubt that } p \text{ is true} \\ U_3 \equiv \text{I have conclusive evidence that } p \end{array} \right.$$

$$V_0 \equiv p \text{ is true} \left\{ \begin{array}{l} V_1 \equiv \text{there is conclusive evidence that } p \\ V_2 \equiv \text{it is the case that } p \\ V_3 \equiv p \text{ belongs to an all-embracing} \\ \text{coherent system} \end{array} \right.$$

One of the precizations of U_0 is in all relevant respects identical with one of the precizations of V_0 . For those who by U_0 intend U_3 and by V_0 intend V_1 there is no special difficulty in answering both questions: "Do you have adequate evidence?" and "Is p true?" They take the questions to mean the same thing.

The other combinations (U_i, V_j) may be put in two classes: those for whom a positive answer to U_0 somehow implies a positive answer to V_0 , and those for whom V_0 is an entirely new proposition. For those who allow V_0 somehow to be implied by U_0 , a set of precizations of the expression W_0 ; if U_0 , then V_0 is worked out. Its function is to elicit reactions showing exactly how individual persons think U_0 is connected with V_0 .

The working hypotheses based on preliminary empirical findings are as follows:

1. Most people have a definiteness of intention using "I know that p ," and closely related sentences, that falls short of T_1, T_2, \dots
2. Very few people have a definiteness of intention sufficient to discriminate T_{11}, T_{12}, \dots
3. The smooth application of "I know that p " is hindered as soon as the precizations T_1, T_2, \dots are applied, and very strongly inhibited if T_{11}, T_{12}, \dots are applied.
4. Those who intend something definite in relation to first- or second-order precizations have difficulties in being consistent.

In this last hypothesis I refer to reactions to questions relating to evidence gathered by A supporting p and by B supporting not- p . People get into trouble when they are made aware of the possibilities of contradictions.

The general conclusion to be drawn is this: The use of "I know that p " has limited applicability. It cannot be mapped out in relation to a set of precise concepts; it works as long as such relations are ignored.

One of the reasons why it is rather difficult to keep variations in definiteness of intention in mind is that these differences are not usually indicated by separate words or phrases. To use such phrases as “loosely speaking,” “vaguely suggested,” or “with not too great an emphasis on unambiguity” would help very little and could make texts unreadable, or at least unread.

The statement on page 78 (under the heading “Requirements of ‘Knowing’ . . .”) is a case in point. Three “things” are “required,” and the requirement is then formulated in very loose words, considering the complexity of the subject. The first requirement, that one must be sure, is suggested by the vague words “one must be sure.” Some people tend to interpret these words in the direction of an actually felt, strong conviction. But in that case, many instances of “know” would be misuses, because claims to know are by no means always accompanied by any such strong feelings. Especially in the case of textbooks, or of a lecturer repeating certain statements for the tenth time, the only feeling to be experienced is likely to be one of boredom.

So there are a *variety of requirements* that might all be loosely expressed by “one must be sure.” Indeed, the phrase may not be so bad as an initial formulation, chosen because of, not in spite of, its indefiniteness, as is precisely the case on page 78, where in order not to close the doors to a number of interesting and relevant requirements, the formulations are purposefully kept vague.

But there is something more important to be remembered. Saying, as I have just done, that there are a variety of requirements that might all be loosely expressed by “one must be sure” (T_0), it is suggested that by taking a step toward clarification I could propose at least two formulations (T_1 and T_2) that in a simple, unambiguous way express two definite requirements, R_1 and R_2 . Implicit in this suggestion is that I have two such requirements “in mind,” that they exist already, and that the only question is how to express them.

The principle of limitation and relativity of definiteness, however, goes against this simplistic view of the situation. In order to bring out the full consequences of this principle, we need to substitute for the concept of precization that of direction of precization.

If T_1 and T_2 are two precizations of T_0 , and T_{11} and T_{21} are two precizations of T_1 and T_2 , two main directions of precization are indicated: that from T_0 through T_1 and that from T_0 through T_2 . There is in theory no halting place or end, but it is convenient to talk *as if* there were. We say

that "to be sure" may mean this or that, mentioning two precizations. These are taken as expressive of two concepts of being sure. But it would be better to talk of concepts in the direction of such and such and concepts in other directions, taking precizations as indicators of directions.

Applying this to what we have been calling "requirements," we may now talk of sets of three requirements (each ad hoc), delimited by three expressions, namely those used on page 78. That is, those expressions are used as initial formulations (T_0 , U_0 , V_0).

The question "Do everyday uses of 'I know that p ' satisfy the three requirements" may now be restated so as to avoid an important impasse:

Do everyday uses of "I know that p " satisfy the three requirements at least at one level of definiteness of intention and, if so, at what level?

This new way of putting the question does not exclude the possibility that one answers yes in relation to certain levels and no in relation to others.

From this new point of view, it is also clear that to speak straightforwardly about requirements is only justifiable in a very tentative manner: it may be that to people in a particular discussion no definite requirements are intended, in the sense that all the participants may have deliberately limited their definiteness of intention.

What is intended when an expression like "I know that p " is used in everyday situations is mostly and on the whole *not definite enough* in relation to questions of evidence and truth to warrant any explication *or* precization in terms of definite sets of precise requirements involving conceptualizations of "evidence" and "truth." All such sets of requirements will therefore represent transintentional entities—entities going beyond, but not necessarily against, the intention of the speaker, writer, or listener. If transintentional precizations of "I know that p " pointed in one main direction, furnishing consistent concepts of knowledge, it might not be highly problematic to use "I know that p " in situations in which it is necessary to show great care concerning the status of p . But epistemological discussion shows that vast difficulties have to be surmounted in order to find even one consistent trans- (but not anti-) intentional concept. The most reasonable policy is therefore to avoid the expression "I know that p " in situations in which a considerable definiteness of intention is required concerning that status of p .

CONCEPTUAL COMPLEMENTARITY OF EVIDENCE

The third kind of situation in which the use of the terms *know*, *knowing*, *knowledge*, and so on, are not to be recommended can therefore be described as the kind of situation in which a definiteness of intention in epistemic matters is required that goes beyond that of everyday situations. By epistemic matters, I refer to questions concerning certainty, evidence, and probability. Thus formulated, the third kind of situation may include instances of the two foregoing.

Expressions of the form “I know that *p*” lead to satisfactory communication if the required definiteness is low. The expressions “I have adequate evidence that *p*” and “*p* is true” function satisfactorily if used separately. What does not succeed is to explicate the first in terms of the last two. It does not succeed because, as we have seen, conceptual clarification of the terms involved makes it impossible to apply the metaphor of reaching truth when establishing truth is taken as a separate concept from acquiring adequate evidence. And if it is not taken as separate, the consequence will be that contradictory propositions can both be known. (Thus “I know that *p* and he knows that not-*p*.”)

Increased definiteness of intention shows itself in the application of a more discriminating set of distinctions. The third kind of situation might therefore also be described as situations in which a set of precise distinctions is presumed to be applied that is foreign to or inconsistent with the vernacular use of *know*, *knowing*, and so on. The notion of definiteness of intention is useful in order to make clear what kind of inconsistency is relevant here.

A Conclusion on the Complementarity of Truth and Evidence

That under certain conditions a set of distinctions implied by knowledge expressions cannot be usefully applied is a sufficient basis for recommending that the corresponding affirmations “I know” and “I do not know” be withheld when these conditions are valid. Under these conditions, then, it is reasonable to withhold judgment. According to the arguments, the only cases in which the conditions preventing applicability do not hold are those in which knowledge expressions are used with limited depth of intention, in fact when they function not to convey clear and precise distinctions, but as more or less conceptually innocent gestures, something approaching the “utterances” or “sounds” (*fonai*) mentioned by Sextus Empiricus (see

page 7) in connection with the sceptic's avoidance of doctrinally contaminated ways of expression. Thus the force of our discussion on the complementarity of truth and evidence is such as to bring out the strength of Pyrrhonian scepticism as described by Sextus.

The awkwardness of applying knowledge expressions when they are intended to convey in any precise manner the distinction between truth and evidence makes suspension of judgment at the corresponding depth of intention reasonable. When the depth of intention is such that "I know that p " implies complementarily that p is true and that I have evidence for p , the affirmation expressed by "I know that p " no longer has the applicability that the same expression has when the truth and evidence requirements are not intended as complementary. Thus, the applicability of a claim to know that such and such is a function of depth, or definiteness, of intention.

When depth of intention precludes the application of a knowledge expression, it does not, of course, follow that the statement expressed by it would be false. Our conclusion that in certain circumstances the application of knowledge expressions becomes awkward is not to be taken to justify a general negative conclusion about the possibility of knowledge, nor even about the difficulty of acquiring knowledge in these circumstances.

Nor are we to infer that because the application of knowledge expressions depends on certain distinctions not being made precise, these expressions "really" have no application, that their only possible use amounts to misuse. What has been pointed out is only that there are good reasons for not using knowledge expressions in certain circumstances, the circumstances in question being those in which the truth and evidence requirements of knowledge are conceptually distinguished. It is not implied that because in the vernacular use of these expressions there is a failure to think this distinction through, such use is in some sense debased. The inapplicability or awkwardness of a vernacular term in certain kinds of situations should not be taken to indicate an imperfection in the vernacular, but as a warning that the limits of the area of useful application of certain terms are sometimes closer at hand than one might expect.

V

Dialectics of Modern Epistemological Scepticism

Introduction

A good deal of contemporary discussion about knowledge incorporates arguments attributed to “the sceptic.” But as we have seen, this figure is a very different person from the sceptic outlined by Sextus Empiricus. Typically, scepticism is treated as a position that, if true, would be fatal for any attempted *philosophical* justification of ordinary notions of everyday or scientific knowledge. In fact, it might not be inaccurate to say that the position has been generated out of the very attempt to provide such a justification; at any rate, the significance of the modern sceptic’s arguments lies precisely in their power to demonstrate that no such attempt can succeed. Sextus Empiricus would label those who hold such a position Academicians, people who hold an absolutist kind of view that he clearly distinguishes from the “way” of the sceptic.

The modern sceptic, or epistemological sceptic, is made to argue that knowledge is impossible, to *insist* that we cannot know anything, to *affirm* that it is true or can be known that knowledge is not possible.¹ Naturally enough, although this sceptic’s arguments are taken seriously and some steps toward them are even accepted,² the position they support is not one that any flesh-and-blood philosopher is anxious to occupy. Indeed, to be forced to do so would most likely be seen as a professional defeat by those who look on the philosopher’s task as that of explaining, rather than replacing, well-established everyday beliefs. It is because the sceptic’s reasoning is considered intuitively false and yet logically impeccable that “his” arguments are subjected to close and careful epistemological scrutiny. Two features of modern accounts of scepticism are significant to our discussion, their avoidance of contextual considerations and the elaborate terminology and conceptual structures in which the arguments are framed. A typical proce-

ture is to consider with regard to some statement whether there are sources of error such that later events might cause one to retract a claim that the statement is true. If not, then the statement is "incorrigible," and we have no right to persist in refusing to affirm its truth on the grounds that it might be false. If there are conceivable sources of error, then the statement is "corrigible," and we are faced with the problem of whether or not we can "legitimately" claim to know that it is true.

To cope with this problem, a number of concepts are then introduced and developed. The effect of this is that the question of whether it is correct to use expressions of the form and normal intent of "I know that *p*" becomes a matter to be dealt with within an elaborate conceptual framework. The assumption is that such frameworks provide the terms in which a *general* question of justifying knowledge claims is to be answered. This general question is then treated as something over and above the question of particular contextual justifications for the use of expressions ("Should I have said 'thank you?' "). The epistemologist presumes his conclusions to apply in all contexts. Although he acknowledges that for all practical purposes there is no need to refer to his arguments, he thinks of them as showing us what, strictly speaking, we can or cannot say. The assumption seems to be that any well-equipped society catering to the enlightened interest of its members would make philosophical conclusions about knowledge available publicly, perhaps in reference libraries or, better, as an addition to the telephone service so that people could at any time or in any situation or stage of debate be given the authoritative view on the matter. (We might sympathize with the unfortunate man entrusted with the task of compiling such conclusions. Faced with arguments, authoritative and apparently technically proficient, to the effect that "material object" statements are/are not conclusively verifiable, that perception is a direct/indirect relation, and if indirect that "perception" statements then can/cannot be known with certainty to be true/false, that in making such statements we make/do not make inferences that, if we are to justify the claim to know such statements to be true must be/need not be valid inferences, and so on, he would almost certainly recommend suspension of judgment in his letter of resignation. Strictly speaking, of course, any headway he made would only add to the confusion.)

To deny that there were general questions about the applicability of knowledge expressions besides the considerations of context would be fruitless. It is a matter of fact that people ask them. But when they are asked and

answered in terms of explicit conceptual frameworks that have no part in ordinary usage, the relevance of the answers to ordinary knowledge claims becomes problematic.

The problem can be thus posed: does epistemology concern knowledge claims in general or knowledge claims only as they are understood by epistemologists, that is, in their own special frameworks? If the former, then we must suppose that the typical epistemological conclusion—for example, that knowledge claims about material objects cannot be justified—leaves the ordinary kinds of justification intact. The latter are all right in their place, and it is not for the epistemologist to question, say, the standards accepted among bird-watchers or people who want to know the time. He does not wish to pose as a more conscientious bird-watcher and time-teller; nor does the epistemological sceptic conclude that no bird watching or time telling can be conscientious enough. Rather, he questions whether the standards accepted by bird-watchers and time-tellers amount to valid inferences, whether they allow us to bridge “logical gaps,” and so on. The question of justification, therefore, is one that he takes up at a quite different level and in a terminology quite alien to that of the average, or even exceptionally scrupulous, bird-watcher or time-teller. His attitude, in fact, is parallel to that attributed to the sceptic when, as we noted in an earlier chapter, he is said to arrive at a *modus vivendi* by accepting that it is one thing to live (to watch birds and tell the time) and another to philosophize (to make valid inferences and legitimate claims). Then, however, we pointed out that since the Pyrrhonian sceptic accepts no philosophical framework, this *modus vivendi* is not available to him. In effect, a justification of Pyrrhonism is based on the fact that he can respond to his surroundings verbally, and in other ways, in a manner that does not require a corresponding response to propositions. Thus, he is not compelled to adopt two minds toward a proposition, one practical and the other theoretical. The propositions he is asked to accept on the basis of his experiences have a depth of intention that bears no comparison with that of his own straightforward acknowledgments of the appearances.

This suggests a totally different view of the significance of epistemological discussion, and it is this view, the second alternative, that we shall explore now. We shall look at philosophical discussions of knowledge as linear extensions, a kind of tenacious continuation, of ordinary dialogues with a stress on explicit frameworks that is not found in the initial stages. In-

stead of regarding the epistemologist as an *ex officio* member of the community, we shall see him as a participant in a comparatively rare kind of dialogue with a stress on explicit frameworks. The effect will be to present his conclusions, in particular sceptical conclusions such as “Nothing can be known” and “No statement can be known to be true,” as statements in need of severe qualifications.

Standards Relative to Stage of Dialogue

Our main task will be to explore, first, the kind of debate or sets of verbal exchanges that foster or tend to foster (modern) scepticism, and second, the possibilities of rationally reconstructing such a tendency. This line is adopted because it seems to me that despite the wide acceptance of the view that we ought, as philosophers, to appeal to particular situations or occasions, there has been a sad and significant neglect of one kind of situation, namely that which occurs as a link in a long chain of discussion. Such links, and the chains they help form, bring out an important aspect of the use of language that can do much to illuminate the dialectics of modern scepticism.

Philosophically, the most familiar kind of verbal chain of discussion is the dialogue, and the points I would like to elaborate here arise from simple considerations of the way in which, after three or four exchanges of views in a dialogue, an expression like “I know” can come to be used in a number of quite different ways.³ More particularly a use of “I know that *p*” at the opening of the debate may be very different from an “I know that *p*” repeated after a long argument for and against *p*. The claim to know at the opening of the dialogue could be an innocent offhand gesture compared with a coolly insistent stand in the face of arguments and after extensive deliberation.

It is because of this stress on developing dialogues that I call my notes on modern scepticism dialectical. Perhaps I should apologize to Hegelians for this old, but not very profound or Hegelian, use of the word, and to Austini-ans for employing such a pretentiously solemn one.

Consider first this example of a simple dialogue and its consequences for the use of “I know”:

1. A: Do you know where Mr. Jones lives?
2. B: Certainly I know. 12 Park Avenue.

3. *A*: Letters to him written to that address are returned by the post office.
4. *B*: Is that so?
5. *C*: Do you know where Mrs. Jones lives?
6. *B*: Mm, I was sure 12 Park Avenue was correct. But after what you said—I'm not so certain.
7. *C*: Do you know the address of *any* of the people we are going to invite?
8. *B*: I'm sure about some of them.
9. *C*: Well, this is of deadly importance. Do you actually *know* any of those addresses?
10. *B*: I dare say I do know.

Now, if at step (10) of the dialogue, *B* persists in using the term *know*, he is likely to have used more rigorous requirements of evidence than at (2). He is also likely to answer with higher definiteness of intention in relation to both relevance of evidence and gap (or difference) between evidence and the evidenced. Or, to put it more simply, he sees the need for evidence as he is made more aware of the divergence between his contentions and the evidence he has for them.

This shows that what an individual finds reasonable to require of an "I know that *p*" claim will show variation as we move along the steps of a dialogue. Moreover, any such variation might well be classified as "reasonable" since there seems no reason why we should describe standards of evidence that remain constant as reasonable or normal and take the fluctuations in particular cases as deviations from a stable norm.

Consider, for example, how three people, *A*, *B*, and *C*, might embark on the complicated project of giving a fairly large party. "Knowing where somebody lives" may, after some (normally) heated dialogue, rank high in regard to required *standard* of evidence, that is, in what *A*, *B*, and *C* accept as *adequate* evidence—higher, maybe if such a comparison could be given a more satisfactory meaning⁴ than the overworked chemist requires when asking his assistant (at the beginning of a dialogue): "Is the stuff to my right or the stuff to my left triamidotriphenylcarbinol? Do *you* know?" The everyday and the scientific are not clearly separated, nor the philosophical and the unphilosophical, as to level of requirements. Variation in stage of

development in any (normal) interaction between persons can show marked (yet normal) fluctuation in standard of evidence.

In order to avert a premature suspicion that in talking of variation in terms of increase in requirements I wish to push readers in the direction of scepticism, let me stress that at the end of a dialogue, requirements may very well drop. Suppose *C* is to be the financial supervisor of the party and that he tends to say, "I do not know the price; I shall have to check it and you must help me." If *A* and *B* discover that what *C* labels his "wild guesses" are correct to the penny, there will be recriminations: "You say you don't know, but you know very well." *C* has to bring his requirements down a step; his environment will legitimately put pressure on him in that direction. He has been overcautious and hampered the preparations for the party.⁵

Thus, either a lowering or an increase of standards may be the "normal" after certain phases of a dialogue. Instead of the "normal," however, I would prefer to talk here of the "rational," that is, of standards being decreased or increased for good practical reasons.

Maximum Requirements

It is quite natural that increases in requirements will be discussed in terms of how to *avoid* mistakes, how to *guarantee* truth, of how to eliminate *every* source of error. But, of course, all these strong terms must be taken with a grain of salt. In practice, *far-fetched* sources of error, such as earthquakes in regions where for a long time there have been none, will be frowned on as motives for changes in requirements. Although "every source" means every source, one must not be fanatical about it; one may, reluctantly or impatiently, acknowledge possibilities of error, yet dismiss them with an easy mind as of no significance.

In short, there is in everyday life always a nonconceptual frame of reference determined by practical purposes, responsibilities, and so on. A dialogue, however, may sometimes concentrate more and more on a conceptual frame, on a system of significations, and then every source may be taken in an absolute sense, that is to say, *every* source. Once this sense is given and assumed, it may then appear preposterous and ridiculous to ask for a guarantee of the elimination of every source of error, but the idea is still one that can be understood. That is, I can say, "I see what you mean, but to require

that *every* source be eliminated is of course to require the impossible. Who has ever asked for that?"

We should now take up the question of what the maximum increase of (rational) requirements of evidence would be in order to justify (not verify) "I know that *p*." But since here and in the rest of the discussion I shall assume that there is a requirement of evidence for justifiably saying "I know that *p*"—whatever the *p*—I should first of all offer some comments in support of this assumption.

In taking it for granted that if I say or think "I know that *p*," I can legitimately ask, at least myself, what the evidence is irrespective of the kind of *p* but not irrespective of the situation, I am assuming something that can be termed propositional universality, as opposed to situational universality. Ayer, Austin, and others have argued against the propositional universality of the evidence requirement, that is, against the view that evidence can be properly asked for whatever the proposition claimed to be true. But, although I shall not further substantiate my disagreement here, I think they have only succeeded in showing that for some statements—for example, about my own pain or where I live—a question of evidence is out of place in everyday life (see, e.g., Ayer 1961: 292). It is characteristic, however, that these cases are very near the limits of the useful application of "I know." Wittgenstein's remarks (1958: sec. 246) are relevant here, undermining the distinctions between "I know" and "I do not know," and between "I doubt that" and "I do not doubt that," in reference to such statements as "I am in pain." And if it is ever pertinent to say to someone else "*I know* I am in pain," it seems to be in just those cases in which others might have reasons to doubt. In what follows, I have for this reason not found it necessary to discuss occurrences of "I know" in which requirements of evidence are out of place.

Certain details in Ayer's exposition deserve closer attention here. In particular, Ayer defends the view "that there are some propositions that we can claim to know without having to know any other propositions as reasons for them." "If someone claimed to know that he was in pain or that he was daydreaming about being rich, it would seem absurd to ask him what evidence he had for believing that these things were so" (Ayer 1961: 292).

It would be absurd, perhaps, to expect *A* to put evidence at the disposal of *B* so that *B* could independently from *A* estimate the evidence *A* has at *his* disposal. For *A* to ask "Am I really daydreaming about being rich?" is

not absurd. He may have the suspicion that he is perhaps not daydreaming but making pertinent reflections: "What would I do if I doubled my income?" Or, he may on second thought find that he is or was dreaming about being a playboy—the question of money was not really touched on in the dream, he might have borrowed it. It is clear that as soon as one begins to become interested in exactly what happens and in classifying it by using certain terms, there are ample grounds for asking about evidence. If the evidence is expressed in words, propositions are formed, and whereas the dogmatist will claim them to be true, the sceptic will offer them for inspection.

In spite of his doubtful contention about the absurdity of asking (one-self) for evidence, the first quotation from Ayer, as far as I can see, expresses a tenable position. If I say "I know that p ," p may belong to a field in which I would not in everyday life form propositions in support of knowledge claims. The "How do you know?" may be left unanswered, or one may say, "Obviously I know," "I know that I know," and so on.

In certain dialogues, for example those concerning trustworthiness or introspective psychology, the status of knowledge that goes unchallenged in everyday life must be considered. The result always seems to be that insofar as the propositions state something at all, there are sources of error. Here the history regarding the psychology of degrees of intensity of attention affords an interesting field of study. This history shows that propositions that seemed to be based on the most direct, unquestionable introspection and that were made by trained observers, came to be considered doubtful and not acceptable as expressions of knowledge (cf. Spearman 1937).

To return now to the question of what would be the maximum increase of (rational) requirements of evidence in order to justify the expression "I know that p ," we can at least take it for granted at the outset that requirements may vary markedly, even in relation to a definite question, and that even in highly scientific contexts the requirements might be very low. Where would such a maximum increase land us? Would it *necessarily* prevent us from using the expression "I know that p "? Would it at least as a matter of fact prevent us from using it? In order to answer this, some preliminaries will first have to be discussed.

First of all, let us examine the basis for contending that there are definite requirements to be satisfied in order justifiably to say "I know." Perhaps the best way of bringing out the fact that there are such requirements is to

describe situations in which people are taken to task for having used the expression “I know” (and similar phrases) when allegedly they were not entitled to do so. From a variety of cases — some of which might be constructed, but agreed on by a panel of experts — one might then try to abstract rules. That is, one might try to construct more or less general requirement-hypotheses to fit the cases. (It would obviously be incautious to adopt general formulations proffered by people in concrete situations.) Such requirement formulations, with careful delimitation of intended range of validity, would not necessarily have any normative status vis-à-vis the language community, but they would at least represent attempts at clarifying and codifying the use of “I know” in terms of definite requirements.

It should be remarked, however, that it cannot be taken for granted that by increasing the number of cases surveyed, more and more definite requirements fitting the cases can be constructed. In general, there is in fact no good reason to believe in the “existence” of general regularities that would be susceptible to indefinite refinements in structure and content. In what follows, I shall speak as if one could abstract and extract requirements from surveying concrete cases of the use of “I know.” It is at least a useful fiction for purposes of exposition.

Maximum Strengthening of Requirements in the Face of Mistakes

Sometimes, even though the requirements of knowing have been satisfied, it is agreed a little later by those involved that there was, after all, a failure, a mistake. The normal thing to do, if it is important not to fail, is to take heed of the mistakes, that is, to increase the requirements covering that kind of situation in which, admittedly, a mistake was made. Then next time in such a situation I shall not claim that I know. My claim will be more modest, or I shall apply some tests such that requirements of a higher level are satisfied. Only then shall I say, “I know.”

Let us suppose that, unhappily, I make a mistake in the very same kind of situation in spite of applying the new, more severe tests. It will now be reasonable not only to increase requirements in the same kind of situation but also to increase them a little over a wider field. It is to some extent arbitrary how one is to assess the kind of situation at hand, and the consequences

it has for other situations. A decision will be made, however, and it can be described as affecting not just the old kind of situation but also a more general kind.

If we suppose that this unhappy trend goes on for some time, there are two kinds of adjustments that are of special interest: one in which requirements are always given an increase of rigorousness and in an expanding area, without covering any one specified area, and one in which eventually the use of "I know" is *in complete generality* taken to be incautious or inadvisable, other expressions being recommended in its place.

Let us inspect a hypothetical case study of how someone might have come to "know nothing":

On certain occasions I discovered that a proposition of whose truth I had been sure, and on adequate evidence, was in fact false. Having had adequate grounds for my certainty, I may be said to have been justified in claiming to know, but in fact did not know. This discovery of error in respect of a previous well-supported certainty occurred on numerous new occasions, and each time I felt greater reluctance to claim to know. Eventually, I came to lose all confidence in claiming to know, since I was never sure the evidence excluded sources of error. Because of my never being sure, I cannot now be said to know anything.

Now to what extent and in what way can such a report, biographical note, or psychological case study be relevant to the questions raised in the modern discussion on scepticism?

The actual use of "I know" among psychiatrically normal persons of a language community is at least relevant to conclusions about how requirements remain constant through time intervals, or are increased or decreased in various kinds of situations. It is difficult to see how one might legislate what would be a maximal increase beyond which one could not properly, or sincerely, refrain from using "I know." Therefore, if such an unwillingness to use "I know" became more and more widespread, we might envisage circumstances in which *knowing* became not only unfashionable but totally extinct, insofar as "I know" implies "I am convinced." Such a possibility is not to be excluded. After all, many other words have become employed more and more rarely and have tended to become extinct when occasions for their use grew sufficiently scarce; this might also become the case with "I know." As far as linguistic considerations are concerned, then, there are no objec-

tions to a process of development culminating in the extinction of the use of “I know.”

Now let us look a little more closely at the repercussions of unexpected events on standard requirements. Repercussions on standards may be said to have three dimensions: breadth, strength, and duration. Breadth measures the class of cases or situations covered. If I make a mistake in Latin grammar in spite of satisfying the standards, I may for a time increase my standards both in Latin and in other grammars, or only in Latin. Where the failure is a damaging (shameful, embarrassing) one, I may even, for a short time, show increased standards in every subject. (All within the very elastic limits of psychiatric normality.) This is the breadth dimension. If we say that the increase may be very marked or only just perceptible, we are using the dimension of strength, which is self-explanatory.

Third, if we receive no more rude shocks we simply change back to old habits and the increase in requirements gradually disappears. Here we have a time dimension, one that may be rationalized by dividing up time in terms of situations and by making use of inductive principles.

So much for the repercussions of failures. But successes and triumphs—that is, astonishing, unexpected, and important successes in “I know” situations—also have repercussions. More often than not their effect may be a relaxing one; standards drop, and inductive thinking may be the cause. As suggested by Ayer (1956: 33), if an individual has a constant flow of successes, he may be led altogether to stop searching for evidence. This, however, would tend rather to mean that “said by Mr. So-and-so” was to be taken as adequate evidence. On the other hand, successes can sometimes result in increases. For example, I may wish to retain a reputation that if *I* say I know, others may be perfectly sure that it is true.

So much for individual successes and vicissitudes. There are, of course, fluctuations in collectivities, too—in communities interacting with individual experiences. During wars and other periods of intense community life and shared experiences, the collective changes are more marked and more easily break through the individual variations. (One *should* know the enemy soldiers are cruel. Whatever the incidents that in other circumstances would certainly have repercussions, one must continue to be willing to say “I know they are cruel.”) In some kinds of situations, requirements for “I know” can drop toward zero; in others they might increase toward infinity.

Maximum and Abnormal Repercussions

We are tempted to classify some changes in standards as “irrational,” others as “rational.” Which classification we adopt depends to some extent on our system of values. In any case, there is always the possibility of constructing a set of rules from which we consider rational changes of standards to be derivable.

Suppose in giving a lesson in geometry I say that I know π to be 3.14158 . . . and later admit failure, being convinced by others that π is 3.14159. According to my (and many others’) criteria, I would behave irrationally if this prevented me from answering positively to the question whether I know that 5 multiplied by 6 is 30. It would be much too drastic a personal reaction to my failure for it to form the basis of a mistrust in my “knowledge” of the simple multiplication table; such a repercussion on standards would be unreasonable. But sometimes severe repercussions *are* reasonable. And even where they are not, the question of the use of “I know” cannot be solved by legislation according to the way rationalists would wish it to be used.

A succession of failures may cause me to refrain from using “I know” either in important matters or generally. The two cases are not as different as might be thought at first glance. If I renounce its use in important matters, I may still use it loosely.⁶ (“My wife never lets me out, you know.”—“I know?”—“Of course, I’m telling you.”) If reproved for doing this (“But you have just refused demonstratively to say *you* know what would be the right thing to do in our present predicament!”), I may point to the difference. (“Of course, you and I don’t, strictly speaking, know this about my wife. Have you lost your sense of proportion?”) When one is in a bad predicament and conscious of one’s responsibility, one finds it irresponsible to say “I know.” Thus, to refrain from using “I know” in important matters is in certain senses to give it up in general, as far as cognitive, serious purposes are concerned.

I may be considered normal psychiatrically, but still refrain from using “I know” in important matters for the rest of my life. Or I may promise myself to refrain from it, but fail; an unwillingness to say “I know” might, after all, in some situations or in some communities be as embarrassing as refraining from saying “thank you.”

To refrain from using “I know” in important matters may also express one’s awareness of *a general fallibility*. According to Austin, however, general fallibility by itself cannot be a rational motive for saying “I know noth-

ing” (in the modern sceptic’s way); there must be additional premises. If stakes are small and there are discoverable differences in the chances of a mistake, why should I *always* avoid claiming to know?

Yet, and perhaps in extension of Austin’s point, in matters of life and death, the awareness of the importance, the awareness of the terrible consequences of failure, may rationally motivate me to renounce the use of “I know,” whatever the evidence. In relation to certain subgroups of situations, therefore, “I *know* nothing” may be an adequate expression of my opinion and attitudes (Austin 1961: 65–67).⁷ As pointed out by Ayer and others, in saying I know something, I am vouching for it—thus my assertion that it has some important social implications. But then if I find it unjustifiable to vouch for (and, perhaps, to swear to) something, finding that to do so would be inconsistent with my value system, I may stick to my *personal* conviction, yet still in a rational way, and in view of conceived failures *abstain* from using “I know,” or even find it justifiable to say “I know nothing.”

Socially I perform my duty as a witness, for example, when I painstakingly describe the evidence I think I have, adding on request any further information about my personal conviction or belief, and my personal estimate of the chances of my being mistaken. The rest I leave to the jury and others concerned. If some will say that in the light of my total statement I know, or that I do not know, I will not object. *They* may say that I know even if I would not. Only if I were forced to take a stand would I give my reasons for avoiding the use of the distinction between known and not known in questions of life and death. If, on the other hand, I do employ the distinction and am sure about something, so long as certain other requirements are satisfied, I would be perfectly correct to *say* “I know that such and such.” This would continue to be so even if subsequent events proved me wrong. For then what was wrong was what I said was the case, not my saying that it was the case. It would be misleading here, too, to say that I did not know that *not* such and such if the context suggests that this implies some degree of blame: “You should have known that not such and such, but you didn’t.” The circumstances in which it is right to *say* “I know that such and such,” even if what I claim is subsequently shown to be false, are precisely those in which it would be wrong for me to say “I know that not such and such” despite the fact that this latter claim would have been true.

The most important point for us here is to make a distinction between having a piece of knowledge and having good, standard, or adequate rea-

son, evidence, or grounds for being certain. If I hesitate in, or abstain from, saying “I know it” because I see (am sure I see) a *remote possibility* of being wrong, this does not necessarily violate any explicit or implicit rules of ordinary language. It may be a symptom of overcautiousness, hypochondria, hyperactivity of the imagination, or inability to square up to some formidable responsibility, but all of this may still be within the range of psychiatric normality. My mind is not deranged; I am still a member of my language community.

Moreover I may be perfectly aware that others are much more free than I am in their use of “I know,” and disapprove of this—all *within* the framework of our common language, which is after all not the monopoly of one type of person.

One might bring out the cognitive factor separate from the use of “I know”—its rationality in terms of inductions and in terms of limitations on the fruitfulness of terminology. If there have been more failures than were expected and are tolerated within a sphere of action or investigation, it is reasonable to increase standards in order to decrease the risk of continuing a high rate of failure. No doubt some kind of inductive conceptual framework is best suited to articulate the rationality of the increase. Second, the fruitfulness of a distinction has its limitations. Sometimes the social aspect of vouching and guaranteeing is considered unnecessary. Why then use “I know”? If what I aim at is an independent evaluation of *p* by others, I modify your wording as a rational means for reaching that end. (A: But do you *know*? B: I am convinced, but *this time* you’d better see for yourself.)

“I Know Nothing”: General Linguistic Counterargument

There have been various arguments designed to rebut the claim that one can reasonably abstain from the use of “I know,” or the slightly different and stronger claim that the utterance “I know nothing” can be in order.

An argument that we certainly know at least one thing is sometimes based on a kind of linguistic *a priori*: since there is “in our language” (I should prefer “in the vocabulary of our language”) a distinction between “knowing” and “not-knowing,” there *must* be an exemplified difference between what is known and what is not known. How else could the distinction have been introduced and understood? After all, we *learn* a difference between the terms from actual instances; so if there *are* no such instances, then

we cannot learn about such a distinction. In much the same vein it has been argued that not all things can be illusory, at least some things must be veridical. Unless this were so the notion of illusoriness would lose all its point.

But surely a child could be taught to use "illusory" perfectly correctly by instances such as the difference between the neighbors' spurious Santa Claus (being only the father in disguise) and its own family's real Santa Claus, between the neighbors' naughty boy's spurious courage and his father's genuine courage? In a similar way, generation n of adults introduces the difference in terms of their (nonillusory) ideals and the (illusory) ones of generation $n-1$. The difference between "illusory" and "not illusory," as well as those between "known" and "not-known," "veridical" and "not veridical," can be introduced and learned on the basis of the beliefs or convictions of the persons concerned. Whether the beliefs are correct or not (in an absolute sense) makes no difference whatsoever.⁸

If boy A has learned to use "illusory" and "not illusory" simply by one hundred examples, and later in life he considers the cases of nonillusory things to be similar to the cases of the illusory, we may find him saying *all* things are illusory.

There is nevertheless a way in which a paradigmatic learning theory may be important in understanding rather different positions that have been termed sceptical. Thus, when writing his famous *Why Nothing Can Be Known* (*Quod nihil scitur*), Francisco Sanches (or Sánchez) cannot properly be said to have overlooked that he knew he had (or did not have) a toothache. There are several uses of "I know that p " (and related terms), and one of them relates to "matters important to the soul," such as religious, metaphysical, and scientific doctrines. This kind of use was already well established by the time of Sextus Empiricus, and Sanches, too, was certainly aware of it. Moreover, he may be said to have developed his awareness paradigmatically, seeing it applied solely in connection with doctrines, and not in connection with utterances such as "I have a toothache." But then by applying the known versus not-known distinction within the sphere of that particular use, Sanches neither had nor did not have a toothache, insofar as neither the assertion that one has nor the assertion that one does not have a toothache constitutes a doctrine.

The point of this example is that the terms *sceptic*, *sceptical*, and *scepticism* have been applied for a very long time, and they are closely connected with uses of "knowing" that may very well not be the first uses one learns as

a child. Nevertheless, such uses of “knowing” are learned somehow. A debate on scepticism might certainly refer only to “knowing” on the infantile level, but it ought to be clear that this does not cover all interesting uses of “knowing” and especially not those important in philosophical literature.

Circularity of the Sceptic’s Argument

There is another shortcut aimed at avoiding scepticism: It is claimed that the utterance “I do not know anything” is absurd or inconsistent because I implicitly assert that I know that I do not know anything. But this anti-sceptical argument is untenable. It rests on the false assumption that the ways of announcing “I do not know anything” can be reduced to one, namely, “I know that,” or to some others from which “I know that” can be derived. There are, however, a number of ways of announcing that do not fulfill this requirement, for example, “I am perfectly convinced that” or “I believe that.” Sextus Empiricus can be studied with profit on this point.

Let us now turn to the utterance that we are presuming to be made in complete seriousness, “I cannot get to know anything.” Against its tenability, considered as a statement, there are strong arguments of various kinds. Let us first consider those arguments that claim the existence of conclusive, unretractable, and irrevocable evidence.

The Conclusiveness of Conclusive Evidence: Social and Linguistic Rightness and Truth

In philosophical debate there are still symptoms of a confusion between the right to say something—for example, the right to say “It is true that *p*,” “There can be no doubt that *p*,” “Of course, *p*,” or “In this I cannot possibly be mistaken”—and the certainty that *p* is true. If “I know that *p*” is interpreted in this confused way, the statement may be thought to be unretractable if in fact I had the right to say it and whether or not *p* is later considered false. Let the relevant distinctions be repeated once more.

To assert “I have conclusive (unretractable, irrevocable, decisive) evidence” or “This closes the matter once and for all” or “Here no doubt is possible” or “It cannot conceivably be otherwise” or “This is absolutely certain,” is justified in everyday life if certain requirements are fulfilled. In the

course of a dialogue standards may vary, just as in the case of “I know.” Unexpected kinds of failures and successes can occur, and they have repercussions of various kinds. Here is a little dialogue for illustration:

- A: The two papers *are* in this room.
B: That is simply inconceivable. I have searched for them all day in this very room. It is absolutely impossible that they are here. I know they are not here. The evidence is utterly conclusive.
A: Well, look here, then. Here is one of them.
B: So it is. I don’t understand this.
A: Should we look for the other?
B: Well, yes, we’d better do that.
A: It is not inconceivable that the other is here?
B: Hmm.

If *B* had searched the room all day, one would allow that he was entitled to use expressions like “absolutely impossible,” “perfectly certain,” and “utterly conclusive.” However, there is not the slightest guarantee that he would not have to retract. The justifiability of exclaiming “conclusive!” does not exclude having made a mistake. Douglas Arner (1959) stresses that in the face of conclusive evidence, any further demand for evidence is unintelligible:

It is quite true that grounds treated as conclusive are always short of a demonstration and even occasionally prove inadequate. The important thing is that conclusive evidence *concludes*: no demand for more evidence in the face of conclusive evidence is intelligible. (Arner 1959: 88)

If Arner could only tell us what conclusive evidence looks like so that we could infallibly recognize it and avoid talking unintelligibly! But his attention soon shifts to what *counts* as conclusive:

What counts as conclusive evidence is a matter of tacit, continuing agreement among the users of the language. We learn early that we are not to claim knowledge unless we have met certain requirements in the way of qualifications and evidence. These requirements are founded chiefly on what grounds have proved adequate almost all of the time. . . . (Ibid.)

Here there seems to be no distinction made between “The evidence for p is conclusive” and “The evidence for p satisfies what counts as conclusive evidence.”⁹ The latter may be true despite the falsity of the former, that is, if “conclusive evidence” is taken to imply truth, and I think it does for most interpretations. “I have conclusive evidence for p , but p may be false” does not work.

On the most primitive everyday level, there is perhaps a good deal of tacit agreement about what counts as conclusive evidence, but it certainly seems more appropriate to reserve the conceptual distinction between conclusive and nonconclusive evidence for when there are explicit premises and conclusions. The distinction seems to belong to that level of talk. And at that level, one is aware of the difference between having the justification for *calling* some evidence “conclusive” and conclusive evidence itself. Here, as with knowing, I may be perfectly correct in saying something, but completely wrong in what I say. What counts as conclusive evidence that a person is dead is, for obvious reasons, rather strong evidence among responsible physicians, but once in a million or more cases a frightful mistake is discovered. Some people, of course, will find these cases uninteresting because for all practical, normal, ordinary, everyday purposes they just do not occur, but others will find them extremely interesting.

“This evidence is (already) conclusive. May I, please, have some more?” This would be a rather original demand, but at least to me perfectly intelligible. For there may be people who make the mistake of not taking the evidence to be conclusive, and they may want me to be able to add some pieces, some additional witnesses, and so on. “This evidence must count as (can safely be treated as) conclusive. But may I, please, have some more?” This kind of question is not only intelligible, but to pose it may sometimes be a duty. There are no definite requirements of conclusiveness; they vary in relation to a number of factors (responsibilities, consequences of failure, past experience within a narrow field to which p belongs, past experience in a broader field, etc.).

The inadequacy of the everyday and the normality arguments for establishing what is conclusive evidence is well illustrated if one considers utterances such as “We are never justified in being absolutely certain” or “I do not know anything whatsoever” or “Nothing *can* be known.” We just have to reflect that there are, on the one hand, requirements for being justi-

fied in saying such things (try it out at some parties!) and, on the other, *admitted* failures; that is, those engaged may, after some time, retract and say “I *do* know something, after all.” Nor is the requirement for announcing “failure” universally higher than that for announcing “success”; that is, it is always equally possible that some failures may turn into successes.

I think we can safely say that sceptical locutions in everyday life are not intended to cover, systematically and in relation to current conceptual frameworks, an assertion “I do not know anything.” Compared with their epistemologically intended counterparts, such everyday locutions are offhand and unsystematic verbal gestures. And even if they are subjected to some form of regulation in the shape of justifiability requirements, these latter are of a fairly indeterminate and unconceptualized sort. Instead of everyday utterances, therefore, we shall take up sentences such as “I do not know anything” as they appear to be placed in philosophical debates, in the wide sense of “debate”—that is, in discussions that intend such sentences in a more systematic and conceptualized way than that in which they are used in everyday life.

Examples of Things We Know or Can Know

Epistemologists have provided us with many good examples of the kinds of things we know or can know. The method by which they are introduced goes more or less as follows. First, a certain situation is described, and then in that situation we are to suppose an utterance of the expression “I know” (or something equivalent). Then the author of the example, sometimes after adding in some convincing details, appeals to the reader, as much as to say, “Now you see, you doubting Thomases! Repent!” But of course, if the examples are to have their proper force in a debate, the adversary must not be thus pushed or terrorized into accepting them. One particular method of persuasion, astonishingly common all the way from Plato to Austin, amounts to little more than saying something like, “Suppose I see an elephant and I say ‘I see an elephant,’ could I be wrong? Would I ever have to retract?”

The procedure is intended to convince us that there are frequent and indisputable cases of our knowing that things are what they are, or as they are. Austin (1962: 115), for example, asserts that some statements “are *in fact* incorrigible” (Austin’s italics). They are “quite certainly, definitely, and un-

retractably true" (Austin 1962: 115). And, implicitly, he takes this to amount to a proof that there are p 's such that I know that p .

Thus, "If I watch for some time an animal a few feet in front of me, in a good light, if I prod it perhaps, sniff, and take note of the noises it makes, I may say 'That's a pig.'" This statement "will be 'incurrigible', nothing could be produced that would show that I had made a mistake" (Austin 1962: 114). Here Austin will have us assume, entirely on his own authority, that he *is* watching for some time, that it *is* an animal he is watching, that the light *is* good enough for the purposes at hand, and that he *is* sniffing the animal in question. By being made to postulate the truth of so many premises, we become confused as to how the conclusion could possibly be false. But of course we should recall that an implication comprising a conjunction of a swarm of antecedents and only one consequent is among the very weakest that can be made.

It may be conceded that Austin, under most circumstances in which this could have happened, would be perfectly justified in saying what he said in the example. But it is hard to accept that "nothing could be produced that would show that I had made a mistake." Very much depends on one's acquaintances, whether they have a penchant toward practical jokes or include an amateur magician. (If we are asked about pigs with a professional magician nearby, we are wise to bet only a small amount and keep our "knowing" under strict control.) In short, even a good amateur magician could bring us into a situation such as the one Austin describes and provoke us into saying, "I know this is a pig" and soon after make us *retract*.

There is something to be said in general about examples that contain plenty of detail about what has already been done in order to ensure that p actually *is* the case. The doubter or disbeliever is, as it were, politely but authoritatively requested to accept all the details as true of the situation in which "I know that p " was uttered. He has then nothing to complain about. But it is easy to forget that if the example were true to life, the doubter should have had the opportunity to inspect the details for himself; he would not have to rely on hearsay.

Consider in this respect the many reports of ghosts, for example, which *if* the apparently true details concerning the situations are accepted, are overwhelmingly convincing. The contemporary ghost-hunter, however, has professional rules that make him for the most part withhold judgment until he has the opportunity to report about the situation himself.

Consider another example: Someone remarks in casual conversation, “As a matter of fact I live in Oxford.” According to Austin, the speaker “knows it to be true (or, if he is lying, false)” (ibid., pp. 117–18). But many people are in trouble because they *want* to be able to say truthfully “I live in such and such town (city)” —because an authority of some sort can otherwise deprive them of certain privileges—but they are uncertain. The criteria are complicated, and their satisfaction is not always clear. Incidentally, Agrippa of Nettesheim, a famous, rather unruly and restless “sceptic” in the history of modern philosophy and author of *Of the Uncertainty and Vanity of the Arts and Sciences* (*De incertitudine et vanitate de scientiarum et artium*), could probably only rarely give an account of where he lived if he could have been said to live in any definite place at all. J. Wasiutyński (1963: 130) has assured us, however, that there “can no longer be any doubt that we live in a spiral nebula.” So, is no one to worry any more about where he or she lives?

The gist of the matter seems to be this: We take “I live in Oxford” to be beyond any doubt and requiring no evidence because we place ourselves in a particular situation in which we have no *reason* or *incentive* to doubt. But the claim that I live in Oxford is not made more certain by being expressed in a situation in which the reasons and incentives to doubt its truth are reduced. To say that it was, would be to misunderstand the relation between a statement and the conditions in which it is made. The conditions are not to be seen as part of the claim and therefore cannot be taken to determine whether or not it has the property of “being certain.” A claim made in one situation that excludes reasons and incentives to doubt its truth can be made in different conditions in which such reasons and incentives once more come into play.

Consider how in casual conversation the requirement of evidence for “I know that *p*” may be so small as to make the claim to know well-nigh gratuitous; whereas in criminal cases, for example, the requirement for evidence must be adduced. The difference here is largely one in the requirements of justification and as such is strictly related to questions of responsibility that may be near zero in casual conversation and “infinite” for an eyewitness in a murder case.

A final example:

If I carefully scrutinize some patch of colour in my visual field, take careful note of it, know English well, and pay scrupulous attention to just what I’m

saying, I may say "It seems to me now as if I were seeing something pink"; and nothing whatever could be produced as showing that I had made a mistake.
(Austin 1962: 114)

That Austin, after all his care and effort, his attention to exactly what he is saying, still uses the term *seems* suggests immediately something rather suspicious here, as does the use of *as if I were*. There is, in short, ample indication that something could well happen to make us assume he had made a mistake. Or so Austin's words suggest. If, on the other hand, the situation (as he judged it) warranted perfect certainty, then what he in fact uttered is grossly misleading. Surely it would have been more correct for him to avoid the hedging forms of expression and say, "I am seeing something pink."

I shall not try to introduce anything new into the difficult contemporary discussion on certainty and knowledge within the field of immediate perception. Austin has himself suggested many sources of error and therefore of possible retractions. The crux of the matter can be put in this way: A proof or strong argument in favor of *incorrigibility*, *unretractability*, and related *-bilities* must be more than an inductively based prediction. It should somehow derive from contemplation both of the nature of the incorrigible statement and of the subject covered by such a statement. This, however, is very hard to achieve. In fact, Austin himself points out how difficult it is to delimit certain *kinds* of statements as incorrigible by virtue of their subject matter (e.g., sense data) or other characteristics.

It seems, therefore, that incorrigibility claims are essentially based on convictions that in the particular case there could not be any source of error, both in the usual sense of "source of error *worth mentioning*" and in the sense of no source of error even of the more remote kinds that we neglect in daily life. This conviction is based on a trust that one's imagination works as it should at the time of making up one's mind about the corrigibility when one is "looking" for sources of error. So incorrigibility theses are testable by future events; they are vulnerable. Simply to add to one's statement "And what I have just said is incorrigible" does not close the matter.

Let us look at the discussion on incorrigibility dialectically. Strings of striking cognitive successes of incorrigibility claims may justifiably influence the standards for incorrigibility or unretractability claims, making them less rigorous. On the other hand, series of striking cognitive malfunctions may justifiably influence standards by making them appreciably rig-

orous. What is remarkable here is the “feedback mechanism”—the inherent norms, mores, and institutions affecting changes in certain directions.

Just how far can the changes of standard bring us? In fact, there seem to be no limits; they can be lowered or increased indefinitely in the sense that, having reached a certain height or depth, there will always be the possibility of an additional increase or decrease.

A criticism of contemporary debate on (epistemological) scepticism is that it does not seem to take into account the dynamics of standard fluctuations. But fluctuations affect the application of all so-called closure-expressions, such as “conclusive evidence,” “in corrigible statement,” “indubitable utterance,” and “definite establishment of truth.”

If the fluctuations are taken to result from the operation of some kind of factors—if, in terms of methodology, they are taken to be the dependent variable—what are the independent variables? One might be inclined to say that it is our experience that affects the standards and determines the fluctuations. This suggests a kind of empiricism à la John Stuart Mill in which whatever affects us, hence also our raising and lowering of standards, is something in our experience. However, such a way of putting it would be misleading because we are ourselves in some sense interposed between the happenings and the “resulting” fluctuations. There is a factor of making, supporting, and applying rules or mores that cannot be accounted for as long as we use a model of causation, of happenings *causing* fluctuations.

However, it is not our aim here to find out why or even how fluctuations operate. It suffices to notice that if the dynamics of fluctuations are not explicitly taken into account, one and the same statement may justifiably occasion opposite estimations as regards incorrigibility, unretractability, and unquestionableness. The situation in which the statement is supposed to occur is, in such cases, placed as a member of different series of situations. If it is taken as following on a long series of cognitive failures, a verdict of “corrigible” may be adequate, but if it is taken as following an opposite series, the adequate verdict could be “in corrigible.” As long as they are not explicitly related to the series, the verdicts are mutually inconsistent. But, of course, once that is done, they are compatible.

Recent discussions concerning examples of conclusive evidence and incorrigible statements support the simple prediction that the participants aiming at undermining the examples will always find (practical, particular) sources of error (if the examples are not circular), and that the participants

aiming at saving at least one example will be able to introduce modifications so as to eliminate those (particular, practical) sources. In fact, Sextus Empiricus's maxim "Not more than" seems eminently suited to the debate: the arguments for incorrigibility are not decisively stronger than the arguments against. A general conclusion unrelated to the dynamics of standard fluctuations, to the effect that there *are* cases of conclusive evidence, seems equally unconvincing as one to the effect that there are not.

Examples of Evidence Fusing with the Evidenced

"Why on earth should one think that such verification can't ever be conclusive?" It is Austin (1962: 118) asking the question, and his theme is statements in need of verification.¹⁰

If, for instance, you tell me there's a telephone in the next room, and (feeling mistrustful) I decide to verify this . . . I can take it to pieces a bit and find out, or actually use it for ringing somebody up—and perhaps get them to ring me up too, just to make sure. (Ibid.)

The object has then "stood up to imply enough tests to establish that it really is a telephone; and it isn't just that, for everyday or practical or ordinary purposes, enough is *as good as* a telephone; what meets all these tests just *is* a telephone, no doubt about it" (ibid., p. 119). Or, to extract the principle, something's membership in a class of things is for all *practical purposes* conclusively established if results are positive when the thing is subjected to a finite battery of tests.

But, alas, do we, when trying to verify concrete examples, test the identity of a thing as to what it is for everyday, practical, or ordinary purposes? If we sometimes have other (legitimate or illegitimate) purposes, and the thing then has to be classed differently, it may turn out that those other nonpractical or unordinary or uneveryday purposes are relevant.

Let us nevertheless leave that point and consider whether a case can be closed after a finite series of tests have been performed. In the case of the telephone, I have no concrete objection; positive results from the four tests would be, I am perfectly convinced, enough for me to exclaim, "Then this *is* a telephone!" because nothing but telephones, and only telephones, satisfy the four tests as far as I can see.

But what if the question of a telephone in the next room emerged during a police search? We are still only interested in situations in which maximum requirements are made. David Krueger, one of the greatest impostors of all time, and many lesser crooks have had telephones (“real” ones?) installed that buzz at convenient intervals during crucial conferences. The voices of very important people are heard over the phone, and some impressive business is cleared up; the voices, however, are from a gramophone or tape recorder. In the spying profession, innocent instruments such as telephones are completely rebuilt in order to make less innocent instruments. They still at least look like telephones. The instruments must perhaps satisfy all of Austin’s four telephone requirements or, more correctly, must be such that a suspicious person will normally come to that conclusion after a thorough search. In short, the four requirements (in part seemingly, in part really) being satisfied, the thing may still be a lot of things other than or besides a telephone.

But enough of this. The real point of the example is to show that the idea of a finite battery of tests for identification purposes brings in no radically new factors. Especially when the tests have to be performed one at a time, as is the case in the telephone story, it is always possible for new sources of error to develop with time. Thus, our ultimate view will be unaffected by this story, but we do not suggest that the discussion over (concrete) examples is likely to come to an end.

Incorrigibility and Fallibility

An essential characteristic of human fallibility is the unpredictableness of what kind of mistake will be next. If it were true that human fallibility had (a) infallibly ascertainable limits that (b) were infallibly identifiable in certain particular cases, there would be human fallibility in one sphere and human infallibility in another.¹¹ But the awkwardness of the human predicament is due precisely to the unpredictable failures. However long the series of successes and however well the field of these successes can be delimited, this trait of general human fallibility does not change.

Let us for a moment grant that such is our human situation and consider some of the consequences. Does this situation make it universally justifiable, and in fact true, to add that “I may be wrong”? If so, it will always

be justified and true when I have already said "I know that p ," to add "but I may be wrong." But this disqualifies my utterance "I know that p ," and the only thing to do will be to give up ever using "I know" and to answer, being prodded, "I do not *know* whether p is true or false" and "I do not know and cannot know anything."

Here, then, is a possibility of deriving modern scepticism from a doctrine of general fallibility. But there is weakness both in that doctrine and in the derivation of scepticism from it. If we ask "Is the doctrine of general fallibility intended to apply to itself?" a positive answer at least opens the door to allegations that human beings might, after all, be pretty infallible, which again makes the doctrine useless for deriving "but I may be wrong" as a general addition to "I know that p ." A negative answer, on the other hand, provides us with an instance of a statement that is incorrigible and true; in that case "I may be wrong" is false if this statement is inserted for p . The derivation, therefore, collapses, at least in its completely general form.

More important are the considerations adduced by Austin.¹² Human fallibility involves fallibility in keeping promises and in many other important social transactions. Why does this not prevent us, and why *should* it not prevent us, from promising? Austin stresses that there must be special reasons for suspecting a break of promise in order to make it rational to avoid promising (because of fallibility). Similarly with knowing: Only where there is something special that points to an important source of error should fallibility prevent me from using "I know." General fallibility may be generally admitted, but not fallibility in any definite concrete case. That is, general fallibility is not permitted to constitute a justification for comprehensively avoiding "I know":

A: Tell the judge you know that it was he who did it.

B: What a responsibility to take! And do I *really* know? I am but a fallible human being.

A: That holds for all of us. Go on, tell him, you coward.¹³

In all concrete cases in which there involves a social responsibility to say "I know," general fallibility cannot be invoked. The same holds for all cases in which the sentence "I do *not* know" is conceptualized¹⁴ within a framework such that it implies awareness of how to know that one does not

know, awareness of how to get adequate evidence, and of what kind of evidence is lacking. Here, too, general fallibility cannot count as an adequate argument in favor of the exclusion of knowledge.

Nevertheless, a dialogue starting in the midst of everyday concerns may reach stages at which general fallibility becomes relevant in the argument. This we will discuss later.

Corrigibility as a Requirement of Scientific Knowledge

Although a justified utterance of “I know that p ” is not incompatible with the general possibility of error, it is, as we noted, inconsistent with a concomitantly uttered “I may be wrong.” What then is the core of a reasonable and workable incorrigibility requirement of knowledge? It can be stated in very few words.¹⁵

One cannot say “I know it, but I may be wrong”; “I know that p , but there is a chance that p is false”; “I know that p , but some time ago I knew that not- p ”; and “I know that p , but next year maybe I’ll know that not- p .” That is, if I have said “I know that p ,” and later I am convinced of not- p , or feel uncertain about p ’s truth, I shall have to retract. I shall have to admit “I *do not* and *did not ever* know p .”

The nature of the requirement of incorrigibility can be further clarified by discussing its relation to statements made about scientific knowledge. This knowledge is said to be essentially corrigible, liable to revision, approximate, never absolutely certain, more or less uncertain, never more than probable, the best we have but imperfect, always containing errors, often partially or totally modified, and sometimes swept away during scientific revolutions. Often these things are also predicated of “human knowledge” in general. But what then of our incorrigibility requirement?

Let us first notice that these characterizations nearly always refer to scientific knowledge *in general* or large bodies of doctrines, theories, hypotheses, and so on, taken together. Very rarely do they refer to single statements, or to single definite occurrences of “I know” uttered by a scientist.

If we glance at histories of science, or at historical accounts of theories, such as atomic views about matter, we find ample reference to the knowledge of the times—including doctrines that have subsequently been revised or completely abandoned. But we discover no (or practically no) kinds

of statements inconsistent with the “prohibited” locutions listed at the head of this section or, rather, with their equivalent third-person locutions. For instance, we do not find “Descartes knew that p , but already Newton knew that not- p ”; “He knew p , whereas we now know not- p ”; and so on.

We do find, on the other hand, that certain knowledge was corrected or improved on, but still “in the abstract”—the term *knowledge* being used, not the verb, and with no recourse to particular statements. There is thus no direct contradiction between the corrigibility view of knowledge especially common in reference to science, and the incorrigibility requirement for “I know that p .” Perhaps, in view of the tendency to use the noun *knowledge* in the former case and the verb *know* in the latter, it might be wise to talk about the “incorrigibility requirement of *knowing*,” and the “corrigible and fallible nature of scientific *knowledge*.”

Only persons can know. Yet concepts of knowledge can be, and have been, construed in such a way that knowledge is impersonal. Knowledge can be stored away in libraries, whereas knowing cannot. If knowledge can be transferred to books and put on tape, the existence of knowing readers and listeners can, of course, no longer be guaranteed by the existence of knowledge.

Thus, the distinction between knowing and knowledge can be of *some* help in avoiding certain pitfalls when contemplating fallibility and incorrigibility. The distinction is, however, not clear enough or simple enough in actual use to be of decisive value. If I say “I know that p ,” it is perfectly proper and legitimate to take this to imply that I have a piece of knowledge, namely that p . But this piece of knowledge must be true, that is, partake of the incorrigibility of truth. Again, if I tend to use “I know” repeatedly during conferences or lectures or refer to large groups of statements saying “All this I know,” there will be whole bodies of claimed knowledge for which the incorrigibility requirement is normally claimed to be satisfied. Thus knowledge claims may sometimes imply an incorrigibility claim even when they refer to a whole body of doctrines or statements. Appeal to usage, then, has only limited value.

Perhaps some of the uneasiness we sometimes experience when advocating the incorrigibility requirement for “I know” stems from a faint association with a preposterous infallibility claim for scientific (or other) knowledge: the claim that the body of science, an encyclopedia of scientific knowledge, is such that no error can or will be found and corrected.

Can the Incorrīgibility Requirement Ever Be Satisfied?

Accepting the idea that knowing involves an incorrīgibility requirement—which can be partly expressed by saying “I know, but I may be wrong” is an improper expression—the question then arises, If I require incorrīgibility for the proper use of “I know” and yet refuse to apply as standards of incorrīgibility standards of evidence that socially and normally justify my saying “I know,” what do I take incorrīgibility to consist of? How does one conceive an incorrīgible statement as distinct from statements, say, with few and remote sources of error?

So far as I can judge, there are no criteria by which we can make the distinction, at least none that would guarantee correct results.¹⁶ Remember that standards allowing any sources of error whatsoever would have to be rejected. But, then, if incorrīgibility is (practically) inconceivable in every concrete case, we have to ask ourselves whether the requirement is *unwarranted*. Since it is impossible to satisfy, surely this requirement functions no differently from any other requirement that makes “I know” useless, that is, that prevents any correct use or occurrences of “I know” whatsoever. Could we not, for example, just as well require that *p*, in “I know that *p*,” be green, square, and smell of jasmine? The effect would be the same—or perhaps better insofar as we would not lead innocent people, with little ability to see sources of error, into misusing the phrase “I know.”

The relevance and strength of these reflections can be assessed more clearly if we first ask, in a preliminary way, where we are in the dialogue, what stage we have reached. It seems that we are not here considering something that implies criticism of uses of “I know” satisfying normal, social standards. We have already concluded that all such standards sometimes break down, or at least are liable to break down. We have in fact branched off from the usual discussions in concrete cases in which mistakes are supposed to be detected and standards modified, and have entered into a study and discussion of the implications of the view that the expression “I know, but I may be wrong” is improper. In fact, we are now taking a broad view that comprehends both the experience of past mistakes and the implications of the impropriety of the expression “I know, but I may be wrong.”

The transition to this viewpoint is effected in the light of the history of supposed mistakes. This is, of course, an undertaking and a purpose *dif-*

ferent from the usual, normal, or everyday. What we are interested in may be stated in various ways, one of them thus: errors, for instance, in geometry and in the historical development of the calculus of probability, have cropped up in a completely unpredicted way; judgments proclaiming that an error has been found have in some cases been retracted; in other cases such judgments continue to be upheld. For example, in this century, a large-scale reversal of judgments has affected Stoic logic. Because it was interpreted by Karl von Prantl and others in the light of Aristotle, we now say that Stoic logic was misjudged. Consider, too, the case of Aristotelian physics. Here there has been a shift (broadly speaking) from acceptance of it as true to a vehement rejection of it as false, and then a shift toward a kind of relativism, according to which if certain modern postulates and definitions are accepted, then there are many plain falsehoods, but if Aristotle's own are used, there are less.¹⁷ More often than oscillation from true to false and from false to true, painstaking studies reveal incomparabilities. Sentence T_0 is given various interpretations T_1, T_2, \dots . One generation accepts T_0 in the sense of T_1 ; another rejects T_0 in the sense of T_2 . How the first generation would react to T_2 and the second to T_1 is not known. The sources of incomparability are as unpredictable as those of error and affect the use of "I know that p " just as heavily.

It is my impression that in the course of intense studies of reversals of judgments interculturally and down the centuries, the application of the known/not-known distinction becomes unwise. That is, the use of this distinction in daily life does not itself furnish acceptable grounds for saying in such contexts "I know" in some cases and "I do not know" in others. Besides that, the usual incentives for saying such things disappear. Let us see how this might be.

Starting with everyday-life situations, one may in a perfectly natural way be led to discuss reversals of judgment in general, and from that to reversals of judgment in systematic research. What, at this stage, would be the reasons for applying the phrases "I know" and "I do not know"?

One could begin to apply some normal standards for "I know" and "I do not know" that appear in historical narrative or elsewhere. Any specialist on human failures must himself claim to satisfy such loose standards. But what if someone questions him as a fellow student at the same stage of the debate?

Well, first of all, we note that “I know” has a performative function conjoined with the cognitive, and this function is, as we have seen, inessential, irrelevant, or even disturbing in research communication. One researcher does not *vouch* for a (research) statement that the other then makes use of on the basis of trust. In fact, the situation could easily become ridiculous if the fellow student insisted on using “I know” or “I do not know.” In short, there is less incentive here for using “I know that *p*” at the stage of discussion we are now considering.

Second, even if there were an incentive, how could the conceptual framework erected during the debate be pressed to yield a basis for the use of “I know”? Such a basis is destroyed by concentration on the truth requirement, by the resulting explication of the incorrigibility requirement, and by the detection of sources of error.

Perhaps it will be objected that this latter is a “mere” psychological account of inapplicability. But whatever the suggested demerits of this, the facts still provide the basis of a rational reconstruction. It is possible to construct rules for reasonable limits of the distinction’s application under variation of definiteness of intention, or to develop framework rules, the changes of framework being in turn correlated to stages of a dialogue.

We have raised the question “Can the incorrigibility requirement ever be satisfied?,” and the answer proposed is no, but with an essential qualification. The question belongs to the stage of a dialogue at which the standard requirements for justifiably denying “I may be wrong” are out of place, that is, the stage at which the rules regulating the propriety of the opposition of “I know” and “it cannot be wrong” are no longer applicable. In their place there is an unsatisfiable requirement that there should be no sources of error. This requirement is not unsatisfiable because it is unintelligible or nonsensical or because it can be derived from some kind of logical or other necessity. The basis for stating “It cannot be satisfied,” in my own case at least, is a study of proposed examples of incorrigible statements. How this basis is to be classified methodologically, I must leave for others to decide.

There is another qualification. There are good reasons—though not, I think, decisive ones—for demanding a description of particular sources of error in criticizing a proposed incorrigible statement. In this view, the claim for a statement’s incorrigibility holds so long as no particular source of error is given. However, in many cases and especially in relation to negative

examples ("I am *not* using the tail of a scorpion as a pen in writing this sentence," and the like) the sources will be ridiculously inadequate as *particular* sources of error. Perseverance in claiming corrigibility will then probably be found in some abstract considerations about sources of error; for instance, the chasm between evidence and the evidenced or the general fallibility in human thinking. I say probably, because here it is a difficult question of motivation. So, if it is agreed that *particular, special* sources of error are to be enumerated for corrigibility to be substantiated, my conclusion would have to be that there *are* incorrigible statements but that they are of very special kinds, occurring neither in everyday life nor in science, but constructed for the very purpose of establishing the thesis that there are incorrigible statements.

It will be pointed out, however, that if incorrigibility cannot be realized, a requirement of incorrigibility will amount to a demand for the impossible. But can we rationally demand something impossible? It seems not. Then if it is irrational to demand the impossible, to require incorrigibility is a case of irrationality. It might therefore be concluded that scepticism is irrational because conclusions such as "We cannot know anything" will have at least one premise that is irrational; and because we are aiming at being rational, the conclusions will have to be rejected.

What are we to make of this argument? Well, it seems clear that it would be of value only to an opponent who does *not* require incorrigibility, who is satisfied with what he *can* attain. For one could scarcely accuse the sceptic of irrationality unless one could show that there was a rational alternative in which incorrigibility was not required. Otherwise one would surely have to concede the sceptic his argument rather than criticize it.

However, it is not entirely accurate to say that the sceptic himself is demanding the impossible. All he states is that those who insist on using "I know that *p*," and who also require incorrigibility as a requirement of the known, demand the impossible. At the same time he would contend that a clear-cut explicit renunciation of incorrigibility leads to contradictions or to intolerable divergences from the established usage of "I know that *p*," an argument that we have tried to substantiate in the previous chapter.

Arthur Pap (1949) summarizes his own and George E. Moore's antisceptical position in a few words. The *real existence* of the external world is established roughly as follows: I hold up my right hand; I see it, you see it, hence my right hand really exists; hence the external world really exists. But the

Pyrrhonist would quite happily participate in a discussion, say, about whether this or that war veteran has a right hand or not. He is not a particularly diffident or mistrustful sort of person and might even believe and trust the testimony of others without seeing the man in question. But the words *real existence* is commonly associated with technical philosophic terminologies. It is here that the Pyrrhonist's suspension of judgment enters the picture. Given professional definitions of *real existence*, *hand*, *my*, *see*, *hence*, *world*, and so on, the Pyrrhonist is one who is likely to find himself unable to find one professional opinion more convincing than another. Pap adds:

The question which the skeptic ought to be able to answer is: *what would it be like* to know for certain that the objects we perceive really exist, in other words, what do you, skeptic, *mean* by the phrase "I know for certain that *x* really exists?" That you cannot be using the phrase the way common sense uses it is evident from the fact that your disagreement with common sense is not a *factual* one, i.e. one that could in principle be settled by making further observations. No matter how many corroborating tests we may adduce as proof for the real existence of our hands, the skeptic still is not convinced. (Pap 1949: 147–48)

In his answer, the sceptic would stress that he listens to dogmatists in order to understand the statement "I know for certain that *x* really exists." Surveying the various conceptualizations offered, however, there has not as yet been any *x* such that he, the sceptic, finds it certain and true that *x* really exists. But this does not preclude the sceptic from exhibiting trust and confidence in his or anyone else's having two hands, and it will be up to the dogmatist to prove that trust and confidence imply adherence to a conceptualization concerning the real existence of an external world.

Pap attempts, he says, "to show that the proposition, doubted by the Cartesian skeptic, 'there exists an external world[.]' can be known with certainty by observing the way words are commonly used." His argument runs as follows:

Hence only one conclusion can be drawn: the skeptic must use the phrase "Knowing for certain that *x* really exists" in some very special sense, and as long as he does not explain what that sense is, we may as well assume that the statement "we can never know for certain that any physical objects really exist and are not mere dream images" is either false or else meaningless. (Ibid., p. 148)

If a man remains unconvinced after inspecting a long list of arguments in favor of the real existence of an external world *in the sense (or senses) of*

Cartesian dualism, to my mind he deserves to be congratulated. But to conclude that the sceptic must use the phrase “knowing for certain that x really exists” in some very special sense is wholly gratuitous. Indeed, in elaborating Cartesian concepts of real existence and the external world, one obtains very special senses, high-degree precizations of everyday terms, many of them transintentional in relation even to most professional epistemologists. The sceptic’s position in respect of these is that he is faced with alternative directions of precization and he sees no convincing argument why he should choose any one of them. As for the appeal to ordinary usage, that is beside the point; here the sceptic is entitled to insist on the unwarrantedness of applying any clear-cut conceptualized distinction between knowing and not-knowing.

It seems that Pap disregards the long and difficult path from believing somebody has a right hand, and has not lost it, to asserting propositions, positive or negative, concerning the real existence of something. Otherwise he would not be so optimistic as to try to show, by noting the way in which words are commonly used, that the Cartesian dogmatist (as an opponent of the Cartesian sceptic) is correct.

In short, it seems that the sceptic’s position is in no way affected by the unsatisfiability of the incorrigibility requirement. On the other hand, it must be remembered that when we talk in terms of incorrigibility, we are applying the known/not-known distinction at a stage in the dialogue at which the conclusion that incorrigibility is impossible no longer implies criticism of uses of “I know” satisfying normal, social standards. As far as these latter issues are concerned, this whole question of whether incorrigibility is possible or not does not arise. The relation here between ordinary uses of the distinction and uses in the extended stages of the dialogue can be aptly described in terms of Charlie Dunbar Broad’s (1925: 5) definition of a “silly theory”: “By a ‘silly’ theory I mean one which may be held at the time when one is talking or writing professionally, but which only an inmate of a lunatic asylum would think of carrying into daily life.” The incorrigibility formulations and formulations like “I do not know anything,” which can be accepted as expressing tenable conclusions provided certain qualifications are also accepted, have by these very qualifications an intended field of validity that explicitly *excludes* daily life. They cannot be carried over for the simple reason that if they were, they would not be the same conclusions.

The Incorrigibility of Truth

We must include here a few words on the role of the notion of truth in creating disturbing problems about knowing. The requirement that in order for me to know that p , p must be true, creates complications because the sense of “true” here is a very demanding one. In order that I should know that p , p must be the case. The notion of a true statement implied here is well defined by Aristotle (especially if *esti* is translated as “is the case”): true statements are statements that say about that which is the case that it is the case; false are those that say about that which is not the case that it is the case.

If it is the case that p , it cannot also be the case that not- p . The exclusiveness, the narrow path of truth, is also well taken care of when, following Aristotle, we link the notion of truth to his (so-called) principle of contradiction.

In ordinary, undisturbed discourse and thinking, there is a seemingly stable insight into what is the case. Even in posing questions and doubting (about something definite), there are always some stable insights implied, some indubitable and direct access to what is the case. By requiring “ p must be the case,” “what is the case” (*der Sachverhalt*) becomes unrelated to our standards of evidence, our purposes of discussion, our standards of incorrigibility. Yet the notion of “what is the case” is one that is very much alive.

Attempts to avoid the notion, exchanging it for the more, as it were, epistemically self-conscious notions of “what is verified” or “statement with maximum probability,” and so on, easily break down. These epistemically self-conscious concepts of knowing break down in a way similar to concepts of knowing that try to do without a separate truth requirement: we generate the possibility of both p and not- p being true, or of p remaining true at one date and at a later date not- p being found to be true, and remaining true.¹⁸

Critical Inspection of Arguments in Favor of Incorrigibility as Unattainable

At this point there is a further possible objection to face. In asserting that incorrigibility requirements arise in view of experience of past mistakes, we assume we are justified in stating that mistakes have occurred. But what justification for this is there? What justifies us in stating that the evidence

for a mistake was of a high standard? And in making these statements, what kind of announcement do we make? If we claim to know all these things on which our critique of incorrigibility rests, surely there is an inconsistency somewhere? But if that is the case, are there not serious repercussions on the argumentation in the previous sections?

Let us first see what happens if the view that incorrigibility cannot be reached is expressed in the terminology of “knowing.” Suppose the view goes as follows: “‘I know that p ’ is true only if it cannot be false that p , but I know that p may be false, that p is corrigible, that there is a source of error.” But the truth requirement can be applied to the latter statement too. Hence we get, “It cannot be false that I know that p may be false” and “It cannot be false that I know that p is corrigible, that there is a source of error.” Now it would hardly be reasonable of the proponent of this view to accept these second-order statements as incorrigible; to do so would be to falsify the view. Besides, there seems no reason to suppose that he alone should be immune to sources of error. At the stage of the dialogue at which the first-order statements were rejected, he will also reject those of the second order. That is, he will not consider their knowledge claim warranted—or better, he will abstain also in these cases from considering whether the known/not-known distinction is applicable.

What now are the repercussions on his argument concerning the first-order statements? Does the argument collapse leaving the field to the advocates of cases of incorrigibility?

It does not collapse. The knowledge claim could be retracted (as an inadvertence), and a new mode of announcement could be adopted, any other mode of cognitive *relevance*. The mode of announcement need not be explicitly expressed. One may inform people, in a preface, that in what follows, certain convictions, beliefs, or hypotheses are not put forward as assertions. Beliefs are good enough, and in forwarding a belief there is no implied incorrigibility claim. “I believe that p , but I may be wrong” is perfectly consistent. The same holds for “I am convinced that p , but p may be wrong.” It is, as was already pointed out, not necessary to prefix every contribution to the case against the attainability of incorrigible statements with an “I believe that . . .” or some other announcement different from “I know that.” It might be misconstrued. The point, of course, is not to inform people that I have this or that *belief*. Therefore a preface is better.

In short, the disbeliever in incorrigible statements is not handicapped in an argument because of his disbelief. He can have no wish to pretend, nor get any benefit cognitively by pretending, that his arguments are incorrigible, and he can without loss leave the “knowing” terminology and the conceptual framework alone.

There is another objection to be faced by those who dispute examples of incorrigible statements, namely that in citing sources of error, they are speciously removing themselves from the real situation and putting themselves, or the example, into an imaginary one. For instance, in countering Austin’s telephone example, we are simply inventing sources of error; as regards to the pig, it is simply known that Austin did not have amateur magicians as acquaintances. All we are entitled to say is something like: Very well, I concede that the world happens to be such that these statements are incorrigible. But there are many nonexistent yet conceivable worlds, some of them highly exciting. In one of them the “telephone” was not a telephone and the “pig” suddenly exploded like a balloon, leaving a new smell, that of helium. If it was a pig, it was certainly a very peculiar one.

The argument that sceptics must take the world as it is can be given the following form: Given human standards of credulity and the frequency and manner of our being deceived, it does not affect the issue of scepticism that other beings might have been more easily discouraged and so become sceptical. That they might be sceptical is of no more interest than say, for physical theory, the observation that if the earth had or developed a much greater mass than it in fact has, we should not be able to walk.

This kind of attack is serious, but not altogether convincing. When the disbeliever of incorrigible statements points to a source of rather astonishing mistakes, the erratic behavior of practical jokers or amateur magicians, it is his conviction that it is just *our* world that contains the source—and James Jeans and others *may* be right in their suspicion that there are few similar worlds in all the Milky Way. The more details that a believer in an example of an incorrigible statement hands out, the more concrete the disbeliever is able to make his indications of sources of error. They may be very far-fetched, and the believer will, I presume, always be able to modify his example so as to take care of a suggested source of error $n + 1$. But the sceptic is likely to conceive of a source $n + 2$. No conclusion of the debate is foreseeable, and the field remains divided between the contesting parties.

It can also be pointed out that any insistence that the world must be taken “as it is” itself implies a partial scepticism. The rejection of both Academic and total Pyrrhonian scepticism in British philosophy is a case in point. Its scepticism consists in its disbelief or doubt in styles of life, ways of experience, and views of the self and the universe, *Weltanschauungen*, that distinctly color even everyday life. Our daily life is supposed to be something we all have in common, and in it words get their distinct meanings. It is therefore supposed to furnish a common inescapable, nontranscendable frame of reference. This in spite of poets’, prophets’, and philosophers’ testimony to the contrary. Indeed, this testimony is taken not only to be highly suspicious but also misleading: whatever has been said to the contrary, all men live in exactly the same world, the world of common sense.¹⁹

In German philosophy, in Kantian and phenomenological trends, Pyrrhonian and Academic scepticism is also rejected, but the counterarguments are characteristically different from those of Austin and Ayer and others. Instead of an appeal to institutions of everyday life, there is an appeal to absolutely basic insights and principles that make doubt impossible *überhaupt* (in general). The principle of identity, of contradiction, the axioms of mathematics, and similar highly uneveryday themes are embarked on.

Edmund Husserl’s famous refutation of scepticism (in his terminology) is worth considering even if it is directed against negative dogmatism (Academic scepticism in Sextus’s terminology) rather than against the Pyrrhonist.²⁰ A theory as a piece of knowledge is, according to Husserl (1913), a kind of proposition that claims truth, is certain of its truth, and is justified in claiming truth. (One is reminded of the sets of three requirements for asserting “I know that *p*.”) Theories such as “There is no truth,” or “There is no knowledge” deny something they must accept in order to claim what they do. They are inconsistent, and the inconsistency can be proven.

From the point of view of the Pyrrhonist, both the negative dogmatism of “There is no knowledge” and the refutation by Husserl are open to the charge of rashness. Arguments about the necessary conditions for the possibility of a theory *überhaupt* are typical of philosophical arguments within formidable conceptual systematizations. The modern Pyrrhonist would, I think, point to the nonevident conditions for the possibility of constructing theories about necessary conditions. The development of theoretical phenomenology has exposed the intricate maze of questions surrounding

concepts of evidence functioning to establish what Husserl calls “the evident conditions of the possibility of a theory *überhaupt*.”

To those who believe in a universal everyday life or in certain basic insights, the testimony of Sextus Empiricus and others about mature sceptics with their complete suspension of judgment has to be rejected. The testimony must be *false*; the sceptic is suffering from self-deception.

Our Penultimate Conclusion on Modern Scepticism

We have examined arguments against the reasonableness of saying “I know nothing” and against the assertion that there are no incorrigible statements. It appears, however, that there are circumstances making it reasonable to use expressions like “I know nothing” and “No statement is incorrigible.” The realization that even in mathematics and logic, as well as in sense experience, statements are sometimes withdrawn and their negations asserted, sometimes even both assertion and negation withdrawn and the issue left undecided, gives the expressions a legitimate function in conveying an appreciation of the history of human error and of the reversal of truth claims. But such expressions do not function cognitively, that is, they do not serve to express conclusions for which a general validity is claimed. In fact, both for these expressions and the more radical ones of the Pyrrhonist, it is hard to find any satisfactory role in epistemology or in philosophical systems in general, if only because they are apt to be self-defeating when expressed in the precise way proper to their use in philosophical discussions.

Our conclusions are therefore extremely qualified compared with those that would have been expected to emerge if our discussion had been firmly anchored in a set of precise definitions. They can be expressed as follows: (1) “I know nothing” can be a reasonable assertion in certain circumstances, but it has to be understood in the context of the circumstances that make it reasonable. (2) There are no incorrigible statements, although it is only pertinent to attach significance to this in certain situations.

What needs to be stressed is the very special character of an endorsement of “I know nothing” or of the inapplicability of the distinction between known and not-known. The important point is this: The endorsement does not have consequences for the socially established standards of evidence, but reflects the socially accepted, indefinite fluctuability of standards. It re-

lates to special categories of dialogues in which there is created a conceptual framework of a special kind. In relation to such dialogues, and only in relation to them, the endorsement of the extremist formulation is tenable.

However, the so-called sceptical position in current discussion is mostly interpreted precisely as having consequences for the usual, that is, average standards. The so-called sceptic is a critic of those standards and denies the justifiability of *any* knowledge claim. Thus Arner (1959: 87), who has the sceptic conclude “that we never properly claim knowledge.” The distinction between verification and justification (stressed by Anfinn Stigen [1961, e.g., p. 266]) can be of some help here. I justify a claim for definite purposes, facing definite persons in definite situations. In doing so I may sometimes be rash, sometimes overcautious, the weight of evidence being the same in all cases. The mores covering the transactions take cognizance of series of failures, but they also take cognizance of successes.

It would be irresponsible to spread the rumor indiscriminately, that is, to any listener in any situation, that no statements are incorrigible, that strictly speaking we know nothing, or know no empirical statement to be true.²¹ Or, on the basis of considerations in the foregoing, that standards of evidence need a general uplifting, or, that one ought to stop talking in terms of knowing or knowledge because the hazards are too great. These are highly startling and “significant” pronouncements that are certainly misleading and without foundation in the foregoing conclusions.

There remain, however, results of interest to any serious student not only of the social psychology, sociology, and other branches of the nonformal (future?) sciences of knowledge, but also to anyone interested in contemplating human efforts to reach new knowledge and to improve the quality of the knowledge they have. Some such results and hypotheses may—at the risk of repeating what has already been said—be stated as follows:

1. There is within a community no definite stable *general* standard of evidence that must be fulfilled in order to justifiably say “I know that *p*,” where *p* is any statement that can be grammatically inserted.
2. There is not even a definite stable *particular* standard for any particular *p*, although there are approximations to stability. There are, therefore, no “usual” standards that most people most of the time find satisfactory in their normal working, in contrast to “special”

standards for special purposes. The fluctuations of standards are not exceptional happenings, but part of their normal working.

3. Two of the many factors influencing the level of standards for knowing are:
 - a. The stage and direction of the dialogue in which a particular statement occurs.
 - b. The responsibilities and risks incurred if it should happen (should later be agreed on) that p is false.

On the whole, as evidence is more closely inspected, as more failures of high relevance to p are reported in early stages of the dialogue, or as participants in the dialogue about p grow more divided in their opinions about p , the standards for knowing will also increase.

Further, the graver the risks and responsibilities, the higher the standards necessary to avoid being subjected to social retaliations in the case of failure. Sets of rules or theoretical models can be constructed more or less fitting the occasional explicit rules already verbalized in the community and the actual behavior of the individuals considered competent.

4. However the rules may be formed in detail, there should be one from which a prohibition of the expression “I know, but I may be wrong” can be derived. That is, it is clearly the part of the function of “I know that p ” to vouch for or guarantee that p is true and not false. Therefore clear indication of a source of error may exclude the use of “I know that p .”
5. If the competent user of language and well-adjusted individual perceives a source of error at the moment of using, or at the moment of forming words in which he might possibly include an “I know,” he will not withhold “I know” unless this source is of an important or probable kind—that is, only if it seems more or less likely that p will actually turn out to be false. Otherwise it is not worth mentioning. The situation for the users of “I know” is different from that of the neutral (or more or less neutral) bystander who (1) studies the community and (2) studies sources of error *independently* of the particular situation or interaction in which the utterer of “I know” happens to be placed.

The bystander will normally find many sources of error that do not occur to the user of “I know.” Some of these will be such that the

user, on being made aware of them, will ignore them, taking them to be of a completely negligible order of magnitude, or of a kind that all users are aware of but implicitly agree not to consider. ("There may be a war," "The sun may not rise tomorrow," "Our historical textbook may be completely wrong," and so on.) Some will be embarrassing to the user of "I know," not because the standards of the community are such that it should have occurred to him as a source of error, and should have made him abstain from using "I know," but because he will normally take any source occurring to him as ipso facto a sufficient reason to refrain from using "I know." The bystander disturbs the delicate adjustment.

6. Nearly all cases in which an "I know that p " is well placed are such that one might very well have *not* known that p . This means that platitudes are generally not introduced by "I know that," but that, on the contrary, very many statements that to the bystander involve clear sources of error *are* thus introduced. It is therefore out of the question for him to take the actual use of "I know" as conforming or even intending to conform to a rule of incorrigibility as understood and operated by a neutral bystander.
7. If he makes the sources and frequencies of error a subject of special study, the epistemologist *continues* dialogues (of a kind rarely observed in the community) with such a tenacity and stress on explicit conceptual frameworks that he must be considered a more or less neutral bystander rather than a member of the community in these matters.

At such stages of the dialogue on a given p , or on knowing in general, it is reasonable to hold that *no statement is incorrigible*, and that the known/not-known distinction decreases toward zero in applicability with increasing stress on defining knowing within a precise conceptual framework.

8. Among fellow epistemologists, the results of the studies may well be expressed by "I do not know anything" or "Knowledge cannot be reached," but only as part of a report containing many reservations and qualifications and stating some assumptions or postulates governing the study. Announced to the epistemologically innocent user of "I know," and particularly in situations in which he is just making use of that phrase, the epistemological formulations are grossly

misleading, inevitably being interpreted in ways that are not intended.

Thus, it seems to me that the study of “I know” is not a profitless or pointless study, and that interest in it is not reduced because the results are of no or little application to the so-called everyday life of the users of “I know.” After all, the everyday life is not the life we live *every* day, and the limitation to the ordinary is itself extraordinary.

My conclusion on modern scepticism can be put as follows: If by scepticism or “epistemological scepticism” is meant a doctrine expressible by “There can be nothing known,” “No statement can be known to be true,” or “No empirical statement can be true” without essential and severe qualifications and reservations, then scepticism is untenable. If, however, the reservations and qualifications suggested in the foregoing are made, then such scepticism is tenable. But its most adequate formulation, as I have tried to show, is in terms of the inapplicability of the known/not-known distinction in relation to any suitable explicit conceptual framework.

Our Ultimate Conclusion on Modern Scepticism

The arguments I have offered both in this and the previous chapters are designed to give support to the Pyrrhonian sceptic. The discussion as a whole is an attempt, on the part of a sympathetic metasceptic, to defend the Pyrrhonist against various undeserved objections. Some of these objections can clearly be met. In the case of others, it may be less obvious that a satisfactory answer has been provided. In some cases, perhaps even in most, it would be wrong to say the counterarguments against those who dispute the possibility, or plausibility, or sincerity, of scepticism were decisive. But, of course, the radical sceptic, too, would fail to find them decisive. Perhaps our own conclusions here should be genuinely sceptical. After all, the conclusion that there are no incorrigible statements might seem to be based on such doubtful case studies as to cast doubt on its tenability. It might be appropriate to wonder whether the requirements of evidence are so low that it might also not be possible to deny a thesis on the nonexistence of incorrigible statements.

Yet another counterargument might detract from the acceptability of our conclusions. If our study of candidates for incorrigibility is based on our

own experience of the correction of mistakes, we should note that every case of correction of a mistake is based on certain assumptions. If for p we insert " q is a mistake" in our formulas, we get statements such as "I know that q is a mistake," and the incorrigibility requirement that at one stage in the dialogue was found to be unsatisfiable is once more applicable. We should not say "I know that q is a mistake, but q may be true." If the incorrigibility requirement forces us to admit that no claim that a mistake has been known to occur can be accepted, it must be admitted that there is no *known* case of somebody having been mistaken in saying "I know that p ." More correctly, "I know that N. N. was mistaken when saying 'I know that p '" is always to be rejected as a claim to know; the incorrigibility claim involved cannot be satisfied. The same also holds for "I know I may be mistaken," "I know the incorrigibility requirement cannot be satisfied," and, of course, "I know knowledge can never be reached."

I must confess that there are arguments against my conclusions, and that my own arguments are not such as to compel acceptance, either in the reader or in their author, and certainly not in the mature sceptic. On the other hand, to be content with conclusions based on arguments so *obviously* incapable of winning the sceptic's acceptance would hardly be a convincing demonstration of the metasceptic's sympathy for his subject matter.

Which World Is the Real One?

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Which World Is the Real One?

Inquiry into Comprehensive Systems,
Cultures, and Philosophies

Translated from the Norwegian by Ingemund Gullvåg

Revised and Edited by Harold Glasser
in Cooperation with the Author
and with Assistance from Alan Drengson

VOLUME III

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in Norwegian as *Hvilken Verden er den Virkelige?* by
Universitetsforlaget, Oslo, 1962, 1969 (hardcover edition), and 1982 (revised edition).

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>Series Editor's Introduction</i>	<i>ix</i>
<i>Author's Introduction to the Series</i>	<i>lv</i>
<i>Author's Preface to This Edition</i>	<i>lxi</i>
Introduction	i
I. Descriptions of Maximally Comprehensive Perspectives	11
Context and Overview: Some Questions	11
Formulation of Systems	20
System Concepts	20
Jaspers's Typology of World Pictures	25
The Goal Is to Exhibit the Difficulty and the Possibilities of Constructing Systems	36
The Function of Philosophical Debate	37
Rules for Extremely Simplified System Presentations	40
Simplification Can Generate Misunderstandings: Stepwise Construction of More Adequate Representations	41
Synoptic Philosophical Systems	44
Statement Sets That Satisfy Minimal Requirements for a System	44
Full Explicitness Is Required of Synoptic Systems	47
Three Examples of Synoptic Total Systems	49
Simple Comparisons: Conflicting Systems and Criteria of Totality	52
Standpoint Combinations: Extrapolation	57
Introduction to Systems and System Comparison	61
II. Comparison of Different Total Views	71
Common Sense, Ordinary Language, and <i>Lebenswelt</i>	71
Comparison and Evaluation on the Basis of Adequate Presentation	74

CONTENTS

Comparison with Respect to Truth-Value	79
Limits of Precision and Depth in Comparison	80
III. Metaphysics as Exposure of Presuppositions	83
Collingwood's Concept of Presuppositions	83
Not All Sets of Presuppositions Are Equally Acceptable	85
Two Concepts of Presuppositions: One in Cognitive Daylight and One in the Twilight Area	86
Principles Within a System and Presuppositions of a System	88
Collingwood's Metaphysics Presupposes a Supersystem	90
IV. Can There Be, Ultimately, Only One Valid Total System?	93
Are Total Systems Identical After All?	93
"The Common World": Postulate or Reality?	98
V. Cultures Construed as All-Embracing Systems	105
"Philosophical Systems" as Designations for an Articulated View of Reality as a Whole	105
Cultures as Information Economies	106
Cultures as Total Forms of Life and World Images	108
Structure, Experienced Content, and Correct Conduct	110
"Culture," 'Culture', and Culture	113
Integration Level and Consistency	116
Message and Knowledge	118
Cultural Knowledge in Relation to Status	121
Description of Foreign Cultures and Untranslatability	122
The Depth of Cultural Differences	125
The Absolutization of One's Own World Picture	134
What Kinds of Cultures Can Develop a Cultural Anthropology and How Different Can These Anthropologies Be?	141
VI. Some Conclusions	143
<i>Notes</i>	151
<i>References</i>	155
<i>Index</i>	161

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of

what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philosophical palette, not the “world” of his own consciousness as has become

the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our experience of the world is made up of gestalts. "[This] is the world we experience. Nothing is more real."⁴ People create abstract structures to reflect

SERIES EDITOR'S INTRODUCTION

on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess's parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess's "ontological realism" as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of "reality is one" plays a central role in the mature Naess's approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality's concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. "As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence."⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess's perspective, such accounts by themselves are merely a sign of cultural poverty. "God" could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess's gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as "the social construction of nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular

to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility

SERIES EDITOR'S INTRODUCTION

as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothernia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his

rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative systems can be seen as very "useful fictions," which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others

SERIES EDITOR'S INTRODUCTION

as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess's hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess's view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems' requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a

troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. "We have all read it. We *still* cheat in argumentation, but now with feelings of guilt."¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as "truth," "democracy," and "private enterprise." . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy

SERIES EDITOR'S INTRODUCTION

and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of

print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a "great idea" without Doug's generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of envi-

SERIES EDITOR'S INTRODUCTION

ronment should not, in Naess's view, play a pivotal role in shaping a budding philosopher's development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess's philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess's principal writings. As such, the *Selected Works* is the definitive repository of Naess's oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess's philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded,
and should follow his questions wherever they lead.

Arne Naess, "Norway"

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep

rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small moun-

SERIES EDITOR'S INTRODUCTION

tain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potently influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way" — *sva mārṅa*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek

broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The

turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that

change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess's 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers' intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as “*Truth as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's “Common Sense and Truth” (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Us-

SERIES EDITOR'S INTRODUCTION

tao set. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created “institutes” of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein’s main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo’s Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi’s catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi’s idea of trying to meet one’s opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war,

Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO's requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy's* richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess's “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess's empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess's frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

SERIES EDITOR'S INTRODUCTION

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO's plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess's research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on

scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is

SERIES EDITOR'S INTRODUCTION

Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation*

and Preciseness, to argue that it is an illusion to assert that combined scientific and philosophical or “purely” philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V),

SERIES EDITOR'S INTRODUCTION

was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhi's Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), "Seek complete self-realization" and "Seek truth," and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of "Self-realization!" as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by

Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions

SERIES EDITOR'S INTRODUCTION

taken earlier. Volume VIII includes sections on "Empirical Semantics and 'Truth,'" "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion,

and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work enter-

SERIES EDITOR'S INTRODUCTION

ing into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach’s proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans’ special capacities for reason and moral consciousness come special responsibilities,

particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and

SERIES EDITOR'S INTRODUCTION

interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three

key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy)

SERIES EDITOR'S INTRODUCTION

make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this ap-

proach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manu-

SERIES EDITOR'S INTRODUCTION

scripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and

SERIES EDITOR'S INTRODUCTION

Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also

SERIES EDITOR'S INTRODUCTION

performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-

SERIES EDITOR'S INTRODUCTION

Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible “work fairies” that were constantly pulling me back to my office don’t actually exist. I can’t wait.

Most of all, thanks to Arne Naess for placing his trust in me—it’s been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora’s box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne’s writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder’s “Axe Handles.” The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The

SERIES EDITOR'S INTRODUCTION

first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.

SERIES EDITOR'S INTRODUCTION

6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary

SERIES EDITOR'S INTRODUCTION

philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as

SERIES EDITOR'S INTRODUCTION

being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.

24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhis Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecol-

SERIES EDITOR'S INTRODUCTION

ogy approach to ecophilosophy," the "deep ecology movement," and Naess's "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was "A philosopher." In fact, I had already conceived of myself as one. I viewed the

AUTHOR'S INTRODUCTION TO THE SERIES

writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that “What do I mean?” is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these “ordinary” people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally

AUTHOR'S INTRODUCTION TO THE SERIES

necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclina-

AUTHOR'S INTRODUCTION TO THE SERIES

tion very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it

AUTHOR'S INTRODUCTION TO THE SERIES

natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity,

AUTHOR'S INTRODUCTION TO THE SERIES

attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

An urgent issue today is whether economic globalization with a strong world market will make deep cultural differences impossible. As of now, there are still cultures that significantly differ from one another, with diverse views about nature and the world. At least to some degree, these differences can be articulated. We then get systems that are comparable in a rough and superficial way. Comparisons presuppose some common fundamental but very general ideas and procedures.

There are many worldviews, but is there only one *real* world? This question is taken up in this SWAN III volume. Twenty-five years of gradually less creative thinking have not changed my opinion in these matters. However, recent developments in philosophy have accentuated the problems in unpredictable ways. There is doubt among some anthropologists about the very concept of culture and especially about deep differences. Furthermore, doubt exists about concepts of foundations, which also touches science. "Science without foundation!" (Feyerabend). Is this merely an overreaction to extreme dogmatism—for example, the arrogant announcement that one has found the only conceivable set of ultimate premises that are absolutely valid? Such arrogance is rare, and markedly different from the single exposition of one's ultimate premises with an implicit claim that they are valid. I expect that existential philosophy of life and cosmos will flourish in the twenty-first century. No worldview will survive as THE real one.

Karl Jaspers's (1919) book *The Psychology of World Views* surveys and classifies personal worldviews. It is unique for its comprehensive and philosophical sophistication. It is sad how little influence it has had on recent philosophy-of-life reflections. Classification along his Dimension No. 2 has three subclasses. In rough English translations of the German text,

AUTHOR'S PREFACE TO THIS EDITION

they are: nature-mechanical worldviews, nature-historical worldviews, and nature-mythical worldviews.

It is astounding how much the richness of these worldviews has been underestimated and also how resilient they are to criticism. For example, materialistic systems are regularly said to be unable in principle to include theology and a supreme God. Yet, such systems were propagated in ancient Greece. For the atomists, God consisted of very smooth atoms communicating with us by means of extremely delicate waves emanating from those atoms. The crude waves of human communication, as well as the waves from sheer noise, usually make the waves from God inaudible. Therefore, meditation and listening in deep silence are recommended by proponents of these worldviews.

In short, and schematically, the natural, rich diversity of worldviews goes unrecognized because of mutual distrust: If a philosopher A offers a set of basic premises P_A , a second philosopher B says that from P_A something follows that everybody considers unacceptable. However, B would say that this something does *not* follow from P_B , and would add that from P_B such and such follows, which is clearly acceptable. There is a reluctance to give other creative philosophers “plenty of rope,” an expression I borrow from William James but one that is also well known to mountaineers. There is a tendency to choose interpretations of the texts of others that place their philosophy in a bad light, rather than ones favoring friendly cooperation in the unending pursuit of truth.

This book (SWAN III) makes use of my empirical semantics techniques, which offer sets of basic premises expressed in vague, ambiguous sentences as points of departure, formulations that are essential at the initial stages of an inquiry. The aim is to open the mind for encounters—never complete within a world of irreducibly different worldviews. In the second edition of this book, I invited readers to combine philosophical inquiry with cultural anthropology. The aim is to help prevent the reduction of the rich cultural and subcultural diversity that is essential for the further development of humanity. The long-term radical development of *Homo sapiens* may be cultural rather than biological. This requires protection of cultural mutations against the domination of a single family of similar industrial or green societies.

Strong economic forces are pushing for a world market that allows the free flow of capital, goods, services, and labor. It is difficult to see how

AUTHOR'S PREFACE TO THIS EDITION

deeply different cultures, some of which may be economically weak and vulnerable, can survive this onslaught. Provocative subcultures will survive, but in subcultures the continuity through generations is endangered. There is, for example, the need for proper school systems adapted to specific subcultures.

The philosophical systems of Aquinas, Spinoza, and Hegel are, in limited ways, meant to cover everything. In Indian and Chinese philosophical traditions, analogous systems have been created. In the [twentieth] century, linguistic philosophy has prevailed, especially in English-speaking countries, but grand systematizations may well see the light again. The two main arguments against the future value of *total views* are weak. The first, that they are too dogmatic, seems to be caused by the belief that the more general the view, the more likely it is that it will not be changed. However, Spinoza changed his views all through his life, and the same holds, as far as we can tell, for others. The second argument says that critical thinkers, such as Kant, have definitively shown the impossibility of reaching the goal of comprehensive metaphysical systems. However, such "proofs" are only hypothetical and have highly controversial premises.

In this book I accept the cognitive and practical value of systems but hold that the more like a total view they get, the less comparable they are, and the smaller are the possibilities for falsifying or undermining their fundamental tenets through argumentation. The change from acceptance to rejection must contain cognitive steps. In the terminology of some post-modernists, systems need "deconstruction." Others point out that all deconstructions, and their premises, may be deconstructed. The latter seems obvious to me. Worldviews of the most comprehensive kind have a great future as important cultural assets.

How can we live without taking seriously our feeling of what it means and entails to be a human being? How can we ignore the seemingly deep differences between people both in how they actually rank values and in how they act? We may ignore our more or less spontaneous, vast generalizations about life, and deeply different life conditions in different countries, or even in our own environment. We may consciously repress our vast generalizations, talking about a better life here rather than there, about the worst kind of life and the best. If asked, we may even deny that we have any

AUTHOR'S PREFACE TO THIS EDITION

view about life and the world. Some may laugh at the arrogance of people who profess a life- and worldview (*Lebens-und Weltanschauung*). These almost untranslatable terms were created in a country that has excelled in visionary generalizations, but where now the professional philosophers mostly reject the value and even the meaning of contributing to systematizations of life- and worldviews as all-embracing views.

I find untenable the prevalent rejection of life- and worldviews on the scale of Aquinas and Spinoza in the West, and of some great Chinese philosophers in the East. Since the 1960s I have consistently talked and written about a renaissance of great systems, that is, verbalizations of how one feels and thinks about existence, life, and the world in general. After all, some children by the age of four ask questions of a sublime and general character. In my opinion, no one has shown, through logic, philosophy of language, or any other kinds of arguments, that such grand systematic efforts are meaningless and fruitless. Should we leave these great tasks to the four-year-olds? We should all be able to have such fun!

Curiously enough, some critics see it as an imperfection that there is no consensus in questions of *Lebens-und Weltanschauung*. As long as there are deeply different cultures, and deeply different subcultures, we have reason to hope that the general outlook on life and the world will offer a great richness of fruitful differences, on par with the vast potentialities of human and natural creativity. Our spontaneous experiences and individual and cultural differences are a source of diversity that reveals the complex and deep richness of the *real* world.

Arne Naess

2004

Introduction

There is today a strange belief that science will slowly but surely solve all questions that have the possibility of a solution. With a scientific world-view as our framework, we will gradually elucidate human ends and activity, at least in all theoretically essential and practically important features. Because it is fruitless to try to anticipate the results of science, it is often argued — although unjustifiably — that it would be similarly fruitless to try to create more comprehensive syntheses than those permitted by scientific research. Such efforts may have their human uses, but they are not likely to be of any use in furthering science.

It is often said that extrapolation is unscientific and reveals a want of mental discipline. A wait-and-see attitude is more proper. Future generations will acquire a general view that we are not yet able to discern. Until then, the scientific attitude, the only intellectually honest one, dictates silence.

What happens, however, if our assumption that science will be able to generate a comprehensive world picture is an illusion (based on false conceptions about science)? What if we will have waited in vain? What if it is a delusion to believe that such a picture can emerge as a conclusion after innumerable single investigations?

Doubt with regard to the assumption that the more we perform scientific research the closer we get to a total view of the world, is not new. This doubt, however, is supported in very different ways. One standpoint argues that what purports to be a scientific world picture is an extrapolation in, scientifically speaking, unknown or insufficiently clarified dimensions. This criticism is based on a premise regarding the infinite multiplicity of types of phenomena in the world. If growing scientific knowledge is compared to the enlarged illuminated area that results from increasing the luminosity of our lamps, then the premise suggests that an ever larger area of

INTRODUCTION

darkness is also exposed. As more scientific problems are “solved,” so grows our capacity to formulate new unsolved problems.

A second standpoint stresses that science, in its basic features, is predetermined by its methods, axioms, postulates, and rules. These basic features cannot be the product of scientific research; they are presuppositions, not results, of research. The corollary is that the results of science cannot be integrated into any specific scientific world picture, but they may, perhaps, be integrated into philosophical world pictures, insofar as scientific presuppositions are subjects for philosophical research.

We are not on “the long road of approximation” (Kierkegaard) but in a historical process that causes the fragments to vary in character, to be perceived in new ways within a totality that itself varies and is not at all scientifically justified or justifiable in itself. Changes in methods, axioms, postulates, and rules are frequently, or perhaps always, at least in part motivated by results of research, but they cannot be said to be scientifically *justified*. Furthermore, the basis for making such modifications seldom seems to be self-evident, even to active researchers. Even if this were the case, we would still have the problem of *explaining* changes that were viewed as self-evident by individual scientists.

Let us return to the question of the possibility of a synthesis that is either a combination of the scientific and philosophical or is “purely” philosophical. In relation to this problem, as with others, one must distinguish between scepticism (Zeteticism, Pyrrhonism) and negativism (“Academic scepticism” in Greek terminology). The negativist denies human beings the *possibility* of working out all-embracing syntheses that can stand up to critical scrutiny. The sceptic—more precisely the Pyrrhonic zetetic—*seeks* (*zeteo*) to solve the questions that must be solved if the task is not to be declared impossible. The seeker thinks that what has been achieved so far does not measure up as an expression of plain, verified truth. There is no compelling reason to accept some relevant conclusions as more true or probable than others. A combination of two attitudes is suggested then: a seeking, sceptical attitude toward all total views, and a positive attitude toward wonder, not only as a point of departure, but also as the endpoint of philosophizing. (Beyond what I do understand, there seems, fortunately, to be much that I do not understand and shall never understand of philosophy and human cultures.)

INTRODUCTION

What follows here is motivated by this kind of seeking, sceptical attitude toward what already exists in the way of syntheses. The investigations in this book are sustained by delight in the multiplicity of ideas for syntheses that are already available to us in the twentieth century. It is a pleasure to contemplate and, to a very modest degree, to reexperience generously worked out, widely differing philosophies, basic attitudes, and views of the world and man. This is the pleasure of a wanderer, or rather a vagabond. The vagabond, in this sense, does not constantly seek to compile and integrate experiences.

Following these rough guidelines, we will treat my preceding sentence, which suggested that the results of science cannot be integrated into any single world picture, as a working hypothesis, not as a thesis I claim to be true. This hypothesis is based on historical and other studies that, besides being fragmentary, rest on methods and postulates that are not self-evident and fixed but admit to variations. It would be dishonest, however, to pretend that while writing this “thesis” and elaborating its consequences I do not have *trust* in it or an implicit confidence in its truth. The comfort that the dogmatist finds in conviction and hope, the sceptic finds in trust and wonder.

There is a belief that it is possible to create compendia of the history of philosophy that would clarify the exact interrelationships between individual philosophies with regard to their specific contents. At this point I see no possibility for such a survey and feel content to stand before something that unfathomable, something that no one can classify adequately.

Faced with someone who sees a want of engagement in scepticism, I would have to draw his attention to the fact that adopting a sceptical attitude makes it easier to gain insight into more than one view of life. Engagement without insight into the unfamiliar occurs on a false basis. If one is all the time certain in one’s heart where, or in what direction, Truth is to be found, insight into the unfamiliar becomes impossible. If one takes a certain presupposition as one’s point of departure, one cannot gain an intimate understanding of something that has an opposite presupposition. To do so, one must uncover one’s own presupposition, be willing to abandon it, identify oneself with the opposite presupposition, and see “everything” from this other point of view while at the same time maintaining a connection with the old presupposition. This involves at least a temporary relativization or suspension of

INTRODUCTION

both presuppositions. As long as one is convinced that one of them is more probable or true than the other, such a relativization is not possible. One cannot, as in the specific sciences, say, "If one presupposition is accepted, then so and so follows; if the other one is accepted, however, then such and such follows." Philosophies are too profound for such calculations; one has no immutable reference point from which to launch the if-then sentence.

Some may say that this delight in the multiplicity of alternatives must have some limits. How can one, for example, take pleasure in fascism, Nazism, Stalinism, or other extreme views of the world and man? The problem, however, is only ostensible: At the beginning of the twentieth century, attempts were indeed made to lay a philosophical foundation for fascism, but no great philosophical movement addressed such issues. No outline of a fascist philosophical system exists that is worth mentioning or that can be subjected to systematic analysis.

Scepticism, as a method of seeking, presupposes that one at least has ideas of what one is seeking. If one has the pretensions of a researcher, this implies that at the very least the ideas are sufficiently conceptualized to provide goal-standards (at least hypothetical ones) for what one seeks. A kind of standard of truth and genuineness must be retained, even if more precise formulations are held in suspense. In this sense, scepticism has at least one limit, but it is not a fixed limit. It is itself subject to wonder and search when we succeed in bringing it to awareness.

It is commonly believed that system construction must be accompanied by a blind faith in the system's truth and a strong belief in the falsity of other systems. The system creators whose ways of working are known to us, however, were constantly revising their standpoints, and one can trace their movement through many outlines and attempts. What they were sure of was a kind of intuitive, inarticulatable insight that their systems sought to express adequately. In relation to the articulated parts, these philosophers were regularly nondogmatic. Nevertheless, unfortunately, the locution *system* was and remains associated with *dogmatism*.

In what follows we shall distinguish sharply between a proposition's *degree of generality* and the *claim of certainty* with which it is asserted. One can pretend that a very specific statement (for example, about the blue anemone) is certain, and that an immensely general statement is highly uncertain (for example, about all the plants in the world). It is unreasonable to

attribute far-reaching pretensions of certainty to a philosopher simply by virtue of his expressing himself in very general terms and claiming, for example, that some of his statements are a priori. The a priori character does not relate to pretensions of certainty, but to relevant ways of verification. The great apriorist Nicolai Hartmann is particularly clear on this point.

Nevertheless, with regard to the intellectual legitimation of attempts to formulate a system, it is decisively important to consider one's standpoint on the question of whether implicit assumptions incorporating system character can be avoided at all. Perhaps the antisystematist is merely a person who does not want to, or dare to, bring his own attitudes to awareness and subject them to systematic articulation. Such an attitude cannot count on sympathy in philosophical debate.

Philosophers with deep respect or veneration for the sciences have noted how many systematizers have trudged carelessly or uncritically when considering a scientific topic (for example, Hegel in relation to Newton). These philosophers have also noted that some systematizers, out of excessive respect, exalted scientific hypotheses to all-embracing theories (for example, Spencer on Darwin). Owing to such unfortunate phenomena, there is a lamentable tendency to reject the study of systems.

The word *synthesis* is less central philosophically than *system*, but it generates more associations in the direction of this book's thrust. According to these associations, a synthesis does not have to mean that the various constituents are tightly knit and that the whole is closed. It is enough for the parts to be seen together; it is adequate that these parts or aspects of man, the universe, values and facts, or poetry and science are instructively related to each other. Inadequate synthesis would then be a matter of deficiencies if one asked the critical questions "How does this philosopher make room for . . . ?" "What is the standpoint of this philosopher to . . . ?"

One weakness of the term *synthesis* is that it deprives us of thinking of systems as originating in ways other than by bringing together things that were not united before. If one way of viewing the world and oneself is central for the system maker, the system may be said to be created by analysis of the manifestations of this way within various areas of cognition-logic, methodology, epistemology, psychology, and so on. Alternatively, the system may be created through differentiation of an unstructured whole, just as a newborn gradually learns to respond to different phenomena.

INTRODUCTION

Let us, however, return to the question of whether we can acquire an adequate overview of systems. It may be the ambitious dream of a historian of ideas to show how each philosopher's thoughts can be explained in terms of influences from other philosophers, from the milieu, from his time, and from everything else except the philosopher himself. But is a philosopher a kind of empty barrel?

Great philosophies are created by highly distinct personalities, and even the most abstract parts of their philosophical systems are expressions of living human beings and ways of seeing, feeling, and thinking. It would be a miracle if we could reexperience the world through the eyes of Plato and then Aristotle, Thomas Aquinas, Descartes, and Spinoza. As one concentrates on a particular philosopher, it simply becomes more difficult to bring out the differences between his view and others from any standpoint other than his own. Indeed, the difference seems to be that the others are wrong or do not see the whole truth. Plato did not see the world as Democritus saw it. Aristotle seemed unable to familiarize himself with the ways the pre-Socratics saw it. How could *we* possibly acquire an overview and see through the whole series? Do we have appreciably better qualifications, greater intellectual power, and more empathy than Plato and Aristotle?

We cannot expect to understand a system's sentences—even the most seemingly colorless and neutral ones—exactly as their author did. We can perhaps, to some extent, approach an authentic understanding and thereby look into worlds with essentially different structure, emotive atmosphere, and intellectual appeal from the one we habitually frequent—if, indeed, we frequent any definite world at all.

The road to an approximately authentic understanding presupposes, I think, that one turns away, *at least temporarily*, from all so-called surveys of philosophy and its history. By reading such works, one obtains a technique of acquisition and orientation that is limited to the surfaces of those systems. In learning to gloss over these, however, one remains cut off from a nuanced and deep understanding.

In Scandinavia, especially in Denmark and Norway, for more than half a century students learned a kind of survey of the history of philosophy that manifested itself, for example, in the selection of philosophers considered worth mentioning, in choosing how many “pages” were devoted to each philosopher, and in characterizing the relevant “-ism” terms. These terms are regularly taken as an indication of which characteristics are espe-

cially important among the innumerable possible ones. If it were possible to communicate in a few words and in a short time the most essential aspects of a philosophy, then even Spinoza would be blamed for having used several hundred pages to communicate what was most essential for him. In surveys of philosophy one might be able to include the most important *words* and *sentences*, but not the most important *concepts* and *views*.

In my own history of philosophy (Naess 1980), I have not wandered far from the beaten path except for a wide-reaching elimination of the vulgarizing “-isms.” The main reason for my conservatism is that I have not been able to find convincing arguments for choosing between the range of new alternatives.

In addition, it may seem difficult to oppose and renounce the grand overview because so many authors seem to master our cultural history so sovereignly. They are able to place and classify philosophers and schools of thought so that everything seems surprisingly intelligible. What is needed, however, is more abhorrence and less admiration for such things. Only when one can, without embarrassment, declare to himself and others that he has no adequate overview whatsoever, and that with few exceptions he is perplexed about what the various philosophies even involve, is there room for pleasure in the quite small approaches to deeper understanding. Grand surveys of philosophy and the history of ideas may then be tolerated simply as learned authors’ reports of whims and thoughts that they have gleaned while reading old texts and contemplating old works of art.

Indeed, lecture series or compendia of philosophy covering long periods of time are banished in some seats of learning. In others, they still have an important place. A researcher who accepts a position as a philosophy teacher at such an institution must face up to the fact that he may be required to lecture, within a limited number of hours, on a series of gigantic philosophical systems created by thinkers whose intelligence and perspicacity he is at the same time expected to bow before in awe. Furthermore, he must extract the “essentials” of the specifically philosophical contributions of the philosophies, indicate how one philosophy influences the other, and, more generally, how each fits—or does not fit—into all-encompassing, widely differing cultural epochs. For some of us who have participated in this, there is not only something unworthy but also something fascinating in such an arrangement. The manufacturing of philosophy accounts in pill form has perhaps sprung from excellent motives—the cultivation of

INTRODUCTION

our “cultural heritage,” respect and veneration for profundity and genius in generations other than our own, and even recognition that the road to truth cannot be established straightaway without inspecting different roads—but cruelty and noble motives often go together.

A survey is no hindrance if it is phrased so as to make the reader understand that he is moving on the surface and will become familiar with key words and important formulations, but not much more. Unfortunately, such representations are rare, and few readers appreciate such limitations. Most readers want a comprehensive survey of what is most essential that covers the most heterogeneous philosophies.

What, then, is so reprehensible about such a comprehensive “overview”? It is the fact that it reduces something immeasurable to something perspicuous, easy to grasp, and uniform. It favors pigeonholing, ordering, and control at the expense of imagination and empathy. What is unreasonable about the idea of an adequate overview covering all of philosophy is the implicit conception that heterogeneous, deep, and consequential thoughts can be demarcated and grasped in one and the same mind or in one and the same conceptual framework and that they can then be presented to any moderately gifted individual who makes a slight effort to grasp them. It is simply assumed that individuals can “approach” a deeper and more exact understanding of all philosophies without generating discontinuities, crises, blind leaps, or new difficulties. Kant, however, had great difficulty understanding Hume, and Berkeley found Spinoza rather unintelligible. Kant and Berkeley required, as do many of us today, a certain depth of understanding; they were not satisfied with a mere surface-level grasp. Therefore, they failed to create grand, total overviews.

Travel agencies, for example, often give advice about how to see Europe in one, two, or three weeks. One can actually see all the most famous places and works of art; nevertheless, we would say that this is a rather superficial introduction. It is hardly different in the worlds of thought. Philosophies are not suitable for sightseeing in the course of a few weeks. If one attempts to introduce someone into these worlds in this manner, one commits an injustice to the thinkers as well as to those who seek an understanding of them.

A philosophical system covers “everything,” and therefore the ego itself and the relationship between the individual and tradition. To understand two different systems, then, one must be able to perceive oneself and

INTRODUCTION

the world in two different ways. This requires significant training and much time and effort. It involves creating discontinuities in one's own person; one becomes another, and then yet another, and then returns "to oneself." It is doubtful that one returns to "oneself" as one was originally. This alone makes the possibility of obtaining an overview of *both* systems dubious. Who is the person who has the overview?

After these strong words against the pretensions of adequately surveying philosophical systems, some admissions are in order, particularly pedagogical ones. In the first encounter with the history of philosophy, it may be useful to sample widely differing philosophical terminologies in order to become stimulated to find something from which one can profit personally. Such superficial encounters can often be sufficient to give one an inkling of what kind of philosophy or which philosophers one will be able to study with great profit. Attempts to suggest main thoughts and tendencies in different philosophies in quite simple words and without any pretension of adequacy are an important pedagogical task. Understanding comes gradually, and at every stage there are specific ways of formulating one and the same topic.

I

Descriptions of Maximally Comprehensive Perspectives

Context and Overview: Some Questions

Plato claims that only a life subjected to examination and evaluation is worthy of human beings. Hence, he presupposes that we can examine, inspect, and evaluate life; that we can, as parts, grasp the whole. Starting with our childhood, we can successively enlarge our object of investigation until it covers our whole (unfinished) life as it unfolds in a world that must, in the main, be assumed to be known.

The philosopher sees things in connection with each other and seeks to articulate what he sees in the form of statements that something is thus and not otherwise. Let us, for a moment, dwell on the words and concepts in “The philosopher sees things in connection.” What does this sentence mean? Do the things comprise *everything* minus the philosopher and viewer? How comprehensive is “everything,” and what does the subtraction involve? When we begin to analyze such a sentence, problems emerge that are bad omens for the possibility of realizing comprehensive systems as well as the potential for renouncing systematic theories. The word *things* may make us focus attention on “things” in a narrow sense; for example, rigid bodies, but what we need is an exceedingly broad concept, something that also comprises awareness of things, something that comprises both π and justice, the philosopher himself and his insights and illusions.

This brings us to the next point, that the philosopher does not see much when he sees the way two things are related. Here we need the concept ‘see’, which philosophers have sought in vain to agree on. The context in which everything is seen must comprise the absence of many kinds of close connections; otherwise, one excludes the radical pluralist, as William James sometimes characterized himself, from the circle of philosophers.

One may have insight into the absence of something, and in something being an illusion. (What *is* it then and where in “the world” does it belong?)

A brief consideration of these words and concepts is likely to remind us of the superficial level on which our investigation must, in certain senses, remain. This is inevitable if we are to avoid immediate bias: as soon as we start precization and articulation of a conceptual framework, it is difficult to stop before we find ourselves standing inside the frame of presuppositions of a quite specific kind of philosophy. Therefore, we have precluded even a superficial consideration of other philosophies. It is perhaps similar to the view of a landscape. If we lose ourselves in beholding one tarn, not only do we lose contact with the other tarns, but also the original object — “small dark tarn in light landscape” — disappears. We move even farther away from the original object if we step down into the very tarn that we were viewing from a distance!

“World picture” is a metaphor that suggests all things may be seen in connection. World pictures are mental images of the whole world and, as such, there may be many of them and they may be compared at leisure. It sounds suspiciously simple. Can we really acquire an album of world pictures?

In Karl Jaspers’s *Psychologie der Weltanschauungen* (Psychology of world-views, 1919), he says that by a “world picture” he means “that which is objectual for man.” Jaspers’s term *objectual* (*gegenständlich*) is useful inasmuch as it alludes to an object concept that is much wider than the ordinary thing concept. However, it emerges from his own characterization of world pictures that this descriptive definition is inadequate. What Jaspers writes about are the kinds of syntheses that human beings form of the objectual (for example, a mythological cosmology and anthropology). Jaspers’s formulation would cover his actual use of the expression more adequately if he defined “world picture” as “picture of what is objectual for man,” or if he defined “the world picture of a human being” as “the picture of what is objectual for this human being.” The relativity — or rather the relationality — emerges clearly in the last formulation. The following problems arise: How can a human being perceive that others also have world pictures and that these may differ from his own? Furthermore, if a human being can perceive the world pictures of others, do these then become parts of his own? (If the world pictures of others are something objectual for me, they must, according to Jaspers’s modified definition, be parts of my world picture.)

In spite of his, in a certain respect, very wide concept of world pictures, Jaspers does not permit worldviews to be determined by the world pictures alone. He characterizes worldview as a combination or synthesis of world picture, attitude, and spiritual type (*Geistestypus*).¹ Thus, there is something outside a conception that nevertheless determines or characterizes it. There is, at least in part, a psychological element, a specifiable attitude, that produces the particular view of the objectual. Even if the presence of this element raises purely practical problems for the understanding and mutual comparison of views—something we shall touch on later—this in itself does not create the logical problems we shall discuss. Those arise from the very attempt to formulate total views—to treat everything as objectual.

A connection that one finds or postulates may be loose or tight; the specific parts of a context may be more or less autonomous and independent from one another. The connection that one speaks about may be thought to apply to a number of things that are of interest at the moment (for example, prices or demand and supply as regards the paintings of Edvard Munch, and so on). Then one does not pretend to have said anything at all about other things and their connection or lack of it. On the other hand, the context spoken about may conceivably cover the whole life of a human being, or life in general. We encounter difficulties when we try to say something about everything, as well as when we try to say something about a thing that has been abstracted from its context.

Before a life can be subjected to evaluation, it has to be examined as a whole. Does that whole, however, involve self-evaluation? At least not the same whole, one might say.

Evaluation of life is different from life itself. We are concerned about two different wholes. There is nothing paradoxical here. All our everyday reasoning and action give the impression of wholeness, even if they are not manifested as an explicit and consistent total world picture. Such an underlying unity must be presupposed if actions and arguments are not to seem senseless and pointless. This connection with other mutually confirming arguments, beliefs, and attitudes is present even if a person is entirely ignorant of the underlying unity and is perhaps unable to verbalize the complicated network of interdependent parts. This merely means that everyday human activity reflects a frame; hence, it may be regarded as a whole.

There is, however, something strange and paradoxical about the non-mundane philosophical activity of constructing systems that distinguishes

it from the more or less structured activities in everyday reasoning and action. Philosophical systems seem to be attempts to consider and articulate everything (activities, life, and the evaluation process itself). How can the unity that is basic to the activity of a system builder be considered, and made explicit, within the world picture that is the result of his own activity? Like any activity, especially any reasoning activity, system building requires certain rules. The system creator assumes a framework. Certain presuppositions are accepted, even if only implicitly. It is difficult to imagine how the system, which is indeed the product of these rules, incorporates independent presuppositions.

If we are interested in the study of foundations rather than superstructures, and the presuppositions rather than the conclusions of a dogmatic system, then our interest will involuntarily turn away from the explicit toward the implicit. If, for example, we examine an argument we have employed to justify that we know something and find that it does not satisfy the demands we had posed for justifying knowledge, then we discover how lenient our implicit criteria of knowledge were. When we become aware of our oversight, we may then investigate the stricter requirements that made us condemn our earlier argumentation as careless. Perhaps these requirements are also not strict enough? Perhaps they are too strict? Perhaps our initial procedure was not so bad after all? It is not impossible that a transition to a wider or larger frame may make us sceptical and uncertain regarding our previous sceptical worries concerning our original irresponsibility.

This shift of our attention from frame *A* to another frame *B* that also contains *A*, takes place within a new implicit frame where one may imagine making both frames *A* and *B* explicit. As we retreat in the chains of presuppositions, we immediately and unavoidably move from one frame to the next in a regressive series. Attention may then turn to frames of reference and thereby to the foundation of our whole way of posing the problem. The following questions arise: Why not get rid of the frame as well as the problems? Do we really have, and do we employ, an implicit frame of reference? How did this idea get involved in our considerations? What presuppositions did we use at this point?

Such reflection on frames of reference exemplifies how we can clarify our own presuppositions when we try to become clear about those of others. This thinking is itself a legitimate subject, and since this way of thinking is only an assumption about the nature of our methodological convictions,

then perhaps we can do without it, even if we cannot do without the methodology. It does not seem likely, however, that abandoning this terminology will lead us any closer to answering the questions that necessitated it.

We seem to be caught in a trap, unable to free ourselves and unable to start anew. We can examine all the beliefs we had until the moment of examination, but we never reach the critical examination itself. It is tempting here to quote Kierkegaard's wonderful rhetorical reflection in his main philosophical work *Concluding Unscientific Postscript* (1941) about "the System," but here are the essentials: The System begins with the immediate, and is therefore without any presuppositions whatsoever. The beginning is therefore an absolute beginning. But does it start immediately with the immediate? Kierkegaard finds that impossible. So what does the System really start with? Kierkegaard suggests that it starts with the reflection, existential reflection. And then he asks: How could one end the reflection and start with the System?

We mentioned how the all-encompassing character we try to give a frame is made explicit by a collection of basic beliefs or assumptions. The inescapable retreat into frames of higher order and the succeeding infinite regressions suggest that it is impossible in principle to formulate all basic principles of this all-encompassing kind. The whole eludes what we grasp and formulate in discursive thought. Just as we cannot inflate a balloon from the inside, we cannot examine a set of methodological beliefs without employing another set of beliefs. In order to examine one belief, we must do something analogous to blowing new air in from the outside, meaning that we must introduce or employ principles other than the ones we examine at the moment. In the regressive process of examining frames of reference, something eternally eludes us. (Of course this applies to the latter claim as well because it can also be subjected to critical examination. Parts of the frame of reference can be clarified, and implicit assumptions can be made explicit.)

The notion of fundamentality is itself a relational concept. We use our existing fundamental views to probe the set of views that are implicit in our first-order investigation, to build on the explicit elements of our first-order views to examine second-order views, and so on—*B* is basic or fundamental in relation to *A*, and *C* is fundamental in relation to *B*. If fundamentality is a relational concept, however, then the quest for a natural point of departure is no more realistic than a journey to reach the horizon.

The explicit total views that we find in the history of philosophy are fraught with paradoxes. Either a view is explicit but fragmentary, or it is total but implicit. If one considers the usage of the word *view*, one may arrive at a similar conclusion. A view is something from a place, and this place is not part of what is seen. One cannot have a total view in the sense of a view that comprises the view as well as the point from which it is seen. Perhaps it is only after philosophers and others attempt to work out gigantic systems that we ask, What makes system builders with “totalitarian” aspirations believe in the possibility of reaching their goals? It is only after considering what seem to be inescapable paradoxes or contradictions that we can begin to talk about conceiving the sort of preconscious views or inclinations that we must have before making philosophical investigations.

At this stage we must ask three main questions: (1) What kind of totality should we ascribe to a total system that cannot be completely explicit? (2) How can we explain the great philosophers’ belief in the possibility of total views? (3) What are the consequences of the unavoidable incompleteness of any explicit total view for the representation, survey, and comparison of philosophical systems?

In what follows we focus on the last of these three questions. First, however, let us consider briefly how we might answer the first two. A possible response to the first question has been suggested. Perhaps we should assume, as a counterpart to the explicit system elaborated by a philosopher, the existence of a basic preconscious view or orientation — a kind of matrix that is the basis of all attempts at investigating and explicating the concepts and categories in any implicit frame of reference. Since such a “view” could not itself be made explicit, it would not be a part of what could be investigated in this manner. This conception of the “totality” of a view would at least prevent the type of leakage that seems to result in any system in which an explicit methodology presupposes still another methodology, which then has to be made explicit, and so on. For if the explicit view arises from a preconscious matrix, then what it excludes is not something that it ought to include. This might tempt us to say that whatever can be clarified by means of concepts and categories in a certain way is an expression of the preconscious view that cannot itself be clarified in this manner. It then becomes questionable, however, whether we should call it a preconscious view at all. The word *view* suggests something that can be maintained and examined, which again implies the possibility of making it explicit. If the pre-

conscious is not regarded as a view, it would perhaps have to be considered as the cause of the explicit system, as its psychological foundation. We shall not pursue these questions further.

What about the second question regarding how belief in the possibility of explicit total views has arisen? This question may be phrased more precisely: How can it be explained, from the point of view of psychology or social science, that man has begun to speak or come to believe that he has spoken, or can speak intelligibly, about his total view, his logic, ontology, epistemology, and value system? How have we arrived at the possibility of contemplating our own total view as one among other views that can be made explicit?

Perhaps the belief has developed this way: We believe we notice that a particular human being always thinks and believes in a certain way (of the many possible ways we can imagine). The set of possibilities is implicitly fixed by our own — the observer's — frame of reference. To express as clearly as possible what distinguishes our view from that of others, we seek not only to make their views explicit, but also to make our own explicit. We tackle the latter as if it were identical to the former — something that already lies within our own frame. We are not fitted into our own frame, however, and this makes the second task completely different from the first. To perform it seems to me to be just as difficult as eating not just a part of oneself, but the whole. The analogy that makes one believe in the possibility of such an explication is fortuitous. A view that comprises other views does so by fastening the different views that it comprises to something else, the adjusting view. However, this latter view in its turn can be explained only by being adjusted in the same way, by being fastened to another something else.

Since the considerations about another person's views must be conceptualized within our own frame, our own views will also be in that position. Because we are primarily interested in contrasts, the part is mistaken for the whole (i.e., one's own fundamental conceptual framework tends to be overlooked). The same applies to another possible way in which this belief can arise, namely by looking back at earlier parts of one's life and attempting to investigate them. As Arthur Koestler reminisces, "My Party education had equipped my mind with such elaborate shock-absorbing buffers and elastic defenses that everything seen and heard became automatically transformed to fit the preconceived pattern" (Koestler 1949: 60).² One need

DESCRIPTIONS OF MAXIMALLY COMPREHENSIVE PERSPECTIVES

only take a small step away from the belief in an all-encompassing knowledge of one's own mind as it was at an earlier stage of development to imagine that one has at that moment a definite all-embracing view, which can be made verbally explicit as one view among others.

Within psychology, as in other sciences of humans, there have been conceptions of all-embracing views, and it has apparently been taken for granted that they were to be used in research in order to produce satisfactory neutral classifications of individuals or groups. Let me quote from one who has a strong belief in all-encompassing outlooks:

Our revised, more dynamic and concrete conception of an ideology may now be defined as the complete system of cognitive assumptions and affective identifications which manifest themselves in, or underlie, the thought, speech, aims, interests, ideals, ethical standards, actions—in short the behaviour—of an individual human being. (Walsby 1947: 145)

Walsby's belief in an underlying ideology has striking similarities to the belief in a God who manifests himself in everything that happens in the world. There seems to be a strong Hegelian tendency in ideology research, influenced by Karl Mannheim's comprehensive concepts. In his *Ideology and Utopia*, Mannheim writes, "Here we refer to the ideology of an age or a concrete historico-social group, e.g. of a class, when we are concerned with the characteristics and composition of the total structure of the mind of this epoch or of this group" (1936: 49 f.).

The ideology of a person that Walsby might wish to observe would have to be described and classified in relation to a frame so all-encompassing that it completely comprised the observed person's frame. The ideology of an age or a particular historical social group, such as Mannheim observed it, must at any point be surpassed by—be contained in—the ideology of Mannheim's group or age. The all-encompassing structure of Professor Mannheim's own mind must, in the same way as a divine intellect, provide a frame of reference and a conceptual structure of the most all-inclusive or value-neutral type. Concepts such as these are mighty factors in the construction of the images of fascists, communists, and others who cannot be reached via ordinary lines of communication because their basic views differ from those of the observer. One cannot discuss with them, but they understand the language of power.

Walsby presupposes, on the one hand, that the people he observes are developed comprehensively (so that their ideology can be derived) and, on the other hand, that their views can be understood by a nonspecialist. What is the outcome if by mishap one catches a logician in the net, for example, Professor Benson Mates? Before rejecting him as nonrepresentative, one would have to consider what he says about philosophical opinions—indeed, they are parts of the ideologies. Mates (1968) asks if, within a system that is approximately all-embracing, problems can arise that threaten its foundations. Unsolved empirical problems cannot threaten the foundations since they have an open character. If one constantly finds the opposite of what one expects (empirically), there is room for any conceivable change in the empirical hypotheses. Logical problems, it seems, may cause fundamental crises.

According to the logician and epistemologist Mates, we may consider such a crisis to be present today. This suggests that we should look for new foundations—a new set of basic logical concepts. Mates takes the logical antinomies as his point of departure. By “antinomy” he means an argument that has a logically false conclusion, yet seems to be valid, and has only analytical truths as premises. Examples are the liar³ and Russell’s antinomy.⁴ Mates does not expect that any intuitively evident solution will ever be found. He believes that, after 2,400 years during which philosophers have examined the liar, the proposed “cures” are still worse than the “illness.” The main difficulty is not a lack of powerful arguments; on the contrary, it is the existence of excellent, logically watertight arguments both pro and contra.

Mates suspects that a series of philosophical problems—free will, the existence of an external world, and so on—are such that the more precisely they are posed, the closer we come to ending up with contradictions that are equally well justified. The more precisely the problems are posed, the more apparent their antinomical character becomes. The conclusion is that if we put them together in suitable groups, some of our most basic concepts are radically defective.

It is difficult to say what we can do in such a situation. Mates thinks that the only cure is to “forget it all,” in the spirit of Hume. Imre Herman, Lucien Lévy-Bruhl, Mannheim, Walsby, and many others have no doubt that the fundamental convictions and attitudes of others—for example,

their logic — can always be described and compared.⁵ In cases in which the all-embracing description is directed at so-called primitives, the observer is seldom exposed to a reversal of roles; the primitive merely ignores the scientist's total view. If, however, the social scientist is confronted with critical or enraged adherents of systems that are not verbally primitive, then he will become conscious of some of his own assumptions, and he will speak about, or believe that he can speak about, his own basic frame of reference. In the course of rationalizing his implicit assumption that he can discover and satisfactorily describe the total views of others, he can be led to believe that he also has a total view that is capable of being verbalized. That which he more or less uncritically ascribes to others, he now feels compelled to ascribe to himself. He insists that he has a total view and is willing to verbalize it, using terms such as *the world*, *man*, *freedom*, *progress*, and so on.

It is tempting, even if the method annuls itself, to apply Heidegger's system when one seeks to characterize the attitude of philosophers and scientists who unhesitatingly and unreservedly give all-embracing descriptions of ideologies, total views, and philosophies, primitive or not primitive. Heidegger writes about the way of being when "das Man" has the upper hand, and one is generally comfortable with it in its very degeneracy (*Verfallenheit*):

Prattle (*Gerede*) and ambiguity, the having-seen-all and having-understood-all — builds up the assumption that the openness of *Dasein* accessible in this way can guarantee *Dasein* that all the possibilities of its being are secured, genuine and unfolded. The self-assurance and resoluteness of *das Man* spreads a growing frugality as regards actual "personally" appropriated understanding.
(Heidegger 1927: 177)

Formulation of Systems

System Concepts

The term *system* will be used somewhat loosely to describe sets of propositions, rules, or postulates that are in part explicit and in part implicit and that purport to cover a large and essential part of all possible kinds of objects of thought and imagination. The system may be said to be total when it is intended to cover all such parts. Something can be represented by a system, although not everything that can be said about this "something" (the

object) is said. Plato's theory of forms covers all forms without saying something about each one. Newton's theory of matter covers all material particles without saying anything about a single one of them.

The representation of "system" is intended to ensure that what is traditionally characterized as a system in the history of philosophy can be subsumed under this designation relatively unproblematically. Of a person, group, or nation, we sometimes say that she or it has a general or total orientation toward existence. We contrast such general orientations with attitudes toward a limited phenomenon or a limited aspect of reality. We speak of views of existence as a whole as total views or total systems. For professional reasons, the word *system* is preferred over view.

Since Aristotle, we recognize attempts to verbalize general orientations in the form of long series of formulations that seek to cover all subjects. These general orientations, however, do not appear in the form of detailed knowledge: one seeks to express only the vital or essential aspects of categories of thought. One has not restricted access to new material, but one has predetermined its categories. If something occurs that defies the divisions, the system bursts. If, however, the system is "sufficiently total," such a thing cannot occur. We will return to this point later.

Philosophical vocabulary includes words that, besides having other uses, characterize general orientations: rationalism, pragmatism, materialism, Spinozism, Hegelianism, and others. These catchwords are useful for our deliberations as long as we remember that they are adapted to the *history of ideas*, not the *systematization of ideas*.

Some systems are explicitly presented as systems (Aristotle, Hobbes, Spinoza); others are not. Among the latter, there may be explicit rejections of philosophical system construction (Sextus, Hume, Kant, Wittgenstein). It would lead to unfruitful distinctions to exclude total orientations to existence, verbalized but "antisystematic" thoughts about all essential subjects, just because they also contain direct antisystematic statements. If system *A* answers 1,000 questions and system *B* consists of arguments connected to each of these questions with the conclusion "pseudo-question," *B* has indeed a very negative character, but this is not sufficient reason to deny that it is a system.

It is another matter with Sextus Empiricus and Pyrrhonism as he represents it. Pyrrhonism contains no assertions at all. The possibility of knowledge is not denied. The Academic sceptics, on the other hand, deny the possi-

bility of knowledge. Therefore, they are involved in arguments committing them to acceptance of propositions, and we may speak about an Academic-sceptical system (provided the possibility of complete consistency is accepted). As a questioner, in relation to others and himself, the Pyrrhonic philosopher participates in discussion, but not as one who asserts anything. There is a Pyrrhonic philosopher but no Pyrrhonic system.⁶

From Socrates' time to our own century's Rudolf Carnap, Ludwig Wittgenstein, and G. E. Moore, antisystematic, but nevertheless approximately total, verbalized orientations have existed. In what follows, the primary focus will be on the more or less explicit system constructions.

To understand philosophical systems, we must keep the pretension of totality (*Ganzheitsanspruch*) clearly in mind. The philosopher's struggle to gain an entirely sublime perspective, his striving to avoid the fact that something hides behind his back and may thereby remain invisible, must necessarily put its stamp on much of his work. Thus, abstract ontological reflections may acquire a weight that must seem incomprehensible to anyone except the totality-seeker himself. Bertrand Russell's monograph about Leibniz (1937) illuminates the importance of seeking out precisely the decisive problems of the system creator.

In the preceding, the word *orientation* is often preferred to *belief*. As I construe it, an orientation also comprises one's attitudes toward what one believes. Furthermore, an orientation can encompass beliefs. Hence, the word *orientation* in the preceding is meant to express a more general concept than 'belief', and to emphasize something active that involves both subject and object.

In his doctrine of philosophical systems, Everett W. Hall (1960: 1) assumes a rather wide concept. By "philosophical system" he means something like a "set of categories." This is hardly a satisfactory point of departure. He uses "category" in a sense close to the *Oxford English Dictionary's* second, extremely wide definition: "a class, or division, in any general scheme of classification" (Hall 1960: 3). Actually, he has no use for such an extremely wide concept. As an example of a system, he mentions the Scholastics' "transcendentals": *ens* (entity), *unum* (unity), *res* (thing), *aliquid* (something), *verum* (truth), *bonum* (good). In our terminology, we would say that these are categorial basic concepts within a class of possible systems. If we connect the concepts and define them in various ways, they

may become limited parts of the conceptual structure in systems defined as on page 10. Differences might arise, for example, by using different definitions of *true*, as these are developed within Scholasticism.

Categories in Hall's sense are not propositions; their adequate verbal expressions are terms, not statements. According to Hall, a system does not need to be expressed as a set of contentions. Such a rule is appropriate if one inserts an "only": an adequate articulation of a philosophical system cannot consist *only* of contentions or propositions. On the other hand, our concept 'philosophical system' is impossible to identify only by using categories. Certain Scholastic systems can, as a first approximation, be articulated by constructing a set of descriptive and normative sentences in which the expressions *ens*, *unum*, *res*, *aliquid*, *verum*, and *bonum* occupy a characteristic position. A group or family of such systems can be characterized by the fact that they are based upon, or make a central use of, these categories. No single system, however, can be exhaustively characterized by them.

For reasons that easily follow from the preceding, we shall therefore not seek to characterize a system definitionally by a set of concepts, a conceptual structure, or a conceptual frame of reference. The requirement that systems must not contain contradictions leads to interesting research problems concerning disciplines that are said by experts within the discipline to involve conflicting presuppositions. Let us consider an example. Many lawyers and philosophers of law have struggled with problems of free will.

One can indeed say that in our conception of law and our evaluations of it, we operate with mutually incompatible presuppositions. In our demand that the law must be just, we presuppose a certain freedom of will. In our demand that the law be efficient we assume that the law, as a causal factor, can create motives and thereby act as a determinant of human conduct. (Castberg 1966: 65)

Experts on "law and our evaluations of it" acquiesce in what they at least suppose is a contradiction, as long as the contradiction cannot be formulated within their field, that is, within the subject "law and our evaluations of it." When the contradiction lies in the *presuppositions* of what is said within the field, scruples of professional ethics do not arise. It is left to others to alleviate the contradiction, for example, to philosophers who specialize in free-will problems. The elimination of the contradiction, if it exists, may be sought by confronting the philosophy of law with a series of philo-

sophical theories and precizations of sentences such as “*x* acts freely,” “*x* is determined by *y*,” and so on. Only those syntheses that yield a consistent set of presuppositions can be integrated in a total system.

According to the indicated use of the term *system*, a system is total if it covers all partial systems. It is here taken for granted that a kind of basic distribution of subjects is possible. If this were not the case, one could not place systems in relation to each other so that they appeared to be possible parts of a whole. A circularity cannot be avoided here: a total system can be constituted only by integrating partial systems, but constitution of a partial system qua partial system can occur only in relation to the idea of a total system. To avoid the specific difficulties involved in the notion of an absolute system, it is appropriate to focus on the movement from less total to more total, hence on the phase of integration in which a system is expanded successively. When the integration reaches a level at which the system begins, in a relatively vague manner, to cover the traditional disciplines of philosophy, most problems of interest to those other than specialists in logic also emerge clearly. Specifically, logical problems do arise (for example, in connection with self-reference: that the system must be applicable to itself), but these problems arise only with attempts at maximal precision and depth of intention.

Following our proposed use of the word *system*, a system is on the level of connotation, not denotation (reference)—the B-level in the Semiotic Triangle. It is something that is expressed by a specific set of texts. This implies that different sets of texts can express the same system. It further implies that in the absence of direct knowledge of the B-level, the claim that a text expresses a system is a hypothesis of a very special type. Recognizing the need to choose a mode of conception and definition within a total system brings us to ask, Can we find a neutral semantics?

We have already begun to choose a semantic metasystem for the study of the semantic characteristics of systems by virtue of characterizing systems as things that exist on the level of connotation (the B-level) and not on the level of formulation (the A-level). At this point, we have probably already lost our neutrality. Some systems may contain semantic part-systems incompatible with our own, and this may endanger our description of the system.

On the basis of the selected use of the term *system*, it is easy to give a preliminary indication of what must be counted as different systems. As soon as the depth of intention increases and we transcend the level of every-

day parlance (the “ T_0 -level”), it turns out to be very difficult to define criteria to describe the difference.

If two sets of propositions, rules, or postulates are presented and at least one proposition, rule, or postulate is different, then the sets are different. If the two sets constitute systems, then the systems are different.

In practice, texts and authorship play a decisive role in our identification of systems. If two different philosophers write two different texts, and we believe the texts express systems, we take it as a matter of course that the systems are different. We tend to treat systems as if they belong on the level of signs or texts (the A-level). To consistently identify philosophical systems with texts, however, leads to even greater difficulties than if we try to restrict them to the B-level. I mention this because a problem is encountered immediately when one attempts to compare sets of propositions, rules, or postulates. By putting “and” or “full stop” between the various propositions, rules, and postulates, we can significantly vary the number of sentences used to characterize a system (on the A-level). The use of “sets of propositions” depends, strictly speaking, on the dubious presupposition that one can in fact indicate all the necessary propositions with a specific number of sentences. If one includes implicit propositions in the set, the situation becomes even more difficult. Implicit propositions are those representatives of the system that may never have been articulated but that would likely be revealed when the system is reviewed in an exhaustive way and contrasted to other systems. Here the indication of particular numbers of propositions must seem highly dubious. For comfort, however, one may limit oneself to defining sets by relations relative to other sets (inclusion, exclusion, emptiness, and so on), and thereby avoid having to specify the number of elements in a set.

Jaspers's Typology of World Pictures

It is not within the scope of this work to give a classification of systems. Nevertheless, Jaspers's attempt to create a typology of world pictures on psychological grounds is so instructive for our questions that we find it important to consider some aspects of it.⁷

Under the term *world picture*, Jaspers includes far more than the products of professional philosophy. The latter, however, are special formulations of something that has a universal basis. Presumably, if one aims at a

DESCRIPTIONS OF MAXIMALLY COMPREHENSIVE PERSPECTIVES

typology, the study of the most refined philosophical culture products ought to take the “more general” for its point of departure. It is well worth the trouble to highlight Jaspers’s typology.

First Main Class: Total Pictures of the Sensible in Space

Jaspers’s types according to Division Fundament No. 1 are:

1. *Immediate World Pictures*. With regard to a person’s immediate world picture at a given time, Jaspers seems to include whatever this person experiences insofar as it is experienced as something outside the person herself, in space. Jaspers gives examples: colors, tones, smells, horizons, and so on. By the word *world*, he presumably suggests a kind of synthesis or combination of these constituents.
2. *Pictures of a Limited Cosmos “Behind” the Immediate*. There are also conceptions of a “world” behind that which is immediately experienced. Such a world cannot be perceived but is perceivable in principle. Every human being creates fragments of a geographic-cosmic world picture. The first systematic pictures are of a limited and finite cosmos.
3. *Spatio-Temporal Infinity*. Giordano Bruno gave us pictures of infinitely many worlds in an infinite space. Jaspers’s acceptance of the infinity of the spatial world did not yet, in 1919, take seriously Einstein’s distinction between infinity and unlimitedness. Today we know, perhaps, that the world is finite but unlimited.

Already by this division, Jaspers has ventured a solution to immense problems. The three types of total pictures indicated here by Jaspers are, strictly speaking, not kinds of actually occurring world pictures, but sides or aspects of something, x , that comprises 1 and 2, or 1 and 3, or 1, 2, and 3.

Today, Jaspers’s doctrine about what is immediate will presumably seem peculiar and rather special. We do not live in the present moment but in something that has a considerable fullness in time. The moment is formed by abstraction. Furthermore, tones and colors do not have the special relationship to the immediately given that psychology in Jaspers’s period assumed. We do not live in a shop where tones, smells, degrees of hard-

ness, and so on are to be found on shelves. Here Gestalt psychology and phenomenological trends have provided correcting insights. Furthermore, *inventorying* the immediately given is not the same as *describing* the immediately given. Here Jaspers encounters the problem of the relationship between living in a certain world and precisely conceptualizing that world. What can reflection and consciousness achieve here? Are we not inhabitants of this immediate world? Furthermore, can the world in which we live be abstracted from our evaluations and attitudes? Jaspers answers no. Under the title "Evaluations" (*Wertungen*), he touches on the plurality of values, noting that value hierarchies vary from individual to individual. If I find Vigeland Park beautiful, that which I find beautiful does not move from Oslo to Paris when I myself move. The beauty is in Vigeland Park, not in me. It belongs to my world picture, to that which I conceive as being outside myself. The same notion applies to a host of other evaluations. Turning to attitudes, consider how an object's utility contributes to our view of the object.

Attempts to draw a distinction between internal and external will have deep repercussions on philosophical problems. These repercussions will manifest themselves in different ways, which depend on what basic philosophical positions are assumed. These efforts will, of course, also vary according to the results of scientific research (psychology, sociology, and so on), which different individuals seek to exploit or ignore.

These critical remarks may make it appear as though my aim is to replace Jaspers's classification, but that is not my intention. The remarks are meant to illustrate difficulties that immediately arise with such distinctions. As soon as they are expressed somewhat precisely, such distinctions can no longer be viewed as philosophically and scientifically neutral.

Attempts to delineate immediate from more reflected worlds, and sense-worlds from conceptions of more or less hidden or merely imagined worlds (for example, worlds in which there are no secondary and tertiary sensory qualities), are nevertheless important for understanding how the search for total systems arises. They remind us that "everything hangs together." The various proposed worlds appear, at least in part, as ethereal or arbitrary abstractions—but abstractions from what? There is a great temptation to answer: from the only concrete and real world. But which one is that? From what world are the different conceptions we have been considering drawn? It is precisely the different conceptions of that world that we

have sought to consider. It is this treatment that first (heuristically) motivated the introduction of abstractions.

Let us now move on to Jaspers's types according to Division Fundamental No. 2. According to Jaspers, three types of world pictures develop by differentiation from the immediate world picture, which contains the seed of all later ones. They are:

1. Nature-mechanical world pictures.
2. Nature-historical world pictures.
3. Nature-mythical world pictures.

The nature-mechanical pictures are nonsensuous; they are construed by abstraction and mathematical analysis. Everything qualitative and intuitive is forced out of the world. Nature becomes something that can be computed and controlled.

The nature-historical world pictures retain the secondary sensory qualities and seek to provide a natural division of the sensuous variety of nature. Jaspers says that loving absorption in individual phenomena (insects, crystals, mountain formations, and so on), a morphological appreciation of everything that is created, is characteristic of this world picture.

The nature-mythical world pictures contrast with the other two (and developed from them) by making room for what the others consider to be "mere" experience, symbolism, mental life, or fiction. The atmosphere of scenery is in the scenery, not in the soul. The atmosphere has object character. "Objectively, phenomenologically formulated, man finds in this world infinitely many connections and analogies, which we know from the whole of history, all the way from the Babylonian doctrine of the connection between the movements of the stars and human destinies: everything in nature stands in an intimate kinship: human beings, stars, animals, plants, organs, minerals, metals" (Jaspers 1919: 161).

The three types of world pictures have become "absolutized" into *philosophical* world pictures: mechanistic (for example, Democritus), naturalistic (for example, Ernst Haeckel), and nature-mystical (for example, romanticism, theosophy, and Gustav Fechner).

Implicitly, Jaspers assumes that philosophy seeks more comprehensive and unified pictures. A demand for a total picture is operative, and it is

strongly supported by a requirement for consistency. In an (unphilosophical) individual, however, the three types of pictures can coexist, each alternating with the other in domination.

In line with Wilhelm Dilthey's view, Jaspers exemplifies the "absolutization" that is common in attempts to form total systems (in my terminology) by referring to Goethe's passionate struggle against Newton's mechanical theory of colors.

Goethe held the mechanical explanation of nature as something absolute, as philosophy of nature, while it was merely an abstracting emphasis of a connection with the purpose of grasping and mastering nature from this point of view. Likewise, Goethe absolutized his own nature-historical procedure and had to fail insofar as he did not recognize the essence of the other procedure. (Jaspers 1919: 142)

Jaspers's view of system differences between Goethe and Newton is itself part of a larger web, part of Jaspers's view of history, methodology, mechanical explanation of nature, and nature-historical procedure. From other "meta-systematic" points of view, such system differences may contrast profoundly. An example is the difference seen from the point of view of Hjalmar Hegge (1967). According to Hegge, Goethe's methodology is based on an epistemologically fundamental position in which man has the capacity of *exact sensuous fantasy* ("eine exakte *sinnliche* Phantasie"), a specific cognitive ability. Goethe's "sensuous fantasy" refers to a form of cognition that must first be developed through the researcher's work with the material of experience. It is not part of his makeup (except as latent talent), but rather is comparable to an *organ* (an expression used by Goethe himself) that is developed, or perhaps, trained, by systematic use. Here, Goethe's view of science is radically opposed to the generally predominant conception in epistemology today.

Jaspers suggests that a (nearly) total system must contain all three pictures — a very daring position from the standpoint of the doctrine of systems.

The fight about the world pictures always begins only with the absolutization, that is, when a world picture will apply to everything and for everybody: nature is not only a dead mechanism, not only life, not only mythical world. It is everything, but only for the one who looks positively and the one who exclusively looks at the moment, not for the one who denies, the one who takes from each standpoint merely the no in relation to the others. (Jaspers 1919: 143)

This seems very convincing—a speech in favor of the open mind that makes room for everything. The positively oriented person in Jaspers's terminology, however, is not yet a philosopher, and maybe he is right in abstaining from such attempts. For it is precisely the attempts to integrate the three types that lead one to interesting difficulties. The absolutization that Jaspers mentions can be reflected or superficial. In the deeply based absolutizations, room is sought for all three pictures, but within the frame of a single total view. Consider the atomic theory of antiquity which contains the doctrine of mental phenomena as especially smooth atoms. In this theory, atoms cannot be identified as corporeal or material. An atomic world with only smooth atoms contains only souls and gods! Even if all atoms have extension, this does not entail corporeality. The atomic theory provides examples of "absolutizations" of the nature-mechanical world pictures wherein *everything* sought is encompassed. Analogous examples can be given for the other two types.

All models, however, are restricted in their accuracy. No model or method can justifiably claim to be regarded as fundamental or all-inclusive. This relativity is itself relative. It can be denied without inconsistency; the nonrelative standpoint is not, however, thereby reestablished and stabilized. This was my position in *Erkenntnis und wissenschaftliches Verhalten* (Science as behavior):

We believe that all models and methods must have a limited range of application and that they are most effective within this range. We have strongly emphasized the relativity of models in connection with subjective models. We can now emphasize that in our opinion behavioral models are just as relative as the subjective ones.

Our asserted relativity is also relative. When someone objects that the argumentation is either too unclear to be disproved at all, or leads to an infinite regress, then we answer: Indeed, if we both assume fixed models where (1) infinite regress is definable and (2) a prohibition against *regressus ad infinitum* is derivable—or if we both accept the same criteria of clarity. Perhaps we finally agree and accept the same models and criteria, but perhaps we don't agree!

If we disregard a model's relative unsuitability as a means to solve specific tasks at hand in an appropriate way, then any suitable model can justifiably claim universal applicability. In this sense any method, any attitude that serves to master a situation, can give occasion to an all-inclusive absolutistic system. It is merely a question of applying sufficient time and fanaticism to it.

(Naess 1936: 247–48)

Hence, we need a concept of absolutization that is evaluationally neutral—a concept that covers, in principle, a completely defensible generalization or extension of propositions or postulates with respect to a range of applications. From intended validity within a partial area, or from an aspect, one generalizes to unrestricted validity.

*Second Main Class: Total Pictures with
Point of Departure in the Mental and Cultural*

Jaspers depicts the following constituents:

1. The individual's own immediate world.
2. The world of the other and the stranger.
3. The infinite world of the intelligible.

Jaspers illustrates the individual's immediate world by referring to the fact that we construe meanings and motives as something perceptible and objectual: we understand or misunderstand people, actions, and works of art. (We note in passing that misunderstanding is by no means the least interesting and revealing form of understanding.)

We also seek to immerse ourselves in the worlds of others, in other cultures. We consciously seek to see things from points of view that are foreign to us. Our world can expand to comprise, *inter alia*, spiritual, logical, aesthetic, religious, and political spheres. The potential for expanding our perspective is limitless, but it necessitates becoming aware of our own perspective's relativity.

In the world picture of the infinite comprehension there are unlimited possibilities for experiences and cultural contents for man. One sees the limitation and relativity in one's own mental and cultural existence, insofar as this has objective form.
(Jaspers 1919: 153)

So much material and so much comparison can render our own existence problematic and deprive us of our instinctive will. The enormity of such a project may lead to internal submission and to satisfaction with contemplation and inauthenticity. If the historical and psychological world picture is absolutized on the basis of such tendencies, one speaks of *historicism* and *psychologism*. The person who becomes addicted to such absolutization may be

DESCRIPTIONS OF MAXIMALLY COMPREHENSIVE PERSPECTIVES

characterized thus: Instead of arguing, he understands and explains. Instead of choosing, assenting, or opposing, he passively acquiesces in everything effective because it is effective. He refrains from any evaluation (Jaspers 1919: 158). These words are well worth considering when one tackles an investigation of world pictures *en gros*. Absolutizing historicism and psychologism is then close at hand. In Jaspers's own case, his typological endeavor did not lead to any philosophical self-renunciation. We note that Jaspers's typological endeavor was not performed with a purely descriptive aim either: Jaspers selects and discards, recommends and deprecates, gives praise and blame. He does not pretend (or should not pretend) to be evaluationally neutral. In that respect, the title *Psychologie der Weltanschauungen* is misleading, as Jaspers suggested in the preface to a later edition of his work.

Third Main Class: The Metaphysical Total Pictures

Types divided according to *content* are:

1. Mythological-demonic world pictures.
2. Philosophical world pictures.

These types can be further divided into:

- a. Absolutizations of some concrete world pictures.
- b. Rationalistic and pan-logistic world pictures.
- c. Negative theologies.
- d. Mythical/speculative world pictures.

In addition, philosophical world pictures can be subdivided according to a particular philosopher's ways of thinking:

1. Beholding types.
2. Substance-directed way of thinking.
3. Formal way of thinking.
4. Ordering/receptive way of thinking.

According to Jaspers, metaphysical world pictures are those that "concern the *whole* and the *absolute*" (1919: 161). The metaphysician responds to

the question “What is the actual, ultimate reality?” Plato answers by referring to the realm of ideas: the sensible world is unreal, or not of the highest degree of reality.

In the mythological-demonic world pictures, people *live*, “one does not ask intellectually.” These people provide intuitive background through myths about the world, about the origin and destruction of gods, and about obscure forces that form our destinies. In contrast to the mythological-demonic world pictures, the philosophical ones, according to Jaspers, are characterized not by depending on authority, but by appealing to the individual’s own original experience. The picture is sought empirically and is justified intellectually.

Absolutization of mechanism, naturalism, psychologism, and historicism gives rise to philosophical world pictures that can be divided into two types: those that take the object for their point of departure (materialism) and those that take the subject for their point of departure (spiritualism). In the rationalistic and pan-logistic world pictures, outlines of the connections between our views are absolutized. Instead of saying that everything is either stuff or something else perceptible, one says that it is logos, number, being, becoming, and so on. Jaspers himself construes a metatheory, perhaps on a Kantian basis, with “forms of connections of our views.” Regarding the opinions about the absolute itself, Jaspers believes that Hegel has provided a clear survey:

The absolute is Being (Parmenides), is Nothing (Buddha), is becoming (Heraclitus), is quantity (Pythagoras), is object (Leibniz, monad), is substance (Spinoza), is subject (Kant, Fichte). For Hegel himself the absolute qua spirit is all of this, each exists merely as moment. (Jaspers 1919: 174–75)

This quotation shows, rather dramatically, what the result may be when one thinks it is possible to stand above the systems and describe them objectively and clearly, both as they themselves were intended and within one’s own supersystematic frame. Everything is perspicuously ordered by a small set of words that the metasystematician presumes the reader will understand in the same way he does.

There is, however, scant reason to believe that such a supersystematic conceptual framework can be ferreted out and made precise. Such surveys of all intended absolutes can be comprehended only as long as one is permitted to float on the purely everyday associations of the words *be*, *not*, *become*,

number, object, and so on. As far as I understand, however, such a level of comprehension is inadequate. This becomes apparent when one immerses oneself in the writings of any particular philosopher: the more deeply one penetrates, the more one manages to see *everything* from this one system—provided the philosopher actually intended a view that concerns everything. Other philosophical attempts will then either not be perceived or will find a place within the frame in which one immerses oneself. Hence, an opportunity for fully coordinating the different systems does not seem to be present; not if one seeks to move from word to word-meaning, sense, and concept. As long as one keeps to the very wording in “Spinoza means that the substance is the absolute, not being, nothing, world, and so on,” one can obtain a kind of superficial understanding. If, however, one asks, What does the word *substantia* stand for in Spinoza’s thought?, the intelligibility of the schema diminishes until it becomes more or less meaningless.

In relation to Jaspers’s exposition at this point, I shall, in conclusion, only pose the question “What basis does Jaspers’s account rest on?” Does a statement such as “Spinoza takes the substance, not the object to be the absolute, Leibniz the object, but not the substance” make sense if one assumes plausible interpretations of their writings? Can such a comparison be undertaken at any level other than a superficial one?

The third kind of philosophical system, according to Jaspers, is the “negative theology.”

The thinker constantly experiences that, when thinking, he turns that which he thinks into object, thereby delimiting it, and that by virtue of this he no longer retains the totality: the object of his thought has become finite. These inescapable characteristics of the rational constantly become conscious, and so the totality of the world picture ends with merely *negations* and *paradoxes* being asserted about the totality. Thereby one withholds from knowledge that which is reserved for experience, appropriation, and faith, that which is inexpressible, unknowable, but which becomes symptom of forces in man and gives the direction to his interminable endeavor. By its form this world picture is only pure reference without content (Cusanus’s *docta ignorantia*), in ancient theology as in Kantian philosophy, however different these worldviews can otherwise be.

(Jaspers 1919: 175)

The point of departure for the negative theology, as Jaspers describes it, seems very special. This is because one must already operate with specific

kinds of concepts and postulates before one can justifiably assert that certain characteristics of the rational are unavoidable and that the only possibility left for statements about the whole consists of negations and paradoxes. This is not meant as a criticism of Jaspers's division, but as a reminder that all the conceptual demarcations ('rational', 'the whole' or 'totality', 'subject', 'object', 'paradox', and so on) and methodological postulates or axioms must be presupposed *before* one can, on a rational basis, accept or reject such a division. Jaspers presupposes acceptance of an enormous conceptual apparatus.

The fourth type of philosophical system, the mythical-speculative world pictures, is viewed by Jaspers as closely related to the negative theologies. (Jaspers uses only nine additional lines to discuss them.)

Finally, Jaspers subdivides the world pictures according to the ways of thinking (*philosophische Denkungsarten*) that are manifested in the pictures. The beholding type is the most original and uniform. The substance-directed is the most creative with respect to conceptual richness. It seeks, above all, logical justification and coherence. The formal becomes empty because the subject and "the personal-philosophical existence" become unimportant. "From a thoughtful, worldwide mastery of the achieved and acquired arises a scientific school activity that has a strange ambiguity: modest and omniscient" (Jaspers 1919: 187).

With this brief rendering, the reference to Jaspers's rich and instructive work must be concluded. It is regrettable that the line that Jaspers has taken up with so much energy and insight has not been continued. Typology of worldviews is a central concern for systematicians as well as for historians of philosophy, and, presumably, it cannot be pushed to the periphery of psychology and social science for long, as is now the case.

For the central problems of this book, Jaspers's work has significance as support for the following points of view:

1. Even though philosophical systems have many peculiarities in aim and execution, they can be adequately understood only against a broader background, namely worldviews. Fundamental ideas and points of view, and also ultimate aims — systematic and personal — have had and presumably will continue to have their origin in worldviews. As an example, consider Spinoza's struggle for clarity

in the matter of worldview, which brought him into purely philosophical lines of thinking. His *Short Treatise* on God, man, and man's happiness still contains much material that prophetically addresses the mythical and religious aspects of life. Using a purely philosophical treatment, and emphasizing logical consistency, Spinoza transformed the ideas of the *Short Treatise* in the *Ethics*. The *Ethics* is a monumental work of a purely philosophical character, but it is presumably incomprehensible unless it is investigated in its genesis from the point of view of history, history of ideas, biography, and logical systems.

2. Worldviews are immensely varied and exhibit so many differences that one must be exceedingly careful with generalizations. The latter may be regarded most fruitfully as camouflaged research programs and working hypotheses, without sharp demarcation.
3. Any schema, *fundamentum divisionis*, that aims at a relatively precise survey and ordering of philosophical systems must be neutral in relation to the contents of the systems that are to be classified.
4. Lack of neutrality does not reduce the value of the divisions as long as it is not concealed.
5. The more a division formulation is vague, imprecise, or phrased in general terms, the less obvious is any lack of neutrality.

The Goal Is to Exhibit the Difficulty and the Possibilities of Constructing Systems

In the following, I shall try to clarify a selection of difficulties involved in formulating systems. We shall first concentrate on giving examples of "verbalized total views" or "outlooks" and call them, in short, systems. Again and again, attempts at clarification miscarry owing to lack of examples, lack of something that illustrates "the kind of animal" that we are talking about. It will soon become clear that this deficiency is not easily alleviated. On this point, too, we must capitulate to some extent.

The thought of drawing examples from textbooks on the history of philosophy immediately suggests itself. These books offer a basis for condensed representations of the systems of Aristotle, Descartes, Spinoza, Hegel, and others. Starting with pretensions of objectivity, however, one

becomes easily overwhelmed with uncertainty trying to interpret the original intent of systematicians. Furthermore, one cannot avoid the fact that even highly condensed representations become rather complicated. Therefore, I must, at this stage of my account, give up the pretension of fully understanding the total view of any other particular human being. Absolute accuracy of historical details must not be pretended. It is enough for my purpose to sketch systems.

The Function of Philosophical Debate

Adherents of a particular system tend to believe that there could exist a representation of the system that is complete in the sense that it provides the key to the system's answers to all essential questions. This may mean nothing more than that the system can provide answers to essential questions posed from within itself. The outsider will ask for a road map to the terminology of the system, to the very question formulations as they are interpreted by the system's defenders. Without guidance, however, the danger of misunderstanding is imminent.

Misunderstandings may be unraveled by philosophical debate. It turns out in practice, however, that it is very difficult to engender highly objective and professional debate on a highly objective and professional debate. Since a philosophical system is not only comprehensive but also seeks to go to the bottom of things, the individual who is strongly engaged with a system will also look through that system's spectacles and listen through its ears. This difficulty may become acute when the talk is of other systems, other principles, and other possibilities. No question formulation can remain truly neutral. Nevertheless, contributions to the discussion have presumably often had a clarifying effect at certain points. A contemporary example is Bertrand Russell's discussion with Frederick Copleston about the formulation "Everything must have a cause" (1957). Russell's system contains a principle of causation that only requires each thing or event to have a cause, whereas Copleston's principle also requires a cause for everything considered collectively (God). A system difference was clarified at this point. Another example is found in Heidegger's (1949) *Letter on Humanism*, in which he succeeds, to some extent, in clarifying a profound difference between his and Sartre's views of man.

When one attempts to judge the degree of clarity with which a system difference is delimited, one's hypotheses about the definiteness of intention and the level of discrimination within the systems will play key roles. Less potential for discrimination implies less potential for clarification. One may have a high level of discrimination but a low level of definiteness of intention, which also yields a low probability for clarification. A characteristic common to the great systematicians, however, is their formidable depth of intention, be it explicit or assumed.

If one philosopher is strongly influenced by another, the representation of his system can often be uniquely coordinated, in terms of subject matter or chapter by chapter, with the other representation. Spinoza's enumeration and characterization of "feelings" in the *Ethics* corresponds to Descartes's enumeration and characterization in *The Passions of the Soul* (1649). Their doctrines, however, are not identical. Differences appear between Spinoza's concepts of 'passiones' and 'affectus' and Descartes's 'passiones', and there are further differences in definitions and characterizations of the single "feelings." I put "feelings" in quotes because it is a purely conventional translation. Besides, the English word *feeling* cannot possibly stand for Descartes's and Spinoza's concepts.

If one seeks an exact, point-by-point comparison between the two philosophers' doctrines about particular passions, one must try to supplement their accounts with two new chapters that answer the questions "What would a Cartesian description of the kinds of phenomena that Spinoza calls *affectus* and *passiones* look like?" and "What would a Spinozistic account of the kinds of phenomena that Descartes calls *passiones* look like?"

Generally, let us assume that philosopher *A* has a doctrine about a subject that he designates *K* in the form of a series of theses that all contain the term *K*. Let us further assume that philosopher *B* also has such a theory. The system comparer is then primarily interested in four accounts. First, we must consider *A*'s doctrine about what *A* refers to by the term *K*; let us call this *A*'s doctrine about *K_A*. We also have *B*'s doctrine about what *B* designates by the term *K*, hence *B*'s doctrine about *K_B*. Next, we must consider *A*'s doctrine about *K_B* and *B*'s doctrine about *K_A*. If *A* and *B* have explicit doctrines about these subjects, the case is in principle relatively straightforward. If they do not, a comparison of *A*'s and *B*'s systems, topic by topic, will require the construction of two accounts in *A*'s and *B*'s "spirit." Only

as an improbable special case, in which A and B refer to precisely the same K , hence where $K_A = K_B$, or even ' K_A ' = ' K_B ', can the system comparer be content with only two accounts. Normally he gets to analyze four:

A 's doctrine about the topic K_A

A 's doctrine about the topic K_B

B 's doctrine about the topic K_A

B 's doctrine about the topic K_B

The person who seeks to compare two systems without accepting either of them as an adequate basis for the comparison must then himself supplement even the most thorough and original representations. A debate between living representatives of the two systems seems to be the richest source of supplementation. Such a debate, however, can seldom be realized.⁸

It is easy to provide examples of how such a profound comparison can become impossible after only a few steps of precization. For example, what exactly is the relationship between statements about "substance" in the works of Spinoza and Leibniz? If the inquirer is demanding precision, he must envisage answers involving systematic reconstructions of both Leibniz's and Spinoza's systems.

Special complications arise in connection with certain topics, such as semantics. If K_A and K_B are semantics with diverging rules for interpreting philosophical system formulations, a question arises as to whether the semantics used by the system comparer in his comparison of A 's and B 's texts is neutral in relation to K_A and K_B . The question of whether the two semantics differ from each other leads at once to difficulties when one demands an exact answer. For, if one reads K_A first and applies it to the representation of K_B , one will probably interpret K_B differently than if one had begun with K_B straightaway. In other words, insofar as K_A is a general semantics, it covers B 's text as well. From the point of view of K_A , the conclusion is perhaps that B 's text expresses a semantics K_B that contradicts K_A at points a, b, c , but not d, e, f . Correspondingly, from the point of view of K_B , the conclusion by application to A 's text is perhaps that the semantics K_A contradicts K_B , but only at points d, e, f , not a, b, c .

Spinoza has, in part, very peculiar conceptions in semantics. If one employs another semantics, one has perhaps already broken with Spinoza's sys-

tem, but how is one to avoid this situation in setting up a comparison with Leibniz? Leibniz may legitimately demand to be judged on the basis of his own semantics, not Spinoza's.

These difficulties appear when one attempts to give an account of what two systematicians separately assert about something. Of course, new difficulties arise if one goes on to ask about the truth or validity of what the two systematicians claim.

Rules for Extremely Simplified System Presentations

Given our present goal of searching for the simplest and most surveyable system constructions, we shall imagine that the presentations of two systems can be made using a pyramidal form. At the top, as the first tier, one places:

1. All propositions that are not entirely derived or justified by other propositions. These may be divided into two sets: those from which consequences are drawn and those from which no consequences are drawn. The latter possess a peculiar trait of being isolated. We will disregard them in subsequent discussions.
2. All rules that are not derived from other rules but are perhaps justified, for example, in that they are necessary for achieving a particular goal. (The concept 'rules' is construed to include imperatives.)

One class of rules may be omitted, namely rules of usage in the form of definitions. For example, Kant's *Critique of Pure Reason* (1781) contains many sentences that cannot be described as parts of the system itself. It may become essential, however, in the course of discussing various systems, to clarify the precise relationship between such sentences, and in such cases, we shall retain the sentences. Consequently, we must distinguish between statements that are part of some representation of the system and statements that are part of *any* representation of the system.

It is rather common for systematicians to introduce new terms without adequate explanation and to use old terms in new ways without the necessary clarifications. Hence, if one finds the formulation p in one system and non- p in another, the two formulations may not necessarily express different propositions; similarly, if one finds p in both systems, the two occurrences do not necessarily express any agreement.

Simplification Can Generate Misunderstandings: Stepwise Construction of More Adequate Representations

When a systematician seeks a condensed rendering of a system, it is natural for him to select basic sentences and basic rules. It is then left to the reader's imagination and experience to infer what consequences the systematician has worked out. In this chapter, our systems will follow this procedure, although it is obvious that this practice is insufficient. Since ancient times, the Epicurean and Stoic systems have been characterized by certain basic sentences. Unfortunately, many people have drawn erroneous conclusions from the fundamental premises, conclusions other than those drawn by the philosophers themselves. In spite of very different points of departure, the Stoics and the Epicureans ended up with very similar conclusions. Different foundations do not exclude essential similarities in the houses built on them.

If one seeks an immediate and fully adequate comparison of two systems, the systems will become completely unsurveyable. It must be possible, however, to carry out a comparison of systems in phases or stages.⁹ For the metasystematician, then, it is tempting to work primarily with systems that are constructed pyramidally or seem amenable to pyramidal reconstruction. Such projects are far more complex if, however, one cannot indicate basic premises and basic rules. The metasystematician must then seek a kind of listing of "terminal" sentences, which justify but are not themselves justified and which appear as isolated constituents of the system.

It is tempting to attribute a pyramidal character to systems that are unclear and not consistent enough to warrant such an interpretation. The eminent philosopher Ernst Cassirer may have succumbed to this temptation. Consider Cassirer's introductory remarks in his study of Nicholas Cusanus's philosophy:

Any study that seeks to view the philosophy of the Renaissance as a *systematic* unity must take as its point of departure the doctrines of Nicholas Cusanus . . . Cusanus is the only thinker of the period to look at all of the fundamental problems of his time from the point of view of *one* principle through which he masters them all . . . Indeed, all his thought is simply the unfolding and extension of that fundamental first principle developed in his first philosophical work, *De Docta Ignorantia*.
(Cassirer 1963: 7)

If Cassirer is correct, then Cusanus achieved the most cherished dream of many philosophical systematicians. Moreover, if Cusanus did succeed in

this, then presumably others have too—hence the research program of representing philosophies as wholes of the kind that Cassirer thinks Cusanus has realized. The great question, however, is whether Cassirer has not to some extent been deluded into confusing dream with reality. Has he actually — on the basis of the few existing Cusanus texts — accomplished a reconstruction of their contents in pointed, pyramidal form with a well-defined principle on top? Without disparagement to Cassirer, I must emphasize that he only gives suggestions to this. Implementation would require an approach with quite another depth and breadth.

If we are to begin addressing the most far-reaching problems of this work, we must, for the time being, (1) disregard the task of giving an example of a system that is especially tenable or probable. Should a simplification be necessary in order to consider strikingly erroneous statements, we must undertake that simplification without scruples. It is to systems that we shall find our way, not to a particular subclass, ‘true systems’. Furthermore, we must (2) give up formulating examples as precisely as possible. Something that might require one hundred words to express precisely can often be expressed adequately in ten words. That is what Cassirer does in his presentation of Cusanus.

Other complications also arise. When we attempt precise formulations, we become dependent on a conceptual framework, a conceptual metasytem, that is then essential to describe the system at hand. As a result, certain difficulties will arise at an inconveniently early stage in our deliberations. Of particular importance is the difficulty associated with representing a system without presupposing another system as a frame, a wider system within which the former is presented. Although the metasytem might go beyond the system only at certain points, it, nevertheless, presupposes the possibility of seeing the system from the outside, a possibility that can hardly be present for the systematician himself.

It is disappointing to limit our presentation of examples to synoptic minima, but the two alternatives generate even less satisfactory examples. The first leads to examples that are unmanageably complex for our purposes (for example, A. H. Winsnes’s otherwise satisfactory presentation of Jacques Maritain’s philosophy). The second leads to meta-researchers who fail to give examples of whole systems (for example, Everett Hall).

Tore Nordenstam (1968b) has subjected what he calls “the deductive

ideal in ethics” to a criticism in principle.¹⁰ His study is relevant to our discussion because ethics *is* an essential part of total systems and because we shall focus our deliberations on the pyramidal simplifications of systems.

Nordenstam thinks that the deductive ideal is clearly formulated by Richard Brandt in the following words:

Ideally a normative “theory” consists of a set of *general* principles analogous to the axioms of a geometrical system. That is, ideally it comprises a set of *correct* or valid *general* principles, as *brief and simple* as possible compatibly with *completeness* in the sense that these principles, when conjoined with true nonethical statements, would logically imply every ethical statement that is correct or valid. Such an ideal for a system must be our guide. (Brandt 1959: 295)

Nordenstam’s criticism seems completely justified, and it is good that Brandt in his valuable works has not let himself be led by the ideal he has set up!

Nordenstam suggests (1968b: 30) that Johan Galtung and I (1955) either had such an ideal for ethical systems or held that an ideal form of ethics must be deductive. This assertion does not hold water. In our opinion, it is a valuable undertaking to construct models for ethics or ethical systems, but this is not the goal of *descriptive* ethics. Models must necessarily be simple insofar as they are construed as descriptions. Nordenstam refers to a reconstruction of Gandhi’s political ethics in which it is explicitly stated that we are considering a model, not a description. In terms of the model, “derivations” are performed. By precization, these derivations acquire the character of deductions. In authentic systems, derivations are performed, but these can hardly be considered “deductions.” Deduction cannot be an adequate paradigm for derivation within a system. Furthermore, one must distinguish between an ethical system and ethically relevant behavior, both verbal and nonverbal.

Nordenstam correctly emphasizes the “openness” of ethics: “A satisfactory ethical system e.g. must be flexible enough to be amenable to application in new and unforeseen kinds of situations, and in order to be flexible the system must to some extent be open” (1968b: 30). Mathematical terms, on the other hand, have no flexibility (as parts of axiomatic systems). This distinction is well established. When Spinoza defines and derives deductively, this process occurs with concepts such as ‘definition’, ‘proof’, and

‘derivation’, which are *not* drawn from mathematics. To make reasonable sense of the statement quoted from Brandt, one must presume that he employs classical philosophical terminology. Even if Nordenstam’s criticism scarcely hits as hard as he intends, it is nevertheless commendable to emphasize that one is led astray by thinking that concrete ethical decisions can be deducible from more or less general ethical norms and descriptions of situations. This ideal cannot be presumed in ethics any more than it can be presumed in jurisprudence.

Thus, descriptive ethical research cannot be a search for basic ethical norms from which the rest of an ethics can be derived.

The open structure of ethics plays a role that has important methodological consequences for descriptive as well as normative ethics. Search for fundamental norms can no longer be regarded as the principal task of the descriptive analyst; his task will be to describe the whole system of moral norms, general and special, for the general norms cannot be fully understood in isolation from the special features which contribute to fixing their meanings.

(Nordenstam 1968b: 34)

This is quite clear as far as the ethics of nonviolence is concerned. A long series of more or less special norms is required to begin outlining what nonviolence involves. It is of no use to combine all ethically relevant concerns into a single basic norm “Be nonviolent!” One must proceed from rather special norms to particular individual decisions.

Knowledge of general principles in a person’s ethics does not render it superfluous to gather knowledge of his special moral decisions, just as acquaintance with the statutes of the lawbooks does not remove the need to study particular cases. Casuistry is an essential part of ethics.

(Ibid., p. 34)

Synoptic Philosophical Systems

Statement Sets That Satisfy Minimal Requirements for a System

What we, at least for the present, are searching for may be specified as follows: sets of brief, vague and ambiguous, true or false, but not completely unintelligible or vapid formulations that can act to demarcate

roughly and provisionally the basic features of a selection of systems. Such presentations cannot afford to be elaborate. We seek something that will just barely qualify as a representation of a whole system. The expression *synoptic systems* is perhaps good enough if one keeps in mind that while requirements of precision are minimal, requirements of explicitness are not.

To be philosophically all-embracing a philosophical system needs to express a position on each of the five main topics of philosophy as they are usually represented. In general, to be all-embracing, a system must: say something general and fundamental about what is (ontology), say something general about knowledge (epistemology), say something about conditions for cognitive meaningfulness (semantics), have a consistent logic, and outline an ethics. Sometimes we can manage with less, but it is not an insuperable task to get at least one formulation from each of the five fields.

Everett Hall (1960: 3) contends that the categories of systems tend toward a triadic pattern corresponding to the classification schema of the philosophical disciplines: ontology (“investigating being”), epistemology (“studying knowledge or, more broadly, any reference”), and axiology (“concerned with values”). He therefore thinks that in order to ascertain differences in the categories of systems, one ought to search for principal concepts that are used or that are presupposed when there is discussion of existence, reference, and value. Hall’s schema may, at times, provide a fruitful basis for comparison, but it will quite likely prove to be unmanageable when a philosophy’s ontology is axiological (Heinrich Rickert?) or its axiology is ontological (Spinoza?). Similarly, it is difficult to reduce logic to ontology, epistemology, or axiology.

With regard to logic as a main topic in systems, a controversial question among foundation researchers in logic is the extent to which different formal logics may exist or be constructed. W. V. O. Quine (1953), however, claims to find an example of very different formal logics or logical ontologies in connection with the extensional/intensional distinction:

Intensional and extensional ontologies are like oil and water. Admission of attributes and propositions, along with free use of quantification and other basic idioms, rules out individuals and classes. Both sorts of entities can be accommodated in the same logic only with the help of restrictions, such as Church’s, which serve to keep them from mixing; and this is very nearly a matter of two separate logics with a universe for each. (Quine 1953: 157)

The conceptual framework of a system determines which questions can and cannot be considered, but can the metasystematician know this in advance? In the last chapter of this book, I address problems of this kind; for now I shall only add a brief comment.

The following question posed by Thomas Aquinas could also arise and be posed within other Christian medieval systems, but it could hardly be posed in any modern non-Christian system: will human beings need food after the resurrection? Great difficulties arise in connection with the introduction of 'resurrection'. If they are not addressed, the question cannot even be posed. W. M. Kneale and Martha Kneale condense Thomas Aquinas's argument as follows:

[I]t would be a denial of the good ordering of God to suppose that eating will take place after the resurrection. For a man who eats without losing anything by corruption will grow to an immoderate size (*perveniet ad immoderatam quantitatem*). Indeed, if after the resurrection a man continues to eat through the whole of his unending life, we must suppose that he will grow to infinity (*oportet dicere quod corpus hominis resurgentis in infinitum augeatur*). But that, he says, is impossible. (Kneale 1962: 647)

Since Aquinas's reasoning is remote for most of us, it is comparatively easy to list presuppositions or assumptions that must be taken for granted in order for the question to arise. Here it will suffice to mention two: (1) human beings are in a certain sense resurrected after death, and (2) human beings have a body after death. Only when these presuppositions are accepted can we attempt to put forward and assess a solution. In contrast, when we are very intimate with a particular way of thinking, it is often more difficult to identify such presuppositions and assumptions. In such cases, the system appears to stand on its own two feet, accessible and comprehensible to all.

The intended totality of a total system must not be exaggerated. In the first place, philosophical systems cannot describe everything; they should recognize their inherent incompleteness. It is the "types" of things, the objectual, that systems aim at, rather than particular individual things. Even in the case of types, it is clear that not all of them are intended to be separately characterized or characterizable.

A reflection of Jaspers's and many others is worth mentioning in this connection:

A simple logical consideration shows us that nevertheless the whole and the absolute *cannot be object* for us, because as subject we would then have to stand opposite those as an object, while we as subject are then not included in the object, hence the whole is then not the whole. (Jaspers 1919: 161)

When a philosopher at a certain time or by an act of thought seeks to contemplate his total system and thereby also reconsider what the statements of the system are about (refer to, designate, denote), he cannot actually perceive the act of thinking. The dated, concrete act of thought is part of a process. His next “act of thinking” may turn the preceding one “reflectively” into an object. He objectifies what went on. If he thinks that what went on was worthy of particular philosophical attention, his system will include a characterization or theory of such acts of thought. By “such,” we mean a kind of thought, not a singular event. The system is “open” in the sense that new acts will fit in; they do not rupture the frame. The whole is not “the whole” in a certain absolute sense, but rather how one might reflect the intention of a thinker that aimed to encompass everything singular.

One is reminded of the myth that Hegel refers to about the embittered god who creates but thereafter swallows the world. In clear moments, great system builders have hardly conceived of the system idea as crudely as this. They do not seek to halt the course of events simply to prevent something, to which they did not already lay claim to, from happening. Hence, Jaspers’s misgiving does not seem to apply to *philosophical* systems in which totality is viewed as intention.

Full Explicitness Is Required of Synoptic Systems

In a certain respect, our synoptic systems are not at all minimal. We make more than minimal demands with regard to our requirements for explicitness. This is a consequence of, inter alia, the goal of establishing maximal comparability between synoptic systems. Furthermore, we require that the text be intelligible and valid without reference to biographical material, such as statements about the author’s emotional life. Pessimism in principle is not verified by reference to an author’s remarks about being terribly pessimistic and depressed. A doctrine of anxiety as a basic human attitude in principle is not verified by the author’s anxiety at one moment and then falsified by his lack of anxiety at a later moment. Systems are consid-

ered to be “detached” from the personality of the system builder. The builder may have some special basic attitudes, but they must be verbally expressed with a claim of intersubjective validity in order to be accepted as examples. Statements such as “The spiritual is higher than the corporeal” and “Any evaluation is subjective” may be accepted, but not “To *me*, the spiritual seems higher than the corporeal.”

The more deep-seated a standpoint, the more difficult it becomes to maintain its separability from the personality said to take on this standpoint. Emmanuel Mounier’s personalism reflects his way of experiencing and associating with his fellow human beings. Personalism as a system standpoint, however, is nonpersonal. Its truth conditions do not refer to the person Mounier. As soon as the detachability requirement is rescinded, however, the system loses its intersubjective, cognitive character. The task of comparison then disappears as a *philosophical* task, falling instead to biographers, psychologists, sociologists, biologists, and physicians. The nonpersonal character of the systems does not mean that the study of systems can be undertaken without any study of persons; quite the contrary. The person who wants to understand and compare must, as directly as possible, expose himself to different personalities and identify himself with their life situations. (In Indian philosophical tradition, the direct personal confrontation appears, in principle, to be presupposed. A verbalization — or an eloquent silence — must be interpreted in terms of the total teacher-disciple relationship.)

A person may change his mind about female ministers, pacifism, and much else, but can he change ways of understanding, total views, and conceptions of himself and the outside world? The question is open. Some will, from certain premises, answer yes; others, no. It seems clear to me, however, that one cannot “have a (nearly total) system” or “have a total view” the way one can “have an opinion.” One ‘is’ more than one ‘has’, in the case of deep-seated attitudes. We agree, presumably, that one person cannot be several persons, but can one person compare several systems? Which more profound ways of understanding can this person have? The question is a burning one if, like Guttorm Fløystad (1967: 2), one has the working hypothesis “that a person’s identity is closely connected with a person’s understanding, that a person in an essential sense is or is constituted by his understanding.”

When we say that Spinoza’s, Leibniz’s, and Kant’s philosophies give expression to three different personalities’ total views of existence, it is not a semantic relation that is intended but a psychological or existential one.

The system may be more or less apt and may be a more or less pedagogically and didactically adequate expression of a fundamental view or vision. Dilthey and his school sought to understand systems in terms of noncognitive expressive relations. Carnap emphasized them and declared the cognitive claims to be misapplied: the metaphysicians are bad musicians, meaning that they would have, had they been more musically gifted, expressed themselves in music. In this work, however, we take seriously the system builders' cognitive, interpersonal claims to validity. We have no grounds, in principle, for rejecting those claims. We must also acknowledge that a fundamental view or a basic vision can in principle be given expression by different cultural products — poems, philosophical systems, music, drama, and sculpture. Indeed, some individuals are creative in the worlds of several media (Nietzsche, for example).

Three Examples of Synoptic Total Systems

Formulation Set F1

1. Everything that exists can be experienced.
2. The ultimate source of all knowledge is experience.
3. Two statements that directly contradict each other cannot both be true.
4. All cognitively meaningful statements are statements about something that can be experienced.
5. Choose the strategy of action that gives the greatest possible happiness to the greatest possible number.

The first two sentences, ontological and epistemological, are meant to exemplify possible sentences in an “empirical” system. The third sentence, which exemplifies a logic, is merely a formulation of the principle of contradiction. The fourth sentence provides an empirical criterion of meaning (of the form that is associated with logical empiricism). The fifth sentence, a formulation of the highest norm for deciding actions, introduces a utilitarian ethics.

The catchword *empiricism* fits the formulation set F1. The following set, F2, is intended to exemplify “materialistic” systems. The list is not intended to fulfill the minimal requirements in every detail.

DESCRIPTIONS OF MAXIMALLY COMPREHENSIVE PERSPECTIVES

Formulation Set F2

1. Of nothing, nothing becomes.
2. Everything that exists is corporeal.
3. Of the bodies, some are composites of bodies; the rest are that which all the other composites result from. These, the “atoms,” are indivisible and unchangeable.
4. Atoms have no properties apart from size, shape, and weight.
5. The soul is a body that is distributed in the whole human body.
6. The human body covers the soul and leads sensations to it.
7. Any pleasure is a good thing; any pain is an evil.
8. Spiritual pleasure is better than bodily pleasure.
9. The virtues can be reduced to wisdom.
10. Wisdom teaches that enduring pleasure can be obtained only by nobleness and justice.
11. The basis of all cognition is sense experience.
12. Sense experience is true in itself.
13. The immediate objects of cognition are sense pictures, not things in themselves.
14. Criterion of truth: confirmation through sense experience.
15. Two statements that directly contradict each other cannot both be true.
16. All cognitively meaningful statements are statements about something that can be experienced.

The set F2 is a freely condensed rendering of Friedrich Lange's (1866) classical representation of Epicurus's system. The first four sentences may, roughly classified, be said to provide an ontology; sentences 5 and 6 outline a philosophical psychology; 7 through 10 outline an ethics and art of living; and 11 through 14 represent an epistemology. Logic and semantics (sentences 15 and 16) have been added by borrowing from the formulation set F1.

F2 is not an entirely satisfactory example of a minimal system because some of the sentences can hardly be construed as fundamental, for example, numbers 8 and 9.

Formulation Set F3

1. Dialectics

- 1.1. That which exists, nature, is a continuous, uniform whole, where things are organically interconnected.
- 1.2. Nature is in a state of incessant movement and change.
- 1.3. Qualitative changes do not occur by degrees, but quickly and suddenly; not accidentally, but according to law.

2. Materialism

- 2.1. Nature is material; the varied phenomena are different forms of matter in motion.
- 2.2. Matter has objective reality outside the human consciousness and independent from it.
- 2.3. Our knowledge of the laws of nature is reliable, and there are no unknowable things.
- 2.4. Things in nature have internal oppositions.

3. Addendum

- 3.1. Matter can move only in space and time. Thought is a product of matter, specifically the brain. A thought without a brain is absurd.
- 3.2. The function of consciousness is to give reflections (“copies”) of that which exists (including the regularities).
- 3.3. There is no god or world spirit or idea; the material, observable world is the only one that exists.

Parts 1 and 2 provide a simplified version of a summary of dialectical materialism given by Joseph Stalin (1940). Stalin provides examples of “internal oppositions” (also, in Hegelian fashion, called “internal contradictions”); thus, opposites are “+ and –, differential and integral, action and reaction.” I have added part 3 myself to provide a more comprehensive picture.

Simple Comparisons: Conflicting Systems and Criteria of Totality

The comparison of systems may be relatively unproblematic. This is the case with F2 and F3. Nevertheless, the comparison of F2 (“Epicurus’s system”) with F3 (“dialectical materialism”) presupposes, *inter alia*, elucidation of three key issues:

1. How are ‘nature’, ‘world’, ‘matter’, and ‘mind’ related within dialectical materialism? If matter is outside consciousness, then consciousness is outside matter, and thus consciousness is not material. Is consciousness without material being? What is the ontological status of consciousness?
2. What is the relation between *everything* as the word is used in sentence 2 in Epicurus’s system (“Everything that exists is corporeal”) and *world* in the addendum to F3?
3. What is the ontological status of “sensations” and “sense pictures” in Epicurus’s system? What is their relation to “corporeality,” to “the soul,” and to the “consciousness” of dialectical materialism?

F2 and F3 are related systems insofar as they take up the same questions in the same, or closely related, terminology. The solutions are similar. The systems can, to a great extent, be compared and discussed in a common terminology. Especially important is the absence of differences in logic and (explicit) methodology. Even a very small difference in basic methodological norms can render comparison impossible.

It is easy to see that the formulations of systematizers after Aristotle are to some degree determined in terms of supposed (hypothetical) contrasts to the formulations of other systematizers. They no longer start from scratch but find their bearings in relation to a rich philosophical tradition. In the case of Thales and other very early thinkers in occidental philosophy, it is also evident that they contrast themselves to earlier or contemporary personalities and opinions, but the picture they present is not as well clarified philosophically.

We now need an example of a system that is formulated in direct opposition to another one. We select a “rationalistic” system contravening the “empirical” system F1.

Formulation Set F4

1. Everything that exists falls into two classes: that which can be experienced and that which cannot be experienced.
2. The ultimate source of all knowledge is rational thought.
3. Two statements that directly contradict each other cannot both be true.
4. Any noncontradictory statement has cognitive meaning.
5. Truth is found in the last instance by logical analysis; the thoughts must be made clear and distinct.
6. The good and right way of living is the one that obeys the law of reason.

To begin with, we accept that F1 and F4 express different doctrines, and that the differences, at least in some points, are such that F1 and F4 cannot both be asserted together without contradiction. Therefore, we accept the assumption that F1 and F4 are incompatible. Our assumption may be explicated by listing the vocabularies in F1 and F4 and postulating that the same words have the same meanings, hence that *experience* in F1 means the same as *experience* in F4, *knowledge* in F1 means the same as *knowledge* in F4, and so on. Such an approach presupposes a large set of intersubjective synonymy hypotheses. Substantial difficulties arise when one attempts to verify each synonymy hypothesis.

In such a comparison of F1 and F4 we will also require a definition and criterion for incompatibility, that is, a logic that includes a principle of contradiction. What is suggested of logic in F1 and F4—the principle of contradiction—is common to both systems. However, F1 and F4 have incompatible methodologies: the comparer's conclusion that "F1 and F4 have incompatible methodologies" is intelligible and testable only in terms of a particular logic and methodology. The question immediately arises as to whether this logic and methodology of comparison is neutral in relation to the logic and methodology of F1 and F4. Here we begin to approach the special difficulties that must arise if methodologically incompatible systems are intended to be complete.

If two systems have incompatible methodologies, the partial or total system that is to serve as a frame of reference for a comparison will have to have a methodology that is compatible with either one or the other. By

adopting one alternative as a metasytem at the expense of the other, one takes a stand against the latter even before any comparison has begun. In making such choices, the system comparer cannot be totally “unbiased.”

More generally, if two systems are incomplete, the differences between them may be such that a metasytem does not have to side with one or the other, because the two systems may be entirely compatible from a logical point of view. In the case of two total systems, however, the situation is different. In this case, both systems must say something, implicitly or explicitly, about every subject that is taken up. The existence of a logical incompatibility implies that the metasytem takes a stance on one side or the other. *Tertium non datur*—there is no third option. If one system asserts *A* and the other not-*A*, it is of no avail to search for a synthesis or a neutral position. If it is asserted that the first system covers one aspect of existence and the second another, then both have failed to satisfy the pretensions of total systems, because each system was intended to cover everything.

What do we mean by saying that a system is or is not complete and total or that it expresses a total view? We shall try to identify some criteria by beginning quite vaguely:

1. A system is total if (but not only if) it comprises an ontology, epistemology, logic, semantics, philosophy of language, methodology, value theory, ethics, moral philosophy, philosophy of law, philosophy of education, political philosophy, philosophy of history, history of philosophy, and philosophy of nature.
2. A system is total if it comprises all categories.
3. A system is total if in principle no statement is irrelevant in relation to the propositions of the system.

One way of characterizing total systems is to say that if *x* is intended to be total, then nothing can be irrelevant for its validity and nothing can fall outside its categories. Stephen C. Pepper calls such systems “world hypotheses.”

Among the variety of objects which we find in the world are hypotheses about the world itself. For the most part these are contained in books such as Plato’s *Republic*, Aristotle’s *Metaphysics*, Lucretius’ *On the Nature of Things*, Descartes’s *Meditations*, Spinoza’s *Ethics*, Hume’s *Treatise*, Kant’s three *Critiques*, Dewey’s *Experience and Nature*, Whitehead’s *Process and Reality*. . . . These un-

restricted products of knowledge I am calling world hypotheses, and the peculiarity of world hypotheses is that they cannot reject anything as irrelevant.
(Pepper 1942: 1)

In practice, and at least to begin with, criterion 1 is the best of the three, but then, of course, its formulation must be made more precise. One must also determine what may be subtracted from the suggested philosophical disciplines without infringing on the totality of a system. An important point is that one must avoid inserting whole encyclopedias into the total systems. There can be no place for science or technology. The relation expression “*x* comprises *y*” must be made precise, perhaps in the direction of “*x* has the explicit or implicit consequence *y*.” Another quite different sense is also of interest, “*x* has *y* as a (genuine) part.”

Finally, for the sake of comparison, we offer condensed presentations of the more traditional type that highlight the main ideas in Hegel’s and Schopenhauer’s systems. The presentations demonstrate a tendency to use terms that are clarified only within the systems (esoteric elucidation). From the metasytematic point of view, this is the great weakness of the more traditional presentations; they do not lead into systems but rather presuppose that we are already inside them. If one uses ordinary interpretations of words in reading such a presentation, it often becomes meaningless or erroneous.

Hegel’s System: Traditional Condensation

1. Appearances for us¹¹ are not only in our consciousness, but also in themselves.
2. The source of their being is the general divine idea (*die allgemeine göttliche Idee*).
3. Absolute reason reveals itself in nature and spirit, and is the substance of both.
4. Consideration of the realization of absolute reason in the development of history forms the dialectical method, which reproduces in the consciousness of the thinking being the self-movement of the content thought.
5. Absolute reason externalizes itself in nature and returns from its difference to itself in spirit (*enttäusert sich und kehrt ihrem Anderssein zurück*).

DESCRIPTIONS OF MAXIMALLY COMPREHENSIVE PERSPECTIVES

6. The realization of absolute reason is threefold: in the abstract elements of thought, in nature, and in spirit; as thesis, antithesis, and synthesis.
7. Freedom is the idea that has returned from its difference to itself, the spirit.

This condensed version of Hegel's system can only be of value to those who are already acquainted with a series of difficult terms that admit a variety of interpretations.

*Schopenhauer's System: Traditional Condensation*¹²

1. The only reality that is independent of our ideas is the will.
2. The will is not an object, but an urge and a desire to be.
3. Any object is merely some subject's idea, only phenomenon.
4. An urge cannot be fully satisfied, hence the presence of suffering.
5. The highest norm for a conscious being is to kill the urge.
6. Compassion alleviates suffering, asceticism kills the urge.
7. Nirvana is the happiest, final stage of asceticism.

If we proceed on the assumption that Hegel and Schopenhauer intend to create total systems, the first great task will be to distill out the common topics. The first sentence in the Hegel condensation says something about appearances for us (*Erscheinungen für uns*). What does Schopenhauer have to say about the subject that Hegel intends by the expression *Erscheinungen für uns*? In the third sentence of the Schopenhauer condensation, the word *phenomenon* occurs. There is reason to believe that by *phenomenon* Schopenhauer means something not far from Hegel's *Erscheinung für uns*. By successive reformulation it is possible (yet not without a certain arbitrariness) to establish that the two systems among other things have a common topic, the phenomena, and that they also contain some incompatible statements about this topic. From the Hegel condensation we deduce: any phenomenon is not only in our consciousness, but also in itself. From the Schopenhauer condensation we deduce, after "translation" to Hegelian terminology: for one phenomenon it is the case that it is not only in consciousness, but also in itself, namely the will.

In an analogous way, the metasytematizer will seek to delimit other common topics. It will soon become evident, however, that there are topics that only one of the philosophers appears to have taken up in his writings. In such cases, we must resort to extrapolation. Even after daring extrapolation, we must still expect the persistence of many topics on which only one of the philosophers can be said to have expressed his view directly or indirectly. This lopsidedness, however, cannot be taken as evidence that the systems are not total in their intention.

Standpoint Combinations: Extrapolation

According to the judgment of posterity, only a few philosophers have produced truly outstanding work in all the principal areas of human, system-creating thought. Others have made outstanding contributions in more restricted areas: Descartes in epistemology and the theory of science, but not in ethics; Nietzsche in ethics and the theory of values, but not in ontology; Frege in logic and semantics, but hardly in any other field. These facts make it necessary, in order to obtain a culturally rich and interesting set of systems, to proceed tentatively when combining doctrines that have less scope or depth into total systems.

From the perspective of psychology, sociology, and the history of ideas, syntheses constructed by combining doctrines from different thinkers, such as Aristotle and Frege, may be regarded as completely “impossible.” Anthropologists might deny that any thinker could arrive at such syntheses and at the same time believe in them. From a systematic-cognitive standpoint, however, these “artificial” combinations may be of great value because they exercise our logical imagination and undermine our tendency to believe that the range of cognitively possible standpoint combinations is limited to the few truly comprehensive systems that occur in history.

Let us, for example, focus on the writings of philosophers who are most broadly reviewed in textbooks on the history of philosophy. If we make a list of one hundred questions that two or more of these philosophers have answered, it turns out that certain answers in their systems hang together. For example, answer R₁ to question Q₁ is more frequently combined with R₅ to Q₂ than with R₆ to Q₂. In other words, there exist positive and nega-

tive correlations between the answers when they are classified according to similarity and dissimilarity.

Since we do not, in general, find that different philosophers give exactly identical answers to any definite question, we must make an effort to classify answers that fall into categories such as “very nearly the same answer,” “not very nearly the same answer,” “answers that are very nearly the negation of another one,” “answers that neither very nearly negate nor very nearly affirm a certain other answer,” and so on. When we say, for example, that Pierre Gassendi, Thomas Hobbes, and Julian Offray de La Mettrie are materialists, we have tacitly understood that they give nearly the same answers to nearly identical questions. If, however, we add that Gilbert Ryle and Ludwig Wittgenstein are also materialists, either our requirements for similar answers (and the feasible questions) are considerably weaker, or we must reformulate the questions relevant to “materialism” so that they are more abstract or incomplete.

Most philosophical topics are so intricate and the methods of justification so imperfect that the assumption of “cognitive affinity” should be regarded as no more than a working hypothesis. By “cognitive affinity” I refer to a relation between *A* and *C* such that if *A* is tenable, then probably *C* is also; or if *A* is untenable, then *C* is also probably untenable. (If both relations hold, it is perhaps appropriate to speak of “mutual cognitive affinity.” The relationship is formal-logical if, for example, *C* follows from *A* in a formal-logical sense.)

Attempts to check answers for cognitive affinity will most frequently result in a weakening of the hypothesis or in a realization that it is untestable, at least with the methods currently at our disposal. The conclusion will often be that the hypothesis about cognitive affinity is useless except as a working program. This usually gives us more prejudices than fresh insights, and it applies perhaps to the majority of hypotheses that seem to be accepted implicitly by the authors of histories of philosophy. A series of clever special investigations in the history of philosophy concludes that opinion *C*, which has commonly been supposed to be accepted by philosopher *F*, is not *F*’s opinion. He has, on the contrary, meant *D*. The assumption that he meant *C* has been determined, for example, by the fact that he has the opinion *A* (and not *B*) about another topic, and one frequently assumes that *C* follows from *A*.

For example, one of Paul Natorp's main theses in his *Die Ethika des Demokritos* (1893) is that Democritus does not mean that pleasure is the goal (*télos*). While it is the case, he writes, that Democritus holds that pleasure and displeasure are the criteria (*tá kritéria*), it does not follow from this that pleasure becomes the goal. Natorp denies that Democritus sets pleasure as the unconditional goal, a position long since accepted by many historians of philosophy; but he shows, by distinguishing criterion from goal, that he can nevertheless make sense of Democritus's doctrine. Furthermore, Democritus, in his ontology, is a consistent materialist and a determinist (in a certain sense). Does he not, therefore, believe that both positive feelings and beneficial material things are most worthy of being coveted?

On the basis of standpoints for which there is no evidence in Democritus, but by association with certain other philosophers who may also be said to be consistent materialists and determinists, one might answer yes. In the sentences preserved from Democritus, however, the philosopher does not emphasize the material, but rather the mental benefits (*tá psychés agathá*). Is he not inconsistent then? Are the fragments spurious? Natorp thinks Democritus need not be inconsistent. Democritus's theory of values emphasizes psychic values, and since his theory of atoms does not exclude the condition that psychic atoms are important causally for one's happiness, the ontology does not prevent him from thinking so.

Natorp continues, and finds a very close connection between Democritus's epistemology and his doctrine that the soul's state of calm is more important than isolated sensations of pleasure. Pleasure and displeasure are ontologically on a par with color and taste; hence they exist only in people's speech and opinion (*nómo*), not in reality. Natorp finds a cognitive affinity, and perhaps even something close to a formal-logical, necessary connection, between Democritus's epistemology and his ethical doctrine. Here, however, Natorp seems to be skating on thin ice. He may be explicating a possibility that stands historically with other possibilities, but if these possibilities are compared with each other, the conclusion would have to be one of *isosthenia* (a state of suspended judgment). The alternatives are equally probable or improbable; there are equally strong reasons pro and contra.

It may well be that from a psychological, sociological, culture-historical, or idea-historical point of view it is unreasonable to imagine an answer of the kind *A* to question *x* combined with an answer of the kind *D* to

question *y*. Precisely because psychological and other kinds of knowledge about man are essential for understanding the opinions of philosophers, we can argue that the maximal variation of psychological and other factors will result in many more combinations of opinions than have so far been represented. One may point to a wide variety of psychological, or at least generally culture-historical (for example, science-historical), factors that have been common to many and perhaps all of the philosophers most frequently cited in history of philosophy textbooks. From a cognitive standpoint, such factors are fortuitous; they do not affect the tenability of arguments or their weight as evidence.

We conclude, therefore, that if one is predominantly interested in the elucidation of standpoints—exactly *what* the individual philosophers meant, rather than *why* they meant it (what motives they had)—then one must critically scrutinize all inferences of the following kind: since he means *A*, which he explicitly states, then he means *C*, which he does not explicitly state. Many of these inferences will turn out to be untenable.

Furthermore, if one is predominantly interested in the internal relations and relative tenability of possible philosophical positions (here equal to noncontradictory positions), it is desirable in principle to consider all and-connections that may exist between the various theses of the philosophers and then examine and evaluate the non-occurrent combinations (including negations). Hence, if *A*, *C*, and *E* occur combined in history, as do *B*, *D*, and *F*, then we should consider the combinations (*A*&*B*, *A*&*C*, . . . , *A*&*F*; *B*&*C*, *B*&*D*, . . . , *E*&*F*; *A*&*B*&*C*, *A*&*B*&*D*, . . . , *D*&*E*&*F*, . . . , *A*&*B*&*C*&*D*&*E*&*F*) and also the negations (*A*&-*B*, -*A*&*B*, -*A*&-*B*; *A*&-*C*, -*A*&*C*, -*A*&-*C*, and so on).

On the whole, however, system-philosophical combinatorics is poorly developed. Interest has presumably been focused until now on views proclaimed by great personalities; but the intellectual pleasure of peeking into worlds with great internal order and harmony is not diminished just because no one has yet believed in their existence.

How can systems vary demonstrably with respect to concepts such as 'meaningful', 'analytic', and 'a priori'? One way to understand this is to take these concepts as points of departure; then their occurrences (and traditional translations and equivalents) are compared. A survey of precizations is developed as one clarifies, step-by-step, differences in usage. For these differences in usage one then postulates conceptual differences, inasmuch as one

assumes that conceptual characteristics vary in parallel with the differences in usage. Some such differences were clarified by Nordenstam (1972).

The precondition is to have a sufficiently broad common reference frame so that occurrence analysis and precization analysis can be given a common description. Furthermore, the words employed in the formulations of conceptual characteristics must also be shared. Closely considered, this turns out to be a radical requirement, because the less two systems have in common, the more difficult it becomes to map uses and conceptual differences in a tolerably neutral and complete way.

One difficulty in principle arises because the level of depth of intention (and the level of discrimination) cannot be assumed to be infinitely high. The history of the words used in classical logic and modern debate makes it probable that strong precizations become more or less transintentional. Hence, one gets constructed system differences rather than purely descriptive ones. Regarding the limits of precization, Anders Wedberg's (1958–66) offers helpful points of departure for a thorough study. He characterizes 'meaningful', 'analytic', and 'a priori' as "exceedingly problematic distinctions" (1958–66, vol. 3: 247). It is doubtful if any consistent transintentional precizations are sufficiently close to the original, vague uses regarded as plausible, even with very modest requirements for "plausibility."

The limits of precization inhibit system variability. If we view these precizations as branches of the philosophical family tree, they become small and stunted. Why? Perhaps because the imagination of researchers is hampered by the thought that only one concept can be the correct one and that it is to be found in the vicinity of concepts that have already been suggested in the philosophical literature.

Philosophical combinatorics is poorly developed because many imagine that truth is approached from only one direction, or, alternatively, that one searches for truth along certain lines and is impatient with others. Combinatorics presupposes a kind of *epoché* (withholding of assent or dissent in matters in which conflicting and equally plausible explanations exist) in relation to all attempts at solutions.

Introduction to Systems and System Comparison

Historiography of philosophical systems as total views involves problems of theoretical kinds that are rarely discussed. An attempt is often made to

introduce a system, for instance, writing a chapter on it and comparing it with a couple of others. It is sometimes uncritically assumed that the historiographer can start as a neutral being without presuppositions of relevance to the system he is going to introduce. This is scarcely possible because a philosophy of history is part of the system, dependent on epistemological and methodological views. Perhaps we must acknowledge that the introducer implicitly depends on his own system.

An introduction to a system may be conceived as leading from one system to another or from systemlessness to a system. In either case the introduction begins in territory foreign to the system being introduced. If the reader is already familiar with the system, no cognitive introduction is required. Instead, the introduction may take the form of a pedagogical arrangement or a condensed, explicit representation. In this section, however, our reader is presumed to be, cognitively speaking, an outsider, one who has no prior acquaintance with the system.

Presenting a system may seem easy as long as one does not perceive one's presentation as number ($n + 1$) in the series. A researcher, however, cannot ignore previous attempts at presentation, and a study of these prior presentations will illustrate how different persons, generations, traditions, and movements have presented contrasting pictures of one and the same philosopher. The primary aim of the current system introducer, then, is to give a presentation that does not attribute to his predecessors thoughts that are alien or foreign to their philosophy—at least not in such a way that their own intentions become obviously distorted.

Nonetheless, a researcher who is fully aware of these traps *in abstracto* may still fall into them when it comes time for concrete formulation of a representation. Our main concern now will be to examine one more or less direct interpretation. The example concerns the Spinoza researcher Harold Foster Hallett, who begins the preface to his *Benedict de Spinoza: The Elements of His Philosophy* with some weighty sentences of which I shall quote the first two:

Probably no philosopher of repute has been worse served by his expositors and commentators than Spinoza. Monist, pantheist, atheist, acosmist, ethical nihilist, mechanist, mystic, and even dialectical materialist, are among the epithets more or less commonly used to describe and pigeon-hole a doctrine which, nevertheless, though neglected, misinterpreted, and deplored, has never been despised as a mere curiosity of philosophical history. (Hallett 1957: vii)

The modern Spinoza researcher faces a difficult task:

[I]t is not easy for the modern mind, steeped as it is in empiricistic modes of thought subsequently developed, to take up the intellectual standpoint from which alone the thought of Spinoza is intelligible. Yet, of course, until this has been accomplished, exposition and criticism alike are futile.

(Ibid., p. vii)

Hallett is, of course, correct in demanding that one not apply current natural science conceptions of causal connections to Spinoza's texts. The texts must be understood as much as possible in the context of the traditions that were a part of Spinoza's life, traditions that were dramatically different from "ours" today. Is this possible?

As I see it, it is impossible in practice for us today to see the world as Spinoza did and to find out exactly what he meant by his words, and to express this in the vocabularies of our time. Those who try very seriously through years of intense study arrive at differences of great interest. Exactly what did Spinoza mean by the term *causa* in the *Ethics*? What is the relation of the meaning of *causa* to the meaning of *ratio*?

When the goal is to search for more authentic interpretations of Spinoza, however, Harry Wolfson's comprehensive idea-historical *Philosophy of Spinoza* (1934) almost always proves helpful. Wolfson approaches Spinoza's concepts "cause of itself" and "essence that involves existence" through a study of Descartes, Anselm, Crescas, Avicenna, Averroes, Maimonides, Porphyry, and of course Aristotle. His approach may sound daunting, but it turns out that this long detour to direct interpretation permits one to ascribe to Spinoza a couple of very simple, but nevertheless fundamental ideas.

In the first place, God must be such that he has no cause. If God were caused by something, the very existence of God would then depend upon this causing agent, and this agent could at any point take over God's role. God would then be subject to the discretion of another entity.

Between this first thought and the next, that God is his own cause, one may imagine a broad realm of possible interconnections. Wolfson's presentation, however, if it is adequate, permits one to assume that there are no such intermediate links at all. That God is the cause of himself needs for Spinoza to have been nothing but a manner of speaking, another way of expressing what is a relatively simple thought: that God himself cannot have any cause.

A third thought arises when we compare this idea of God's causality to the idea of the "accidental" existence of objects of experience. For example, although we can give an exact description of a thing's nature, this does not necessarily imply that the thing must actually exist. Things must be seen as links in chains of causes or conditions. We assume that for a thing to exist, certain conditions must be realized. We must see the thing as a link in a chain of causes or conditions. We can reformulate Spinoza's concept of God in a new way: God's existence is independent from such conditions that must be realized. Hence, God exists purely as a result of his own nature. In short, God's nature hinges on existence itself; the nature of things, however, does not even necessitate their existence. They may be conceived to exist just as well as they may be conceived not to exist.

Wolfson's contribution here is not so much that he actually puts forward such an interpretation, but that he demonstrates its plausibility through his comprehensive review of historical material.

Hallett's basic formula for the essence-existence relationship is introduced as follows:

Finally, the relations and distinction of essence and existence in 'God or Nature', i.e. of the infinite indeterminate primordial potency-in-act and its infinitely determinate enactment or actuality, serve to determine Spinoza's account of the divine causality as *free* and as *immanent*, and being both free and immanent, as *eternal*. With 'God or Nature' essence and existence are at once identical and distinct as the indeterminate is identical with and distinct from its exhaustive determinations—a complex relation which is generally expressed by Spinoza in the form: 'The essence of God *involves* existence'.

(Hallett 1957: 27)

Some of the expressions that Hallett uses here and elsewhere to bring the modern student to an elementary understanding of Spinoza are neither Spinoza's nor the modern student's. Hallett interposes a third system between the two. A third system in itself is entirely reasonable, but his mediating system fails didactically. This failure owes, for example, to the expressions "potency-in-act" and "identical and distinct." The basic concept 'action' is introduced by the phrase "by 'action' is meant the *actualization of potency*" (ibid., p. 5).

"Cause of itself" is mainly explained by the following third-system passage:

[S]ubstance actualizes and manifests itself in the mode—it is the active cause, and the mode its enacted effect. Self-actualizing and self-manifesting substance is thus essentially real and intelligible as ‘cause of itself’, i.e. as creating its own actuality, exhaustively and eternally. The primordial Real is substance as infinite indeterminate potency eternally actualized as exhaustively determinate mode, and is thus self-existent, self-manifest, *causa sui*.

(Ibid., p. 12)

Ordinarily, we do not notice interposed third systems, but Hallett’s is so forbiddingly expressed that we notice what happens, and take umbrage. Hallett states that his book “is devised as a monitory preparation for deeper study of the philosophy of Spinoza” (1957: viii). He does not, however, mention that he presupposes a third system.

I will not deny that this third system has potential for bringing the modern student closer to Spinoza, but the system needs to be introduced before it can bring such help. As far as I can detect, Hallett has not been sufficiently concerned about this issue. A final evaluation of his introduction to Spinoza, via this third system, must therefore be postponed until this introduction to the auxiliary system is at hand. Hence, we must employ a fourth system. Or does Hallett have in mind those modern students who are already familiar with Thomas Aquinas?

In the case of “cause of itself” and “essence that involves existence,” Wolfson provides a shortcut, since he succeeds in giving the expressions a sense, at least on the level of everyday understanding, that is relatively easy for the contemporary student to grasp. A third system is therefore not necessary because the expressions employed are not likely to be perceived as outlandish.

A philosophical author who works with his system his entire life, as Spinoza did, and who constantly makes changes, tends to write in the form of an introduction intended for himself. Indeed, such an author can never be entirely inside his system. The author feels that he is on his way into something, into something that he both dimly perceives and incompletely grasps. The system is created on the way; it is always more of an intended than an actualized entity, a regulative idea, something not yet existing—a fiction in Hans Vaihinger’s terminology (1911). It is not merely a question of giving something already existing a coherent, written form; the purpose is not merely autodidactic. Spinoza’s *Ethics* was, after all, gradually modi-

fied from an essentially introductory style with numerous appeals to the reader, to a form in which the system was more self-contained—a ship in which all gangways were cleared away.

In writings by systematicians, written partly in an introductory style, one must recognize that a terminology, a conceptual structure, and a set of propositions and rules are employed. Moreover, these formulations may only gradually be ascribed the senses they are to have in the system. Furthermore, in the course of the presentation, the formulations may be criticized and even eliminated. The reader must attribute an outsider's meanings to the introductory formulations. He is then led in the direction of the system, and step-by-step the meaning is altered.

In principle, it should be possible for the author to let nothing be affected by what is presupposed or used in the first chapters of the introduction. Only when the introduction is completed, when the reader has been led into the system, can he assess what had a merely didactic function and what was to become an essential element of the system.

In a dialogue between a representative of the system and an outsider, the same introductory process must take place. If the representative of the system remains both in the system and in the dialogue, the result can easily be an esoteric style in the derogatory sense: the listeners who are already in the system can nod approvingly, while the outsiders have to find their own way. This approach seems to be employed more frequently in the Dionysian-Pythagorean milieus than in the logically and empirically minded philosophical milieus. Such an approach excels when the representatives of the system (1) avoid statements that they must retract when a more advanced step is reached and (2) can permit themselves to regard everything from the point of view of the system, even questions from outsiders. When the system approaches being total, outsiders' attempts to enter the system will be interpreted in the light of the author's views of the system representatives, so much so that they cannot find any way to accommodate an "antagonist" by going beyond their own system.

The purpose of these remarks is, in part, to lay the groundwork for examining the philosophical literature that focuses on evaluating the border between didactics and systematics in the writings of individual authors. A question arises as to whether Hume's formulations might have a purely didactic component. For example, Cassirer criticizes or comments on Hume's doctrine of the impermanence of the "I" by saying that Hume, in his own

formulations, appears to accept its permanence (by virtue of acting as the author of each sentence?). Might such a didactic element be precisely what Cassirer bases his criticism on?

Hume compares the mind to a scene in which perceptions appear and disappear without any other “I” than the scene. But how can Hume himself reflect on his perceptions?

How can the I in the form of pure “stage” for the perceptions, at the same time step out of its passivity and autonomously intervene in the play of the perceptions? How can we instead of merely receiving the content “reflect” on it and thereby put a new stamp on it? (Cassirer 1906–07, vol. 2: 386)

Hume’s response might be that Cassirer’s description of the “I” is not adequate. Hume’s way of writing gives an introduction. The picture employed, that of the stage on which perceptions appear, is didactically determined. As to Hume’s text about perceptions, this picture changes nothing about those perceptions.

How Hume would contrive to achieve a consistent answer, I dare not surmise. The essential point is that when Hume speaks about perceptions, and when he says that he has never come across any “I” outside the succession of perceptions, one cannot immediately conclude that there is an inconsistency. One should first consider whether Hume’s statements might be given an interpretation within the system or be defined as didactic statements, signposts for traveling into the system. The formulation “I have never found the philosophers’ stone” may be ascribed cognitive meaning without introducing a concept ‘I’ that makes the “I” something permanent. In a way, it is more reasonable that one will be less likely to find the philosophers’ stone as one’s “I” becomes less durable.

Cassirer may perhaps be blamed for having applied a neo-Kantian perspective to the “I” too early in his presentation of Hume. If one’s account is to be cross-systematic, one must try to give each system every possibility of maintaining consistency and totality. Whether a philosophically committed person can manage this is an open question; however, without commitment it makes no sense even to try to understand a single system.

Both Hume’s and Kant’s systems are pyramidally formed. From certain basic principles, rules, and methods the “rest” of the system emerges. Since Hume and Kant do not start with the same principles, rules, and methods, they do not place the same topics on the apex of the pyramid. The result is,

for example, that part of what Kant places on top is far down in Hume's pyramid. If we, perhaps unconsciously, use Kant's system (in weakened form) in our representation of Hume, we will see Kant as more profound than Hume. For we notice that Hume places certain things (for example, the concept of the stream of perceptions) at the top, but Kant places them somewhat further down in the pyramid. On the other hand, we do not notice that Hume goes beyond some of Kant's top-level concepts and sentences (for example, the existence of synthetic a priori sentences in Newton's physics).

The preceding is not meant as a criticism of Cassirer, but rather as an example of the difficulty or impossibility of creating an idea-historical crossing from one philosophical total view to another. Either one relies on the fiction that identical words have the same meaning for different philosophers, or one goes deeper than the purely verbal and accepts that the same words can have different meanings. In the first case, one obtains an easily intelligible but fictitious continuity or identity of problems. In the second case, resorting to the nonverbal, the comparability tends to cease. In other words, either one is forced up to the surface of the system, or one remains in the deep but employs a system in which both philosophies are forced together, with the result that, at best, only one will fit adequately.

The discontinuous transition from intimate understanding of one system to intimate understanding of another can be systematized by imagining a reader who is familiar with Hume's texts without knowing Hume's name, and is then given an English text of Kant to read but fails to identify Kant as the author.

Let a represent the first sentence of the text by Kant. The reader, H , interprets it in the light of his entire reading of Hume (including nonphilosophical reading, we presume). The interpretation may be symbolized thus:

$$(1) \text{Int}_H(a)$$

Where, in accordance with the symbolization outline in my *Interpretation and Preciseness* (1953: 115; a revised edition appears as volume 1 of the *Selected Works of Arne Naess*), (1) refers to the interpretation of sentence a made by person H , a reader familiar with Hume. It is naturally a Hume-systematic interpretation.

Upon reading assertion a , the reader is taken aback because it seems obviously erroneous or inconsistent with earlier texts. Let us assume that the reader guesses that a is written by another philosophical author and that he therefore does not take the “inconsistency” as an objection to the interpretation. He then reads the next sentence, b , and adopts the following interpretation:

$$(2) \text{Int}_H(b, S:a, \text{Int}_H(a))$$

Where (2) refers to a Hume-systematic interpretation of b in the context S with elements a and the interpretation $\text{Int}_H(a)$.

This proposition, however, clearly seems wrong or inconsistent with a , so the reader attempts other interpretations. He ultimately embraces another interpretation of b , which, nevertheless, recognizes that he was aware of and considered (2):

$$(3) \text{Int}_H(b, S:a, \text{Int}_H(a), \text{Int}_H(b, S:a, \text{Int}_H(a)))$$

which can be rewritten in shorthand form as:

$$(3a) \text{Int}_H(b, S:(b, S:a))$$

This proposition, while not obviously erroneous or inconsistent, still seems incomparable with the Hume texts. The reader now seeks a better understanding of a in light of (3) and finds a new interpretation of a :

$$(4) \text{Int}_H(a, S:b, \text{Int}_H(b, S:a, \text{Int}_H(a)), \text{Int}_H(b, S:a, \text{Int}_H(a), \text{Int}_H(b, S:a, \text{Int}_H(a))))$$

This situation can also be abbreviated to avoid making it completely unsurveyable:

$$(4a) \text{Int}_H(a, S:(b, S:(b, S:a)))$$

We now have a new interpretation of a in light of the “accepted” interpretation of b . This new interpretation of a may engender a rethinking of the

DESCRIPTIONS OF MAXIMALLY COMPREHENSIVE PERSPECTIVES

“accepted” interpretation of $b, (3)$, yielding an endless recursive process or a validation of (3) .

These symbolizations refer to readings of only two sentences of Kant’s text. Unless “intuition,” with attendant certainty, rapidly brings the reader further, the interpretation complications become stultifying. On the other hand, one has no guarantee that the “intuitions” increase one’s understanding of Kant’s intentions. In any case, the eventual understanding of the Kantian view in question results from a very complex process that is never entirely free of the influence of Hume and that, perhaps, may never be completed.

What I have tried to convey, roughly formulated, is the problematic character of writing an exposition of a philosophical system in general and of an all-embracing one in particular and, furthermore, the even more problematic character of a cognitively acceptable description of the movement from one system to another, whether as systems or as part of a history of ideas. The problematic character of all this, however, does not necessarily impinge on the present and future cultural value of philosophical systems.

II

Comparison of Different Total Views

Common Sense, Ordinary Language, and *Lebenswelt*

When comparing different systems, one must first consider all explicit definitions. All defined words (all definienda) are omitted and replaced by their definientia. For example, when a philosopher employs the word *substance*, but defines it, there is every reason to replace the word with the definition in comparisons, because other philosophers can easily mean something different by the word; likewise, if a philosopher has theses about empiricism, but defines *empiricism*. Of course, the definitions will deviate substantially according to the positive or negative attitude of a philosopher. At the outset, one does not assume that words from the vernacular are used in any special sense that has to be taken into account in order to understand the system. (Exceptions may occur, however. Some philosophers—Heidegger, for example—apparently use everyday words in unusual ways.) In accordance with this, one also assumes that the comparer's everyday speech is neutral in relation to the systems compared.

A great problem can now be formulated as follows: is it feasible to make everyday words and sentences more precise so that a conceptual system results? If it is, all systems would contain a common core. However one varied the systems, the variations would never affect the implicit concept world of the vernacular.

An obvious possibility is to identify the supposed conceptual and propositional system of everyday speech with a commonsense world picture. The philosopher's task, then, is to seek a kind of clarification and harmonization of the commonsense world image, not to *correct* the commonsense world at any point. The notions of a common, changeless, universal human *Lebenswelt* also belong here ("the fourth Husserl," and others).

COMPARISON OF DIFFERENT TOTAL VIEWS

On the basis of, inter alia, empirical, semantic investigations, I have concluded that words and sentences of the vernacular in everyday use have a depth-of-intention contour that does not permit one to make intra-intentional and plausible precisations in such a way that specific systems of concepts and propositions emerge. The depth of intention in a philosophically relevant direction is insufficient.

Precisely this characteristic—that everyday speech is philosophically amorphous—makes it suitable for system comparison in its first phase. It allows for histories of philosophy; the historian can converse in everyday speech about philosophers and their different theories. The speech is not philosophically adequate, but then this cannot be the historian's goal either.

One of the most interesting attempts at catching everyday speech in philosophically relevant conceptual networks was carried out by Ottar Dahl (1956) in his investigation of historians' use of the word *because* and certain other related words and expressions. His efforts to catch such everyday speech in this case were stymied, especially so in the case of top historians—those who do not mix philosophy or other subjects into their historiography. The use of *because* among historians is neutral in relation to concepts of cause and doctrines of historical causality of different systems.

Our conclusion, as suggested, is that words and sentences of everyday speech have a depth-of-intention contour that precludes the emergence of systems of concepts and propositions from plausible interpretation. This conclusion contains an essential restriction: that it be a question of words and sentences of the vernacular in everyday use. In other words, a vague but important demarcation of a field of situations or use is indicated. By precisizing the conclusion in certain directions, we can, owing to this demarcation, push it into the analytic. It is indeed in those directions that we intend to go.

There is no possibility of delimiting an everyday language that can be specified and rendered independent from a kind of function or use that is one of "everyday" speech. In everyday speech, certain words and sentences are used in certain ways. The *same* words and sentences are used in other ways in other kinds of situations. The vocabulary of everyday speech is common to the systems, but this does not imply that there are certain concepts or propositions that are common. When we eliminate all technical words and technical sentences from a system formulation, we have a system that is expressed in the vocabulary of everyday speech, but we do *not* get a variant of common sense, a system within the "concept world" of daily life,

in other words, a *Lebenswelt* philosophy. David Hume and George Berkeley, for example, attached importance to avoiding technical terminology, but their philosophies do not therefore stand closer to common sense or *Lebenswelt*. Richard Avenarius employed an enormous contrivance of technical words and sentences, but he is at least as close to common sense or the *Lebenswelt*. In fact, he is much closer, I believe.

As a system is developed, the words and sentences of the vernacular acquire more definite senses in relation to a technical conceptual framework. The vocabulary of everyday speech is drawn into the system; it becomes precizable—more exactly, sender-precizable—for the system builder in a philosophically relevant direction. For one who seeks to “dwell” in the system—for example, to see life as much as possible *sub specie aeternitatis*—everyday speech is also infected. In a certain sense, “daily life” ceases to be daily life anymore for the philosopher, but he can make himself fully understood in daily life through everyday speech.

If two philosophers who have radically different systems put forward a series of mutually comports sentences in the vocabulary of the vernacular, this cannot be taken as an expression of mutually comports propositions. The difference in propositional content is difficult to express. The system builder has not defined the words of everyday speech.

In view of this, it is not strange that the system builder finds it difficult to be understood and that it sometimes seems to him that neither critics nor adherents understand him. Edmund Husserl has stated, “All the criticism that I know of has missed the basic idea in my phenomenology by so much that it has not been hit at all, in spite of the quotation of my words” (Fink 1934: Husserl’s foreword).

In a letter to Karl Löwith in 1937, Husserl adds:

Maybe you understand that Scheler, Heidegger and thus all previous “pupils” have failed to understand the true and deep meaning in the phenomenology—in the transcendental phenomenology as the only possible one—and how much that depends on this meaning. (Husserl 1959: 50)

Buytendijk says in his assessment of Husserl’s importance for modern psychology:

One would be mistaken if one considered the rapidly growing frequency one can observe of the words *phenomenon* and *phenomenology*, *intentionality* and *act*,

COMPARISON OF DIFFERENT TOTAL VIEWS

Lebenswelt, put in parenthesis, essence-view and intuition in psychological treatises as a clear sign of an immediate and decisive influence from Husserl's side on the development of psychological thinking and methodological principles.
(van Breda and Taminiaux 1959: 78)

For the person comparing two systems, the preceding is of great importance, because the composer himself ordinarily seeks to describe the systems precisely in the vernacular. He seeks to express the systems "neutrally," hence either in everyday speech (so he thinks) or in a third system-language.

The vernacular used by a systematician who speaks within the system, and hence is not concerned with leading someone into the system, is *not* neutral. Words and sentences have meanings that can be precized within the frame of the system. They are not precized in the systematic account, but they may be made precise. They are intersubjectively precizable, but not sender-precizable for the systematician himself. When leading others into his system, the systematician can precize what he means for them.¹ To himself he cannot precize, however, if he is completely clear in his system and the system is fully constructed.

Comparison and Evaluation on the Basis of Adequate Presentation

Human beings are evaluated by each other. We accept this or that declaration as an expression of person *A*'s opinion of person *B*, regardless of how little *A* knows about *B* and regardless of how superficial and indirect the connection between *A* and *B*. We do not say, "You have not evaluated *B*, because you do not truly know *B*, the whole person *B*. You have merely seen *B* mentioned in a newspaper and you evaluated something that you more or less associate with *B*'s name. It is not *B* you have formed an opinion about, it is a fictitious person."

Usually we do not demand that a comparison and evaluation be performed on an adequate basis. The opinions of persons *A* and *C* about person *B* are independent of how *A* and *C* define *B* or indicate *B*'s essence (in Spinoza's terminology). In daily life I can say, "I do not really know *B*, but I am entirely opposed to the ordinary opinion of him." Of *him*. As if one had been in contact with the whole person and reacted to the whole person!

If we now conclude that we almost never compare and evaluate—we only think we do—then there is little left of what we usually do. Suspicion arises as to whether it is not merely misunderstandings (mostly philosophical) that have led us to criticize the modes of expression of daily life. From this viewpoint we are tempted to postulate that we *can* compare, and that when *A* and *C* disagree about *B*, it is precisely about *B*—an identical, common object—that they differ. That *A* and *C* do not agree at any point about the representation of who *B* is, apart from his name and elements of his appearance, cannot have any relevance.

If this commonsense attitude is applied to philosophical systems, we are liberated from the problem of whether presentation and evaluation are possible—since they are frequently done, they are of course also possible. Everything that *is*, is possible. In Spinoza's own system, precisely *his* standpoints have been represented and evaluated in different ways owing to differences in the people who encountered them.² Whether or not Spinoza's system is total makes no difference, according to such an attitude; one expresses one's own opinion and likes or dislikes about Spinoza. The depth of intention does not need to be greater than that of a mouse that nibbles on books by various authors and also has its own likes and dislikes, based on their paper and binding—a basis sometimes also employed by the highest mammals.

When we realize that this is the case and always has been the case, we become incapable perhaps of imagining clearly what it might mean for things to be different. How could clear but unsatisfiable criteria of representation, comparison, and evaluation have originated? Most likely thought ran amok. It turned to idling. The evidence of this is that when such comparisons and evaluations are consistently carried out, they frequently in practice lead to unacceptable conclusions—conclusions one will not accept.

It is healthy to keep in mind this commonsense or naturalistic attitude when the speculative and reflective consciousness leads to results that are peculiar or paradoxical, to put it mildly. An attitude, however, has no direct application to a way of thinking. If one's train of thought forms a chain—if *A* then *B*, if *B* then *C*—it may be criticized by evaluating premises or deductions. Attitudes do not enter into the picture. Regarding the premises, many things are relevant—correspondence with observation and so on. For the rules of inference, a more limited, logico-semantic kind of criticism

COMPARISON OF DIFFERENT TOTAL VIEWS

is relevant. That the conclusion, *C*, seems paradoxical or absurd in a sense other than (logically) self-contradictory or false cannot be employed as an intellectual criticism of the train of thought.

If the conclusion regarding deliberations about systems is that no one has accomplished a comparison of *total* systems, it is not necessarily a valid counterargument to say that adequate comparisons have actually been undertaken. We must object to premises and rules of inference, including the semantic rules, not the least of which are the definitions of *comparison*. If the definition of comparison is such that it requires something other than, or much more than, the demands that are generated from precization in at least one plausible direction, then one can perhaps on a semantic basis construct arguments against its feasibility.

If we are to list requirements for the adequate comparison of systems, we can learn from the basis of comparison employed in responsible art criticism. A critic must hear the entire piece of music — know the score, be present, and be seated in a location that is satisfactory acoustically during the entire performance. With regard to paintings, the critic must see the entire painting. Here, then, it is not the same as when personalities are compared in daily life.

To present Spinoza's philosophy to an audience (for example, oneself) requires more than just copying and rendering it, in Spinoza's words, one by one. It involves a communication of the thought-content, at least in its essentials. Hence, if one of Spinoza's main points is that "Everything that is, is either in itself or in something else," the representation must impart precisely Spinoza's intent regarding this point. If one does not know about the formulation, does not understand it, or does not include it in the presentation, then the presentation will not be adequate. If one does not include any other main point either, it might be proper to say that the presentation "is really (actually, strictly speaking, indeed) not a presentation of *Spinoza*." In examinations in philosophy in which a student "mistakes" one philosopher for another, we say that he did not "give a representation of Locke, even if he explicitly speaks about Locke all the time."

From the preceding, it emerges that an adequate representation of a philosopher's doctrine must be based on hypotheses about how the philosopher himself understands his individual sentences and their connections. An evaluation of a system must be presupposed to be an assessment of the thought-content intended by the system's author. Hence, when comparing

two systems, the comparer must collate two sets of thoughts. It may then *perhaps* turn out that the two doctrines that one assumes answer the same questions actually have no common reference points, meaning that they, strictly speaking, have no single object or theme in common.

I have emphasized “perhaps” because it is likely that the fewer points of contact there are, the greater the differences the metasytematician must catch in his net. Against this, we might object that the two philosophers may well have ways of viewing things that differ only in small but characteristic nuances. The world and self may have a somewhat different coloring for the two, or a somewhat different distance. To one of them, everything may seem nearer than to the other, and the proximity is not perceived as a property of the relation between things (entities), but as an essential characteristic of the things. If something like this can be the case, the two philosophers perhaps have no object in common, since the distance accent differs and applies to everything.

Even if different philosophers use the same words, we must be careful not to assume or postulate the identity of a basic concept or object just because it is expressed or designated by the same word. The question of identity is something that must be demonstrated independently of the similarity of words. *Being* and *existence* are examples of words whose different usage by various philosophers has led to a belief that the philosophers make statements about exactly the same thing. The statement “God is, but does not exist,” for example, is interesting because it directly employs the subtly different meanings of these words.

Discussions about the concept ‘substance’ sometimes conceal the belief that one is referring to a common fundamental concept or an object that has been common to philosophers for centuries. Do Descartes’s, Spinoza’s, and Leibniz’s so-called doctrines about substance have any identical object in common? Or is the occurrence of the word *substantia* confused with the occurrence of a common concept ‘substantia’ or with a common entity called substance?

It is essential to note that the occurrence of a common word, *substantia*, does not imply common use. The word can have common functions, such as expressing a fundamental ontological concept, but such functional similarities may serve as much to mark differences as to mark conceptual similarities. An assumption that a common use is at hand is a type of synonymy hypothesis, and it must be treated as a hypothesis.

COMPARISON OF DIFFERENT TOTAL VIEWS

That Spinoza and Descartes do not have the same substance-concept is the most plausible working hypothesis in view of their own definitions of *substantia*. Their definitions are very different. Descartes defines it as “Everything in which there resides immediately, as in a subject, or by means of which there exists anything that we perceive — for example, any property, quality, or attribute of which we have a real idea, is called a *Substance*” (Descartes 1931, vol 2: 53). Or more precisely, “Any thing, *A*, in which something, *B*, inheres immediately, as in an object — or by virtue of which something, *C*, that we perceive, exists — and this, *B* or *C*, is a property or quality or attribute of which we have a real idea, any such thing is called substance.”

Spinoza’s definition, on the other hand, is: “By substance I understand that which is in itself and is conceived by itself: that is that whose concept does not need the concept of another thing, of which it must be formed” (Spinoza 1914, part 1: 1).

When the definiens formulations of two thinkers are as different as they are in this case, the presumption is that they express different concepts. The burden of proof lies with the one who claims that the concepts are identical. Furthermore, it is easy to believe that the term *substance* in these cases denotes something different. This assumption, however, may be a mistake, because two different concepts may have the same extension.

Evidence that Descartes and Spinoza have different concepts for substance emerges with the first suppositions that they derive.³ Descartes concludes that the soul (*mens*) is a substance, while Spinoza finds that it is not a substance at all, but a *modus*. We can accept both derivations as long as we also accept that the two philosophers have different concepts for substance. If we hold that Descartes and Spinoza have the same concept (if so, which one?), it becomes difficult not to reject at least one of the derivations as erroneous. Hence, we must say to either Descartes or Spinoza: “The soul in the concept of substance that you hold, but have not defined yourself, is assigned an ontological status opposite the one you say it has. You have unfortunately made an error in your derivation. If we correct it, you will see that your philosophy is actually somewhat different from what you have thought.”

The preceding account of the difference between Descartes’s and Spinoza’s systems with respect to the possible concept or object expressed or denoted by the common word *substantia* is written within the frame of a se-

mantics in which the Semiotic Triangle is employed. The account might also have been written in a somewhat different frame. The more an account is made precise, however, the more a metasystematician must make use of a system and, furthermore, the more one's conclusions cannot be identical under variations of this system. Hence, the investigations with points of departure in Descartes's and Spinoza's texts will themselves be perceived differently when the semantic system is varied.⁴

For the metasystematician, it is easier to compare two systems based on the assumption that the two systems have at least one fundamental concept in common, rather than that they have no concepts in common. The latter, however, does not make his work impossible. It is much worse if the systems do not have a single rule in common and hence have no rules of inference—implicit or explicit—in common. This is particularly difficult since the comparer himself has a set of rules whose terms he must use to understand the authors: that is, he must ascribe and acknowledge understandability to them in terms of his own basic rules.

The distinction between the three classes—adequate representations, inadequate representations, and nonrepresentations—can, of course, be subjected to a critical examination. One may object to setting the requirements of adequacy too high in relation to a plausible development and sharpening of the requirements of daily life, but the concepts I have suggested can hardly be challenged in that respect. One must distinguish between principle demands of adequacy on the one hand, and practical requirements in the spirit of compromise on the other hand. The latter cannot replace the former without misconstruing the goal of representations.

Comparison with Respect to Truth-Value

When we compare two standpoints with regard to truth-value, we may definitively conclude that both are true, that both are false, or that one is true and the other false. (The result may be definite without necessarily being *certain*.) If the standpoints are not comprehensive or not very deep (merely scratch the surface), the result of the comparison may be justified by referring to a set of statements that we immediately accept as true. Such statements then acquire the character of standards and paradigms. The standpoints are confronted with the paradigm set and accepted or rejected depending on whether they agree or disagree with that set.

COMPARISON OF DIFFERENT TOTAL VIEWS

Already in such simple comparisons, then, it is obvious that a “third system,” a basis for comparison, a *tertium comparationis*, is implied. It provides the standard of truth or falsehood against which each of the statements is judged.

Is it different with measurements of length? Apparently not. Instead of quantitatively comparing the length of two lions by means of a yardstick (as a third “system”), we can put the two lions side by side and see directly which one is longer. The standpoints that “Lion *A* is longer than *B*” and “Lion *B* is longer than *A*” are compared simply by looking at the lions. If the lions are put in their position by competing hunters, a certain minimum of apparatus may be necessary. For example, we might need to place some straight sticks perpendicularly to the longitudinal direction of the lions, so as to establish a “zero point.” We then need to establish a set of rules with regard to the manner of estimating the longer lion, a criterion for deciding that “*x* is longer than *y*.” The criterion is not a part of zoology; it is brought in from outside.

If we arrive at contrary results, we must either examine the statements of the hunters for self-contradiction, or perform another measurement that then constitutes the standard, the frame of reference. Hence, a system is created if there is not already one at hand.

We may conclude, then, that the isolated comparison of two statements with respect to truth-value is not possible, if by “isolated comparison” we mean that no third statement at all is introduced and accepted in advance as true. Furthermore, a methodology is presupposed whereby one can *find* truth-value, and possibly probability, tenability, or other qualities in case one finds that truth cannot be found immediately.

Limits of Precision and Depth in Comparison

Let us imagine that a serious debate develops in which one person, Peter, justifies his standpoint by claiming that it is tested in his way, and another person, Paul, justifies his own standpoint by saying that it is tested in another way, Paul’s way. Peter justifies his point in his way, and Paul justifies his in his own way, and both reject the other’s justification.

The chains of justification come to an end, and if there is disagreement about the deepest links, the question of truth must remain open. The chains may perhaps be continued, and the participants may change some of

their opinions, but insofar as there is disagreement about the underlying theoretical principles, the question of truth is undecided. The deeper a dissension lies, the more slender the basis for a conclusion other than "undecided."

Something else also becomes apparent when standpoints are justified deeply: it becomes more and more difficult for the opponents to understand each other. Peter says, for example, that in the final analysis such and such is clearly evident. Paul says that something contrary is clearly evident. Then they offer long lists of evidence justifying their claims. Different philosophers have great difficulty understanding each other when the discussion takes such a turn. The result is that not only is the truth-value of their standpoint questioned, but also the very meaning of it. For example, one party does not understand *exactly* what the other means by "point at," "show that," "explain," "mean that," "believe that," "reply to," and so on.

Deep differences arise when it appears that Peter and Paul adhere to different concepts of truth. Peter thinks that truth and falsehood are something different from what Paul says they are. This may affect all statements they make, including anything they say about what truth and falsehood are.

I have spoken until now about Peter and Paul and the possibility that their world pictures are so different that comparisons of truth-value and meaning from their respective standpoints are not or cannot be undertaken. For each party, the other's system is false or meaningless. From the standpoint of a third party, however, the "Ashlad," this conclusion is highly suspect. Does the Ashlad understand both Peter and Paul? Does he have a system doctrine that does not presuppose either Peter's or Paul's special premises, but instead is neutral and wide enough to formulate the opinions of the other two? If the Ashlad does manage this, it is natural for him to say that Peter and Paul are each right in their own way. Their systems are relative, and thus truth is relative. This, however, leads us into a blind alley.

Two reasonable possibilities exist. Either the Ashlad's thinking goes deeper and thereby makes Peter's and Paul's opinions comparable with respect to truth and meaning, or the talk of relative truth no longer applies in this case. Peter and Paul have gone to the bottom and represent (nearly) total systems; in this case, the Ashlad cannot stand outside.

It is pertinent to ask how it is possible to speak about the difficulties of Peter and Paul. The answer lies in the vagueness of everyday speech and our

COMPARISON OF DIFFERENT TOTAL VIEWS

limited depth of intention. We do not need to have definite, sharp thoughts to obtain a feeling of understanding, but if we try to think as precisely as possible, we become more and more dependent on increasing both our depth and our breadth. In such attempts, it becomes clear that the Ashlad cannot describe what happens with Peter and Paul without speaking in terms of a definite system himself. His neutrality ceases, and with it the decidability of the questions of truth and meaning that Peter and Paul cannot decide. The Ashlad himself becomes hopelessly involved and has merely complicated the matter: we are left with an undecided debate among three parties instead of two.

III

Metaphysics as Exposure of Presuppositions

Collingwood's Concept of Presuppositions

The points of view of English philosopher and historian Robin G. Collingwood in relation to metaphysics warrant consideration.¹ Under the designation "metaphysics," he classifies Aristotle's first philosophy (*prima philosophia*), or doctrine of principles, and the traditions issuing from it, as well as the great system formations, regardless of their affinity to Aristotle.

Implicit in Collingwood's writings are (at least) three concepts of metaphysics (cf. Rynin 1964: 330):

1. " x is person P 's metaphysics," which means that " x is the set of (absolute) presuppositions in P 's systematic thought."
2. " x is P 's metaphysics," which means that " x is a clarification and representation of P 's presuppositions within P 's own systematic thought."
3. " x is a metaphysics," which means that " x is a text that presents what person P_1 hypothetically assumes to be person P_2 's presuppositions in P_2 's systematic thought."

Collingwood's concept of 'absolute presupposition' is interesting and valuable regardless of how one intends to connect or separate metaphysics and system theory.

David Rynin gives a condensed, nine-point characterization of presuppositions as Collingwood construes them. The following are his first six points (Rynin 1964: 308):

1. They lie at the base of systematic thought in the sense that by virtue of their logical efficacy they and only they enable its questions to arise.

METAPHYSICS AS EXPOSURE OF PRESUPPOSITIONS

2. They are not themselves answers to questions.
3. They are expressed in the form of declarative sentences, thus giving rise to the feeling or belief that they are genuine propositions, true or false.
4. They are not verifiable or falsifiable.
5. They cannot be undermined by experience, being the yardsticks (in some society) by which experience is judged.
6. They are not true or false.

According to Collingwood, “Every event has a cause” is a presupposition in relation to Kant’s system, but not in relation to all later systems. Other examples of presuppositions include “There is a God” and “Space is infinite.” Within statements such as these that articulate presuppositions, we can find concepts about ‘God’, ‘existence’, and ‘cause’ that function as basic concepts or categories of the entire system. They alone permit questions within the system to be posed and answered (Rynin 1964: 310–11). Presuppositions, however, also give rise to new questions; they generate questions, but they are not themselves replies to (living) questions posed by the systematizer himself. This is true by definition for Collingwood’s concept of presupposition (Rynin 1964: 310, 315, 328). Presuppositions are not statements in the ordinary sense, but rather expressions of the deepest faith—they are symbols that seek to express something that lies beyond complete understanding.

A person may be mistaken as to what his own presuppositions are (Collingwood 1940: 31). In other words, if *F* is a presupposition in relation to system *S*, then *F* is not part of *S*. Hence, one cannot speak as if there are presuppositions within or in a system. This point, however, is questionable and is discussed on pages 76–79.

Collingwood gives a concrete example of a presupposition in relation to a discipline. A physician, for example, determines the cause of a disease, and Collingwood asks why it must have a cause. The physician replies, “Because everything that happens has a cause,” and he adds, “That is something we take for granted in my work. We do not question it. We do not try to prove it. It is not something that someone has discovered, the way it is with bacteria or the circulatory system of the blood. It is something that we simply take for granted.” Collingwood responds, “He tells you that it is a presupposition in the branch of science in which he works” (Rynin 1964: 329).

The physician regards himself as a member of a specific profession with limited tasks. It is not difficult for him to understand that in other professions there may be other presuppositions, and he can, without any particular difficulty, articulate some of his own. In the case of philosophical systems, the situation is entirely different, since they encompass everything.

According to Collingwood, clarification of general presuppositions is of central concern not only for occidental, but for all cultures. The fall of Rome was, in the final analysis, attributable to the fact that the Romans lost metaphysical clarity, that is, clarity about the implicit presuppositions of the Roman civilization (Rynin 1964: 309).

A theory on the variation and constancy of civilizations seems to be implicit in Collingwood's concept of presupposition: If *A* is an absolute presupposition in relation to civilization *S*, then another presupposition *B* cannot later (or earlier) be so, if *B* is logically prior to *A*. If *B* is "There is one and only one space," *B* permits the question "Is this space finite or infinite?" If, on the other hand, the question "Is there one and only one space?" is posed, it is, according to point 3 (Collingwood 1940: 152), no longer posed in the civilization *S*, even if the persons involved might conceivably be the same. A new civilization *T* would be emerging, according to Collingwood's definitions in Rynin's versions. Likewise, if civilization *T* had "There exists one and only one space" as a reply to "Is there one and only one space?" and "Something exists" was an absolute presupposition, but a question in the manner of Gorgias was asked, "Does something exist?" then civilization *T* would be exceeded.

Not All Sets of Presuppositions Are Equally Acceptable

According to Collingwood, not all sets of presuppositions are equally acceptable. Conceptual tensions arise within a system that depend on the nature of the system's presuppositions. These tensions, which do not have to do with truth or falsity, may be of varying strengths, and if they become too strong, the system breaks down. This is the subject of some of the last points in Rynin's condensed characterization of Collingwood's views on presuppositions (1964: 309):

7. In a given system of thought they occur in clusters, no single absolute presupposition suffices to do the job.

8. To the extent that the presuppositions are not comparable, i.e., cannot be conjointly held without giving rise to inconsistencies and confusions of thought, they generate strains that, if sufficiently great, eventually lead to the collapse or alteration of that system.
9. Some clusters of absolute presuppositions exhibit fewer strains than others and are consequently better able to do their job of underpinning systematic thought.

Two Concepts of Presuppositions: One in Cognitive Daylight and One in the Twilight Area

Rynin is well on his way to accepting Collingwood's concept and doctrine in spite of being a logical positivist. To quote Rynin, "[I] am, I think, the only living logical positivist, or at least the only one who, as far as I know, is willing to be called this—provided that *I* explain what it means to be so" (1964: 331).

Rynin's strongly positive attitude is valuable and remarkable because Collingwood's doctrine is easy to attack, and Rynin is one of America's most merciless philosophical critics. Here I will not undertake a general analysis, but rather seek to clarify some sensitive questions.

It appears from Collingwood's examples that a philosopher can have a well-articulated presupposition expressed by an ordinary kind of formulation such as "Every event has a cause." Spinoza's first axiom, "All [things] which are, are in themselves or in something else," is a good example of a principle that is well articulated as a formulation and that the systematician has not at any point sought to go outside, as far as can be judged on the basis of our sources. The distinction "in itself/in something else" stands for Spinoza at the absolute limit of thought. It seems that the axiom does not emerge as a result of pondering the question "*Are* all things in themselves or in something else?" or other questions that the axiom then answers in good order. (With regard to Kant's "Every event has a cause," the case is more complicated since, at least when reading Hume, he must indeed have posed questions that "lie underneath" this formulation.)

For principles of the kind to which Spinoza's first axiom belongs, it is hardly the case that the author—or more correctly, the creator—is not convinced of their truth. They are true and self-evident for the system builder. If presuppositions are by definition beyond truth and falsehood,

and one uses the creator's intention as a base, then these kinds of principles are not presuppositions in Collingwood's sense. It seems that one needs two concepts of presuppositions, one on a level with what I have called basic sentences or basic rules *in* a system, and one that might be located just outside (before, under, or behind) the system, in a cognitive twilight area. Whether the latter can at all be constituted as a (tolerably precise) concept is something that I shall refrain from making a final decision about, but it is well worth the effort.

"All is connected," "There must be a God," "The world is evil," "Man is a nothingness," "I must not give up," "The individual human being has infinite value"—such exclamations or maxims are employed by many and can perhaps on particularly serious occasions exemplify the level on which the presuppositions that are "deeper" than the clearly formulated principles lie. It involves a matter of pronouncements with an expressive function approaching the artistic-expressionistic one. One is involved with all one's heart and has no energy left for a cool analysis. The pronouncements function as justifications in the sense that they put an end to further questioning or doubt. They cut short the discussion and clear the ground for getting on with life. One can then "proceed." Therefore, it seems almost quaint if one has misgivings, analyzes a bit, and tempers oneself: "*Almost* everything is connected," "Maybe there must be a God," "The world is almost or completely evil," "One might think man is almost a nothingness," and so on.

In the case of such exclamations it is obvious that the question of truth is not always relevant. "*Is it true* that there must be a God?" This question seems premature. Indeed, we *must* presume that there is a God! Alternatively, one enters the twilight area: "Yes, because otherwise everything becomes meaningless." If one then asks, "Why shouldn't everything be meaningless? Perhaps everything *is* meaningless?" and continues along these lines, one will most likely dig too deeply. The person who says "There must be a God" is no longer concerned; the questions are not living issues for him. The justification that is given for having to presume that there is a God is not an attempt to justify the truth of the "postulate." A compelling motive is indicated. To the one who does not feel it as a compelling motive, there is nothing more to say.

If we proceed from nonphilosophers or amateur philosophers to the great system builders, we are likely to retrieve such presuppositions from the twilight area. Some are explicit, but most are implicit.

In Spinoza's system, an identity seems to be presupposed between existence (as a human being) and perception (cognition), so that by realizing (knowing) something, one in a way "gets into" the things themselves—a form of spiritual occupation. Historians in this connection often quote the famous seventh proposition in the second part of Spinoza's *Ethics*: "The order and connection of ideas is the same as [is *identical* with?] the order and connection of things." This proposition, however, has been derived from something else *within* the system and does not concern the identity that is assumed "prior" to the system.

Collingwood points to a consideration of the basic concepts as a means to trace presuppositions. In the case of the twilight zone, this is clearly important. We can in a meaningful way ask about the justification of the distinction between God and non-God. What is it that justifies such a distinction? Spinoza presupposes that the reader of the *Ethics* comprehends the distinction between being in itself (*in se*) and being in something else (*in alio*). It is indeed possible that he has not allowed for the prospect that someone who knows the history of philosophy as he does will declare "I see no difference!" or "I cannot comprehend the difference!" Here is perhaps a basic structure in Spinoza's thought (founded, in this case, in a tradition in which he himself stands) that for him is "prior" to the system, in the sense that he uses it without asking about the justification for doing so.

Could Spinoza, however, have understood a question posed to him about the justification of the distinction? It is difficult to see why this would not be the case. We may imagine the question being posed by followers of Ockham, or another tradition in part coterminous with Spinoza. We leave open the issue of whether there are common presuppositions of such a kind that the one who uses them will in principle not be able to understand them without thereby rejecting something that is asserted in the system. If Spinoza had been able to give an introduction and justification of the distinction "in itself"/"in something else," what he justified in terms of it might have been grafted to the system as it now exists. The pyramid has acquired a new step.

Principles Within a System and Presuppositions of a System

If we re-examine Rynin's condensed characterization of presuppositions (pp. 83–86), we find that it suggests two concepts: principles within a system and presuppositions in relation to a system.

The category of principles applies to point 1, but we must add the proviso that it must be identified as basic to the systematic thought *within the system* it concerns. Point 2 applies similarly, but here too “within the system” should be added. Point 3 falls into the “presupposition” category, that is, sentences that are not principles but are nevertheless in the cognitive twilight area. To point 4 we must add “in relation to the system.” It is doubtful but not impossible that a principle in one system is a verified or falsified sentence within another, more comprehensive or profound system. To point 5 we must also add “in the system.” Point 6 applies to presuppositions and must perhaps be supplied with an indication of a relation: “They are not perceived as true or false (by the one who presupposes).” It may happen that one person’s presupposition is another person’s principle—for example, “We *must* believe that there is a God.” Points 7 through 9 are characteristic of Collingwood’s system theory. The question of their tenability provides a program for philosophical research.

These additions, which make Rynin’s characterization more explicit relative to a specific system, may well do Collingwood an injustice. In some places it seems as if he also has nonrelative concepts in mind: that it is a question of “absolutely absolute presuppositions” and not merely “absolute presuppositions relative to a system.” It makes sense for one who considers various historically existing systems to ask, Are there principles and presuppositions common to them all, and are there any that must exist in relation to any conceivable system, indeed to any form of systematic thinking at all? Are there presuppositions that make systematic thinking *möglich überhaupt* (feasible in general)?—are there necessary conditions of such a cognitive kind that they may be called presuppositions?

Collingwood’s main contribution lies in his studies of historically occurring systems and in his appeal for serious study of these systems—with the aim of understanding the foundation of one’s own civilization. He wants a “Know thyself!” approach to be applied to the study of civilizations—but a “Know thyself from within!” approach, not a study from the outside, such as a causal or natural science investigation. For Collingwood, this study is possible only by seeing one’s own system in contrast with that of others.

As a historian, Collingwood has no use for a philosophical system concept that emphasizes explicitness. Nor can he have any particular predilection for the special systems of outstanding, atypical personalities such as

Aristotle and Spinoza. It is, therefore, not to be expected that his system theory is adequate for the study of philosophical systems. True enough, the definitional statement here (pp. 11–12) can be made to cover Collingwood's system, but attempts to make it more precise will go in a direction philosophically that is not a historically important one. The main application of Collingwood's doctrine should be sought by historians and cultural anthropologists.

Collingwood's Metaphysics Presupposes a Supersystem

As long as we are sure that the systems created by others are inferior with respect to the breadth and depth of their conceptual structure, or at least not superior, then Collingwood's metaphysical program is sensible for exposing the presuppositions of all the other systems. In this case, one takes for granted that one's own methodology is entirely sufficient for comprehending another system. One will not take seriously the possibility that the other system might have a methodology, a doctrine of interpretation, exposition, textual analysis, observation, verification, and justification that in part conflicts with one's own. One will seek to clarify and explain all difficulties in terms of one's own system and will apply one's own methodology to the foreign system. If that system says something that does not agree with one's own, it is noted as a weakness, a lack of clarity, or an error in that other system.

Collingwood's idea for comparing the relative intensity of tensions within different systems can seem realistic, however, only if we imagine ourselves as supersystematicians with superior instruments of study. We must see clearly the highest goals of the others, but still perceive them as groping and stumbling. We must see how they stretch their arms out to reach what we have already attained, while recognizing that they will not quite succeed in achieving it. Others are led by conflicting wishes; their assumptions lead to internal contradictions; and they struggle to become clear about what happens to them, but they can never reach full clarity.

Throughout this, the system comparer does not consider the fact that he himself operates with a certain methodology and a concept of truth. If the latter requires something to be true, that it correspond with reality, his own conceptions of what can be real immediately become relevant. For example, if a system accepts the objective validity of norms, it must be possi-

ble that there is a reality of norms and a “world of values.” Do intersubjective accessibility and temporal permanence belong to that which one must require of reality? Or is a Heraclitean reality conceivable, in which everything is in flux—without a logos in the background?

To conclude that “This proposition (perhaps this principle) does not correspond with reality,” one must hold (at least implicitly) a theory about what signs indicate that a proposition agrees with reality. Does one rely on evidence criteria, sense experience criteria, or logical coherence? What about the applications of the criteria by a particular person—taking into account his own specific background—to decide whether the proposition agrees or not? What kind of “personology” can we presuppose that a person brings?

Already in the indefinite plurality of possible truth-concepts and criteria lies a source of misinterpretation of the other's system. If the other's system goes deeper and also *presupposes* another methodology, one has no chance to comprehend, let alone judge, his system. Since very few people can, or have occasion to, clarify their philosophical-systematical position, most evaluations of a system's truth-value are without cognitive value. The norm “You shall take a position!” works as grandiose deceit. One makes up one's mind, but without knowing with which system one is aligned.² Especially as a historian, one can be led to understand a system more or less deeply by immersing oneself in it without ever developing clear standpoints in relation to the issues covered by the system. Such an immersion tends to lead to a favorable evaluation. When one has an absorbing and understanding attitude, one's own thought acquires the other's style. The result is an evaluation from the inside, and any potential criticism becomes immanent and therefore irrelevant for the system as a whole. The evaluator has become a representative of the system, and therefore his potential to familiarize himself with other systems becomes almost negligible.

The original philosopher arrives at his standpoint through much labor. His pronouncements acquire their status via ongoing comparison with other standpoints. If the opposition disappears, the system's cognitive value also disappears. It loses its punch and has no personality. What remains is simply a terminology.

IV

Can There Be, Ultimately, Only One Valid Total System?

Are Total Systems Identical After All?

“Fundamentally, all philosophers agree” (Durant 1938: 185). Perhaps all controversy, all attempts by new generations of philosophers to assert oppositions to the old, is merely a gigantic example of pseudo-disagreement. In other words, perhaps the appearance of opposition lies in the fact that systematicians have not been able to “translate” among different styles of expression or different languages and that this has led to polemicized characterizations of each other’s work. Another possibility is that they *have* understood each other’s work but simply (1) assert that only one *style* of expression is correct and (2) believe that argumentation must be formulated as if disagreement concerns fact and not expression.

Felix S. Cohen (1939) argues for a principle of “logical tolerance” within philosophy and other disciplines. He supports the use of “transformations” that permit “every statement within a system to be transformed to a statement within any other equivalent system.” About the applicability of this principle within philosophy he says: “two philosophical systems may be so restricted in scope and so far apart in origin as to have no content in common. But increase the diameter or scope of the two systems and you have an increasing common content . . . [and there is] no content in either system which can not be reached and included by an extension of the other system” (1939: 61).

Cohen maintains that the content of a statement is, to a considerable degree, a function of the system in which it occurs. Expansion of the system’s scope should therefore affect the content of the system’s original statements. This is an important point with which I fully agree. Cohen, however, draws dubious conclusions from this point. When two, initially very different philosophical foundations are expanded to encompass the same

CAN THERE BE, ULTIMATELY, ONLY ONE VALID TOTAL SYSTEM?

scale, the differences decrease and become less important; that is, the differences become less cognitive and more verbal. When the “diameter” is extended, the reservations that philosophers must add to their original propositions lead to a gradual elimination of real differences in cognitive content. Finally, the differences become purely ones of terminology (see Cohen’s discussion of Spinoza’s and Leibniz’s systems as, respectively, modified monist and modified pluralist systems [1939: 62]). Cohen maintains that the distinctions between monism and pluralism “do not constitute a true-false issue . . . [rather] these differences are differences of structure, of perspective, of emotive value, social symbolism, or practical usefulness, rather than differences of objective content,” meaning that they are not differences concerning what is actually asserted (1939: 63).

The Spinoza/Leibniz example fits Cohen’s theory tolerably well, but when the approach is applied to Spinoza and Descartes it does not fit. To some extent, the content of a statement may be regarded as independent from the system in which it occurs, but I would prefer to consider the expansion of the system as an extension of the original idea so that it can encompass (explain, cover) a steadily increasing spectrum of phenomena. In order to understand a statement within the system, one must approach the fundamental vision, the basic assumptions on which the system is based and by which it is expressed. This involves appropriating, to a certain extent, the original systematician’s fundamental view. Cohen, on the contrary, sees the fundamental idea as merely an accidental effect of one’s point of departure.

The task of describing the world may begin at one specific point, but all roads lead to Rome. The more comprehensive the system becomes, the more it becomes a description of Rome itself instead of the journey to Rome. When considered as descriptions of Rome, all systems are equivalent. If the philosophers were not so semantically “ill-bred,” they would agree that they all say the same thing. Some historiographers have suggested something to this effect, but most often only in a mitigated form.

If all historically developed systems are “after all identical” in the sense that *the same is said about the same thing*, we might expect that historical research would find its way to this step-by-step, by seeing through and correcting all terminological disagreements. Historical atlases might even be published to show in detail how the same things are covered by different concepts.

A somewhat more moderate theory would contend that the systems *in all essentials* say the same about *essentially* the same things. Incongruities in the systems might be the result of the authors' own errors in the application of common principles or rules of inference—as well as different inductive inferences or different working hypotheses.

Specialist works that take up the fundamental assumptions of the great philosophers at a relatively high level of precision do not indicate any concealed identity of these systems. The phenomenology of philosophy points as little toward one philosophy as the phenomenology of religion points toward a single religion. Speculations about a common primal foundation, origin, or source cannot change this conclusion, even if one takes a favorable attitude toward the possibility of a common x (for example, with respect to basic intentions). The special literature on Spinoza and Leibniz, and their mutual relationship, may uncover similarities in intentions, but this does not affect the conclusion that, when one considers the expression of their systems in their entirety, the two thinkers' images of the world and themselves seem profoundly different.

The conclusion that deep comparison of philosophies does not point toward a common propositional content, however, is problematic. The designs for phenomenology of philosophy, like phenomenology of religion, are themselves parts of systems, and therefore, to a greater or lesser extent, are influenced by one's own position. There appear to be rich possibilities for different systematic designs of a phenomenology. Hence our conclusion can only be a guiding general pronouncement at the level of everyday speech. Attempts to make it more precise produce the standard complications involved in a doctrine of systems.

The well-known Oriental parable of the elephant and the blind men's description of it is worth mentioning: some latched on to the tail and took it for the whole elephant, others grasped the ears, and so on. The descriptions complement, rather than negate, one another. They are all correct as far as they go, but they are all incomplete. It is part of the story, however, that the individual describers were reluctant to recognize the incompleteness of their own characterizations. They embarked on a discussion from their different, partial systems, from their different elephant parts, as if they had the whole elephant in mind.

This view differs from Cohen's in that it completely recognizes the degree of difference in cognitive content in the case of fully developed cogni-

CAN THERE BE, ULTIMATELY, ONLY ONE VALID TOTAL SYSTEM?

tive systems, but justifies this by making an illicit analogy with mistaking one elephant part, perceived by oneself, for the whole elephant. Such a view is not compatible with an effort to compare Descartes, Spinoza, and Leibniz. It is no use saying that Descartes apprehends one part of reality (the ears of the elephant), Spinoza another (the tail), and Leibniz a third (the trunk). One who says this must be capable of knowing ears, tail, and trunk. Who is?

Reality is often said to be so rich that it cannot be apprehended by one person. Everyone is able to perceive *some* features, but no one perceives them all. The systematians make generalizations from within their small sectors or their limited perspectives, and polemicize because they do not recognize their limitations. This viewpoint sounds most convincing.

Who recognizes clearly his own limitations? This notion leads straight to paradox. He is a great metasystematician who is able to make pronouncements about *all* the systems, who must be conceived to be free from the oppressive naïveté and narrow-mindedness of others. We have in the preceding, however, explained sufficiently why such a metasystematician can hardly be found. Perhaps there is such an overwhelming *Geist*, a Hegel of entirely new dimensions and perhaps far more difficult to understand than the Prussian philosopher king.

Back to our point of departure, though. Let us imagine that we have a common system up our sleeve, that we have at our disposal a kind of map on which we can draw all possible systems. We should then, in principle, be able to make surveys and comparisons of systems without having to construct any new framework or metasystem. It is of interest, however, to inquire on what basis one can *demonstrate* that two systems are in fact identical in their foundation. Let us suppose that a Cartesian god (a nondeceiving, omniscient god) has whispered in our ear that all systems are identical in basic categories. Do we have criteria that enable us to discover the identity? Can we demonstrate that systems have a distinction between 'being' and 'nonbeing' as (part of) their foundation? Do they share the principle of contradiction? As far as I can understand, we would only be able to accept the dictum of the Cartesian god without argument; we could not remain critically questioning.

The father of all occidental philosophical systematics, Aristotle, sought an ultimate, absolutely certain, and self-evident foundation for all knowledge, and thought he had found it. His fundamental distinction was be-

tween “that which is” and “that which is not,” and his fundamental ontological principle was that any and every thing either is or is not. A third alternative is impossible. The concept of truth is connected with this fundamental ontological distinction and principle. ‘Truth’ is introduced by a definition to the effect that to speak the truth is to say about *that which is* that “it is” and about *that which is not* that “it is not.” ‘Knowledge’ may then be introduced as *knowing* (having verified) about something *that is* that it is, and so on. Thereby, we are already well on the way to an Aristotelian system construction.

The possibility for non-Aristotelian systems arises with the “primeval intuition” to guarantee the meaning and truth of the fundamental ontological principle.

Can we imagine that *that which is* in a certain, particularly qualified sense, cannot be ascribed any well-defined quality or characteristic, but is beyond human structuring? If we pose this question, we approach the problems in Plato’s dialogue *Parmenides*, in which “that which is,” in the eminently qualified sense, is the One, and cannot be ascribed the property of being! The request perhaps involves an absurdity. If one thinks, one thinks of *something*, and then one does not think of something else; hence, the principle of identity applies, and thereby the principle of contradiction. Thinking involves structuring.

Aristotle can (of course) incorporate these doubts in his own system by saying that the one who proposes a theory of the unstructurable already presupposes that something is either unstructurable or not.¹ Thereby, the ontological statement is already implicitly accepted by the one who seeks to doubt it, but the doubter can then question Aristotle’s attempt at incorporation.

Of more practical importance for philosophical-historical expositions is the question “Is there only *one* concept of ‘being’, the one that Aristotle seems to intend—considering his entire *philosophica oeuvre* (not just the place where he speaks about the fundamental ontological distinction)?” Actually, metaphysicians operate with different degrees and kinds of being. Aristotle seems, in the beginning of the fourth book of the *Metaphysics*, to want a very wide concept, one that is so inclusive that *that which is not* also *is* (namely, in the sense that one can say of *that which is not* that it is not). Other metaphysicians, and Aristotle in other contexts, introduce, or seem implicitly to presuppose, narrower concepts. A limiting case is the one in

CAN THERE BE, ULTIMATELY, ONLY ONE VALID TOTAL SYSTEM?

which *that which is* is identified with divinity, the One, the nameless, or that which is in other ways “highest” or “most” being. What does “being” stand for when being is graded and evaluated according to its kind? What is common to all degrees?

Aristotle’s truth definition can perhaps be made to cover all concepts of being, since it can be seen as an abbreviation for “True is the statement that about that which is—in terms of the criterion of being of subspecies *x*—says that it is in terms of the criterion of being of subspecies *x* or of that which is not—in terms of the criterion of being of subspecies *x*—says that it is not in terms of the criterion of being of the subspecies *x*. And this applies to all kinds of *x*.”

Nicolas Rescher and Robert Brandom (1980) distinguish between standard worlds and nonstandard worlds. The latter are inconsistent but may exist just as well as standard worlds. Although they may be rational, they violate principles that have been accepted as common for all system creations that refer to that which really *is* and not merely *seems to be*.

If all systems have identical basic categories, even if their authors do not accept this premise, then must those who in their explicit formulations take into account fewer kinds of being than the philosopher who introduced more types be supposed to have intentionally left the others unmentioned? Those who polemicize against the many degrees and kinds of metaphysical being would have to have misunderstood their opponents, or perhaps misunderstood their own systems. In this way one might try to keep a common framework for all systems, an expanded identity- and contradiction-principle, but I cannot believe that we will find such a framework, and I do not see the importance of finding one.

“The Common World”: Postulate or Reality?

The standpoints toward the possibility of the common world may be placed between two extreme limiting cases:

1. All human beings—including philosophers and poets in all cultures—respond to one and the same identical reality, but they respond in part in extremely different ways, and to some degree to different parts of this reality. Furthermore, they see reality from different perspectives, from different needs and expectations, and from differ-

ent talents and gifts. They throw different conceptual nets over the same reality and live to that extent in different worlds.

2. Human beings respond in all essentials similarly, but toward partly different worlds. Any individual lives, strictly speaking, in his own world. The situation to which man reacts is different and specific for each individual. Life situation, life space (Kurt Lewin), choice situation, and internal reality are different, and change with time for each individual, but talents, endowments, needs, expectations, conceptual nets are in all essentials the same. The different specific worlds are not parts of one comprehensive (unexperienced) common world, nor are they aspects of such a common world.

Conceptions other than those that can be pressed between these two extremes are worth close examination—for example, the one in which it is meaningless to claim that there are two radically different worlds or realities. Since we cannot indicate any experiences that could connect us with both, even indirectly, it is senseless to claim the existence, and hence also the possibility of the existence, of two. (If we were to experience both, we ourselves would become a connecting link, and thereby the two worlds would be combined into one.) This standpoint, which of course is based on a semantics and epistemology that is very much alive, might then be combined with the semantic claim that if a sentence is meaningless, then so is its negation. From the meaninglessness of "There may exist two worlds" the meaninglessness of "It is not the case that there may exist two worlds" follows. Now one world is a special case of "not two worlds," from which follows the meaninglessness of "There can be one world" and therefore also of "There is one world." All discussion of the one world disappears!

Many systems seem to presuppose that reality is one. The representatives of such systems think that what their system covers *is* that reality and that their system covers reality in an adequate manner (in all essentials), whereas the other systems fail to do so. The expression "stipulate a reality" is perhaps apt since it is not a matter of having found out that reality is singular, but a kind of requirement. Insofar as the expression is involved in a concept 'reality', and this is the one employed in metasystematic statements, it applies without restriction: "Within all possible systems, reality is regarded as singular." When one speaks of living in different worlds, or in general about the existence of different realities, one must employ other

CAN THERE BE, ULTIMATELY, ONLY ONE VALID TOTAL SYSTEM?

concepts of 'reality'; otherwise, inconsistency results. We do not have to discuss here whether systems that have only explicitly formulated concepts of this latter type must be said to employ the former implicitly (besides the others). I assume that no system needs to assume one reality if the unity involves more than something purely formal or something purely stipulative. That there is only one reality, or that there is at all a reality of the kind most systems say there is, is no more than a possibility if such a reality is conceived to be something of which at least one specifiable proposition is true, beyond what is said in the definition. Statements of the kind "The only reality has the characteristic *C*" may possibly be true, possibly false, or possibly neither (such as "The present king of France is bald").

It is usual to contemplate an atom as both a material object (or "physical system," to speak in textbook terminology) and a model. The same duality applies to a number of other entities. Does it apply to the world as well? The history of ideas, including the history of scientific ideas, can tell us about different world concepts. They have functioned as intellectual models in a somewhat wider sense than the atom. In the case of the atom, it is clear that a duality concept is not necessary. Various continuum concepts provide alternatives.

Does the same idea apply to the world models? Are we at all necessarily bound to employ world concepts? This seems doubtful. A kind of solution has to be found for the question before one makes a decision as to whether there can be several worlds. Most philosophers seem to accept that we all live in one, single, definite world.

Even if philosophical systems are incommensurable or if commensurable are contradictory, they nevertheless have one thing in common: they all deal with *one and the same* "world." There is something that is given for all. The world is that which philosophers struggle with: they seek order and meaning in it. It is an impossible thought that different worlds should be passed out (by God?) or that different sets of data should be distributed to different philosophers. If one could only manage to characterize the given in a neutral way, one would be able to describe the systems within a common frame of reference as different attempts at orientation in the same terrain.

The system comparer, however, would have to confront the systems in the same way that the rat psychologist treats his rats: he lets some of them out in a problematic field of mazes of his own construction and control,

while others are exposed to a cold airstream that blows on their tails when they must choose a path in a hurry, and so on. The rat-psychologist decides high-handedly what is to be called the right path and what is the wrong one. The rat has no say in the matter. The system comparer is no such super rat psychologist or supersystematician. Most system creators may imagine a *common* world (among the clear exceptions are Leibniz and Max Stirner, and others), but the system comparer has no special abilities that enable him to characterize such a common world independently from each system. He is in no better position than the others. From the moment he draws his first distinction, he is caught in a system—he has performed a system-constituting act: he himself is in the mazes, not in an armchair outside.

Everett Hall (1960) has introduced a concept of "categorio-centric predicament" or "category-centered dilemma" in relation to a similar problem: committing oneself to *special* categories that might have been chosen differently. Hall, however, accepts the given as something that all systems must tackle, and thinks that by assuming that something common is given, one avoids an untenable relativism:

[Each one of the various rival philosophical systems], in its dispute with the others, judged the issues in debate from its standpoint and used its categories to set them up. The world does not appear in its own right to decide this contest. One can get at the common object here only through the various rival characterizations of it. What to do? A sheer relativism that simply says, "Be happy with any philosophy which, by some chance, you have got yourself involved in, for there is no rational choice between them," will not do. This is indeed one of the contestants and should not be favored without reason above others. So we are faced with the problem of trying to get out of our categorio-centric predicament and coming to terms with the universe by means of something given to all philosophical constructions. (Hall 1960: 127–28)

Nevertheless, Hall's reflections about the given are marked by specific attitudes and positions that are not the only possible ones. His explanations do not provide any fixed point beyond the systems, a *corpus alef*. Indeed, elsewhere he seems also to state that he operates with certain categories. These are involved and make the hypothesis about the common given system relative.

To the world pluralism that I think is a living philosophical possibility, it is not in itself destructive to assume that all philosophers proceed from the "given," but then it becomes a completely formal category. It says

nothing about the given as content; nothing is said from a material point of view. The same applies to certain world concepts that can be used in combinatorial logic and in statistics: they are completely formal concepts that concern structuring, not that which is structured.

One approach is to work on the basis of a program: let us seek to delimit a commonsense world, our common world. Such a delimitation lies within the scope of modern social science insofar as one wants to arrive at a social net of relations. "The problem of social reality" may, I suppose, be posed as a completely research-worthy problem, as Alfred Schutz (1962–66) suggested. When one speaks about discovery of the presuppositions of the commonsense world, however, a serious problem emerges: where does Schutz himself stand during such a discovery and from where does he get his terminology? Columbus could discover America because he came from outside; the Indians he encountered could not. In his introduction to Schutz's *Collected Papers* (1962–66), Maurice Natanson makes Schutz's approach appear as a kind of intuition; he says that Alfred Schutz's philosophy "articulates a single intuition, the discovery in full depth of the presuppositions, structure, and signification of the common-sense world" (Natanson in Schutz 1962–66, vol. 1: xxv).

Schutz constructs a model of different strata in man's social reality. The whole schema is described as if he finds these very strata and places himself safely and securely by one of them, just as a geologist sits down by a rock and takes out his little hammer to break loose a piece in order to analyze it. Natanson writes that "[T]he taken for granted everyday world of living and working is the nuclear presupposition of all other strata of man's reality, and it is this ground of social reality to which Dr. Schutz turned and which he took as a point of departure for analysis" (Natanson in Schutz 1962–66, vol. 1: xxvi).

Natanson states further that the indispensable foundation for earthly existence remains unnoticed by ordinary men, even if their life is structured by and based on the mold of everyday life. "The philosopher's privilege is to render the taken for granted object of his critical inspection, and this indeed was the procedure of Dr. Schutz" (Natanson in Schutz 1962–66, vol 1: xxvi). This is possible, I suppose, but it can only be done from a system that treats "taking x for granted" ("the obvious") as an *object* for inspection. When N. N. crosses the floor, he takes for granted that it will hold up. To describe this view presupposes a structuring: floors that hold

are distinguished from floors that do not; the goal of not falling through a floor is derived from a more general goal of not hurting oneself. These goals are ascribed to the one who strides across the floor. The phenomenologist looks at N. N. as he crosses the floor, thinks of all that N. N. takes for granted, enters into N. N.'s way of experiencing—but from a system, a conceptual structure. One notices the structure when, as a phenomenologist, one thinks that one makes a mistake.

The model called "social reality," "commonsense world," or "our common world" tends to be underestimated. One postulates a social reality but does not think one has employed any model for this: indeed, the social reality is *just precisely* the reality in which we live. The situation is perceived in the same way that Karl Marx perceived communism in his *Die Deutsche Ideologie* (1938): idealism is an intellectual construction, but communism is *the development itself*. Communism is no ideology; it is not a name for a doctrine. The sentences that seem to express communism as an ideology have merely a kind of index function: they point to the very development itself in its progress. This is a completely natural way of speaking as long as one is within a system with all one's heart and brain. Then it is of course not perceived as a system, but if there is even a tiny discord in one's mind, one will sooner or later have glimpses of the system from outside. One is again in the maze of possibilities, a maze not of one's own making, but not of anybody else's either, . . . or so it seems.

Cultures Construed as All-Embracing Systems

“Philosophical Systems” as Designations for an Articulated View of Reality as a Whole

The aim of this chapter is to examine the extent to which problems dealt with in relation to philosophical systems also arise in relation to cultures. This especially concerns the possibility of describing a philosophical or cultural system within the framework of another system. It also concerns the possibility of comparing systems in a neutral way — hence without relying on the concepts of one system or construing the other in terms of them. In addition, we are interested in both examining the possibility of indicating criteria for the depth of philosophical and cultural differences and exploring the influence of these different levels of variance on mutual understanding and comparability.

It turns out that it is not easy to approach these problems without saying something about concepts of culture and modern cultural anthropology. First, however, a repetition of the system idea as applied to philosophy is needed.

Philosophical systems are verbally expressed by sentences, in part descriptive and in part normative. Each sentence has a sense (a meaning), in terms of the Aristotelian trichotomy, as: (1) linguistic expression, (2) sense or meaning, and (3) reference or state of affairs. The system becomes a *B*-entity.

The systems “pretend” to provide justified truth about reality, hence a kind of insight or wisdom. The unique characteristic of *philosophical* systems is that they refer in direct speech to reality as a whole. They address everything that is required to comprehend reality in all its essential and fundamental traits. They do not refer to every single thing in reality indi-

vidually. Such an approach would lead to an all-inclusive, detailed encyclopedia. The systems thus comprise more than what is ordinarily intended by such expressions as “the world,” “the universe,” and “nature,” but also less, since the details are not relevant.

From a historical point of view, a philosophical system is a construction. History reckons with an incessant development in the thinking of individual philosophers and acknowledges the fragmentary and context-determined character of all written texts. Philosophers conceived as historical persons do not write down systems in the sense of the expressions introduced in this work. Even in the case of Spinoza, one must take into account more than the central text, the *Ethics*. Spinoza’s unsystematic letters to colleagues are also a source when one seeks to describe what is called Spinoza’s system. The systems should be construed as units.

If one takes the *Ethics* in isolation, however, it is inordinately well suited as an example of a connected set of statements about reality, even if one does not fully comprehend the methodology and political philosophy. Within the cultural tradition to which Spinoza belongs, these subjects must be counted as important in descriptions of reality. If only for this reason, one cannot identify the *Ethics* with Spinoza’s system.

The main purpose of this chapter, as suggested, is to examine the extent to which the problems concerning philosophical systems that have already been discussed apply also to cultures. If the answer is something like “to a great extent,” then this must have consequences, not only of a theoretical nature, but also for national and international cultural politics.

Cultures as Information Economies

The analogy between philosophical systems and cultures cannot be made effectively without a certain simplification. Introducing some culture concepts will make the analogy less complicated. Those culture concepts that view cultures as embodying more or less uniform sets of normative and descriptive knowledge or information fall into this category. Because of the comparatively uncomplicated analogy with such a choice of concept, I shall begin the comparison of cultures and philosophical systems with the description of one of these concepts, the so-called information-economic one. It is strongly influenced by Euro-American information theory and social economics. The concept must appear rather peculiar from the point of view

of other traditions, such as the Indian, but that is, if anything, an advantage rather than a drawback in view of our special task in this chapter.

According to John M. Roberts (1964: 438), a culture is an “information economy” in which information is generated, stored, recovered, communicated, used, and in part also lost. A philosophical system, as the expression was introduced, corresponds to the content in the stored (cultural) information. The difference between two systems then corresponds to the difference between the stored information of two cultures.

About this storage of cultural information Roberts, among other things, says:

In any culture information is stored in the minds of its members and, to a greater or lesser extent, in artifacts. Since the four tribes under consideration [Chiricahua Apache, Mandan, Omaha, and Cheyenne] were preindustrial and nonliterate, it is not necessary to consider artifactual storage here. . . . For purposes of discussion it will be assumed that the entire informational resource of each of the four cultures was stored either in the heads of tribal members or in the heads of those nonmembers of the tribes with whom tribal members communicated. (Roberts 1964: 439)

Among the people who are *not* members are researchers from the industrial countries. They are the ones who have attempted to *describe* the cultures. Such descriptions belong in the information-theoretical category, in which *the stored content of the culture* is represented systematically in English or another language that is employed by cultural anthropologists from industrialized countries. This sounds straightforward at first blush but appears very problematic after closer analysis.

On the basis of the systematic, purely descriptive account, one might then conceivably formulate a system corresponding completely to a philosophical system, consisting of norms and hypotheses. Recovery of philosophy takes place by communication, the use by application in action, loss by imperfect communication, and in other ways. The same might be said about cultures. Thus, the analogy between cultural system and philosophical system is very clear in terms of the information concept and information theory of culture.

Conceived in terms of information theory, cultures may be more or less complex, and hence the individual members will in a lesser or greater degree be able to be carriers of great parts of the whole culture. According to

Roberts and Morris Opler, whom Roberts quotes, Chiricahua Apache exemplify the latter. They had no formal ceremonies, no institutions that only the leaders knew about. "An adult male and an adult female actually commanded a substantial fraction of the total Chiricahua Apache culture" (Roberts 1964: 446). A natural comparison is with the conditions in the medieval, extremely decentralized Lapland.

The circumstance that most cultures, to be preserved in their entirety, require many members, makes the analogy with philosophical systems somewhat more distant. In addition, special problems arise for the information-theoretic model when the content that is stored by one group, one particular profession, for example, is in part incompatible (inconsistent) with what is stored by another group. If ordinary axioms for " x is an instance of knowledge" are applied, x must not contain a set of inconsistent parts of knowledge. For example, if a culture contains assumptions about the kinship between persons A , B , and C , then the set of assumptions, x , cannot contain both " A and not B is the mother of C " and " B and not A is the mother of C " without losing its status as a coherent whole of knowledge. In other words, according to these axioms a culture cannot be represented as a coherent whole of insights if two so-called insights are cognitively incompatible. We will have more to say about this later.

Let us make the unreasonable assumption that we stand cultureless and are offered membership in a culture. In view of the preceding, this offer does not seem to be of quite central importance. As information economies, cultures offer various ways of generating, storing, recovering, communicating, using, and losing information. These are useful things, but useful for what?

Cultures as Total Forms of Life and World Images

In what follows, I take up a culture concept or rather a family of culture concepts that are akin to Roberts's, but that nevertheless differ sufficiently from his to give another shape to the problems we are addressing. I shall in all essentials keep to Fredrik Barth's accounts within the subject he calls social anthropology. It is very close to what kindred researchers have called cultural anthropology.

That Barth's concept has intimate relations to philosophical systems is suggested by some of his central statements (1977), for example, that a cul-

ture is a specific way of interpreting the world, organizing society, and finding the meaning of life.¹ A particular culture designates the main features of an intended organization of society and seeks to denote the meaning of life as an essential part of reality. The term *intended* is worth noting. A description of a culture does not have to include ways of behaving that are not intended.

It is presupposed that no culture exists that denies life a meaning. This presupposition is not decisive. Philosophical views that deny a meaning in life presuppose at least implicitly that a stand is taken on all branches of philosophy.² If the denial characterizes a culture, it will implicitly be all-encompassing.

Barth (1977) contends that “each culture can be understood as a world alternative to our own.” The wording here is close to my own in the question “Which world is the real world?” My response is, *inter alia*, that no single world can be pointed out as more real than any other. An analogous answer is given by Barth in relation to cultures!

Barth further assumes that each culture contains a wealth of traditions and visions of the good life. Analogously, I argue that the same holds for philosophies: such content is a necessary condition for motivating the exertion required for conscious development and verbal articulation of philosophies.

In a conversation in 1972, Barth mentioned to me that he estimated that there were several thousand such cultures on earth. Given the homogenizing effect of globalization and the stresses placed on indigenous societies, one can only conjecture how radically reduced the number will be in the future. I perhaps require more originality in a culture than Barth does, and thereby reckon with somewhat fewer cultures in the following analysis. In any case, numerical indications are highly arbitrary. The demarcation problem is similar to the one of distinguishing among languages and dialects. The number of living languages depends on where the line is drawn.

The word *tradition* is central in cultural anthropology. Its closeness to the concept of culture appears from the following statement by Barth, which is after all very similar to the statements about cultures. “Every cultural tradition defines premises and meanings of life for the population that carries it . . .” (1977).

“Cultural premises” and “system premises,” in the sense of nonderived descriptive statements and prescriptive rules, are not the same, but there is

a kinship between them that is important for the comprehension of both. Many anthropologists have indirectly presupposed such a kinship. “[I] have shown how nearly everything that happens in Kalabari life can be interpreted in terms of a scheme which postulates three basic *kinds* of forces: ancestors, heroes, and water-spirits” (Horton 1970: 133). Robin Horton, who made the preceding statement, contends that the system of explanation corresponds to the Western one in which atoms, molecules, and waves are introduced as nonobservable entities. The three sets of theoretical entities serve to introduce “unity into diversity, simplicity into complexity, order into disorder, regularity into anomaly” (Horton 1970: 134). Horton thinks that when anthropologists do not see the similarity, it is because they are unfamiliar with their own occidental cultural theory constructions (for example, as in physics).

I. C. Jarvie and Joseph Agassi (1970) emphasize that the strength of the magical worldview lies in its completeness. Everything can, in principle, be explained in terms of either magic or failed magic. After all, the difference between magical total views and “scientific” ones, argue Horton and others, is that the scientific tradition involves a permission to criticize theories and their basis. The relevance of this point for the problems in this chapter, however, is only partial. Cultures are more than total views of how events can be explained. They also contain, among other things, *descriptions* of that which needs to be explained.

Structure, Experienced Content, and Correct Conduct

A word that is central in cultural anthropology, as in many other social sciences, is *structure*. We use the word daily. A boat can have a beautiful, solid, complicated, or awkward structure. The structure of positions in certain universities in the postwar years was top-heavy: there were many professors and few junior positions. The structure of Ibsen’s dramas appears to be meticulously thought out. Barth (1977) says that “anthropologists seek to demonstrate the structure in each culture—how it constitutes a cognitive system, a set of codes for communication between people, and a world picture whereby they interpret their external reality.”

A whole series of deep questions might be posed by using this quotation as a point of departure. One of them concerns the relationship between structure and content. As fellow beings, we are interested in the cultural

content rather than the structure. The codes of communication are important, but in human relationships they are important only because they are necessary to obtain access to content. Can cultural anthropology as a science do more than describe the codes as part of structures?

The quote also suggests that the anthropologist seeks to show how the structure constitutes a world picture, whereby the carriers of the culture “interpret their external reality.” This formulation begs the question “How then does reality look, how is it experienced, when a carrier of the culture uses the code and the world picture in his interpretation of reality?”

My reason for posing the question is primarily culture-political. The ever better organized, but also constantly unsuccessful, attempts to preserve cultural diversity on earth presuppose that cultures differ not only in their structures, but also in their experienced content. This point of view presupposes that lived worlds must be different. It is not enough that the machinery differs.

To remind ourselves of this point of view, it is perhaps appropriate to let “world picture” stand for something more concrete than some code. The emphasis might be placed on perceivable entities, not merely an abstract representation, a model, or a world depiction. When applied, for example, to Ghanaian music, it involves an attempt to gain knowledge of how the Ghanaian music affects the listener and is experienced by him in comparison with how German or Norwegian music appears and is experienced. Hence, in addition to knowledge of structure, we must also consider knowledge of the experienced worlds and their mutual relationships. Some insight is obtained simply by asking. Ola Kai Ledang (1981) asked a chieftain’s son from Ghana what he thought of Beethoven’s symphonies. The spontaneous reply was, “For me the symphonies of Beethoven are not very interesting or valuable music. It sounds almost like a march all of it” (Ledang 1981: 22).

There is an essential difference between behaving “correctly” in a situation within a culture and experiencing the situation in the natural way that a carrier of the culture would experience it. A robot can, in principle, behave correctly, that is, within a wide or narrow frame defined by norms and hypotheses (seen from a system viewpoint).

Let us suppose that two anthropologists or a tourist and an anthropologist conduct themselves correctly in a foreign culture. Their levels of insight into that culture may nevertheless differ. Their depths of intention may be different. Deep comprehension of a culture is presumably impossi-

ble without *intimate familiarization* with the culture; this presupposes identification with the culture and thereby affective transference. At this point, too, the similarity between philosophies and cultures appears.

Erik Dammann describes his and his family's experience of attempting to *live* in a foreign culture:

The [Samoan] village itself had enthusiastically accepted what we in our naive ignorance said the first day: We do not want any separate treatment, we want to learn to live *your* life! In practice, this turned out to mean that we had to live more closely and more constantly together with them than we were used to even with the closest family at home. In order to manage such a form of common life, it was not enough to "understand" them. We had to become fond of them. (Dammann 1981: 25)

It is worth noting that "understand" here is in quotes. For if understanding refers to content and not merely abstract structure, then the researcher must to some extent experience the world the way the foreign culture experiences it. This means that in Dammann's Samoan village, people look at each other and perceive each other in ways that are affectively normal in terms of the Samoan culture's premises. Hence, the understanding has an affective aspect that cannot be detached from the intellectual one.

It is difficult to believe that a working anthropologist who seeks to enter as far as possible into a foreign culture does not, at least in glimpses, experience a situation very nearly the way a carrier of the culture does. It is, however, methodologically very difficult to confirm the degree of proximity.

If one emphasizes the uncertainty of this assumption of "glimpsewise" similarity, one must also stress a corresponding uncertainty within one's own culture. The problem is then no longer specifically a problem of cultural anthropology, but one that is relevant quite generally to the question of demonstrating interpersonal similarity or difference in experience.

The differences between the Baktaman culture and my own (Norwegian) are overwhelmingly multifarious and evident in all types of everyday situations, not just special situations such as participation in rituals or hunting. Suppose we try to list all the norms and hypotheses that are both relevant for the Baktaman during an arbitrary five-minute period of their everyday life and different more or less from life in Norway. I predict that there would be hundreds of entries before we got to listing their perceptions of their external surroundings (trees, paths, dwellings, light, shadow,

rain, sun, and so on). From a philosophical point of view with an emphasis on Gestalt thinking, the list would in principle be amenable to nearly limitless expansion.

All these differences are relevant for how the world and one’s self are experienced. They work together to form total experiences, not by summation, but by Gestalt laws—I suppose. Indeed, we can obtain more or less secure knowledge about the structure of such differences, but if we are concerned with culture content, we cannot avoid asking, To what extent and in what way can we experience five minutes in the way it occurs in the foreign culture?

Furthermore, we have the additional problem of the maximum possible difference in experience and the hypotheses of biological or other factors that can tell us about the limits of these differences. It seems unreasonable to assume that biological similarities, such as the make-up of human sense organs, do not determine limits of difference in experience.

“Culture,” ‘Culture’, and Culture

In the preceding we have in our reflections about systems first employed a rather special and relatively clearly delimited concept of culture: Roberts’s (1964) information economy. In addition, we have used a more diffuse, but intuitively more plausible concept presented in Barth’s paper (1977). That concept, too, makes cultures cognitive units, units of insight. In cultural anthropology, however, very different, much broader definitions have been prevalent. Let us consider three examples (Keesing 1974: 138):

1. The complex whole that comprises knowledge, art, morals, law, custom, and any other skill or habit that a human being has acquired in its capacity of member of society (Tylor).
2. The sum total of knowledge, attitudes, and habitual patterns of behavior that members of a particular society have collectively and transfer (Linton).
3. The man-made part of the milieu (Herskovits).

These ideas are clearly important for any description of culture, whether or not one includes artifacts in the description—that is, the cultural objects. Furthermore, if one includes factual, mostly statistical information

about learned behavior, or keeps to the patterns and norms of behavior, it becomes necessary to consider more carefully the semantic and the science-historical peculiarities of the word *culture*.

Like *democracy*, the word *culture* shows a high degree of ambiguity and vagueness—although this does not prevent it from being useful cognitively. On the contrary, such words may indeed be irreplaceable in political science and cultural anthropology, respectively. It is, however, important to avoid the illusion that such words stand for any specific cognitive content.

It is also important to understand the reaction in contemporary (1970s) cultural anthropology against an influential concept of culture that was developed by E. B. Tylor and continued by Alfred Kroeber and Clyde Kluckhohn. One of the leaders of the “reaction,” Roger M. Keesing, formulates it as follows:

[W]e increasingly realize that the holistic, humanistic view of culture synthesized by Kroeber and Kluckhohn includes too much and is too diffuse either to separate analytically the twisted threads of human experience or to interpret the designs into which they are woven.

The challenge in recent years has been to narrow the concept of “culture” so that it includes less and reveals more. As Geertz argues, “cutting the culture concept down to size . . . [into] a narrowed, specialized, and . . . theoretically more powerful concept . . . has been a major theme in modern anthropological theorizing. (Keesing 1974: 73)

The approach suggested by Keesing in this example is clearly profitable in the short run, but its value over the long run is more questionable. It turns out to be infeasible to obtain agreement about one concept as the scientifically fruitful one. Key words such as *culture* are simply not amenable (fortunately) to constriction in such a straitjacket. Attempts to standardize are likely to lead to unfruitful propaganda for the concept that suits the research of one’s own group in the short run. The compendia *Psychologies of 1925* and *Psychologies of 1930* provide discouraging examples from a related discipline (each psychologist has his own concept of psychology).

On the other hand, it is clearly fruitful to make *culture* more precise in special directions and use it in specific ways definitionally for particular purposes and in particular texts. Then, however, one introduces stipulative definitions without pretensions that everyone in the discipline, regardless of research program, should or can keep to the definitions.

The information-economy concept introduced by Roberts provides a good example of a precization of *culture* adapted to new, presumptively valuable, but very special research programs. In what follows I shall occasionally use the word *culture* the way it is used vaguely in the literature that Keesing characterizes as holistic and humanistic. I do not pretend that the word expresses any *specific* concept, but that the use, *if it is made more precise*, falls under the family of concepts that are also exemplified by Barth's use, hence a cognitive concept.

For the comparison between culture and philosophical systems, it is fruitful to eliminate noncognitive elements. It is helpful to keep to concepts of culture that do not include cultural products, such as paintings and ships. Similarly, one should focus on the rules of accepted practice rather than try to include all actual customs and their gross deviations. The intentions of behavior, not the way a society lives, then become part of its culture. The prescriptions for behavior, not the descriptions of behavior, become relevant.

With this precision, a culture demarcates an all-purpose set of norms and descriptions (of the world). In what follows, then, I keep to such a concept of culture.

The application of a cognitive concept of culture is, of course, not unproblematic. Suppose we film a dance. What belongs to the culture and what does not?

An older woman rises and dances out on the floor. After a while we understand that her movements illustrate what has happened.

At first she dances with bowed head and serious face. Sometimes she stretches out her arms imploringly, then she lets them fall again and dances slowly on with her eyes towards the floor. Then she suddenly looks up and smiles, grasps in front of her as if she receives something. The song becomes quicker, the clapping becomes rhythmical and fast, the old woman wiggles and hops merrily while she laughs and pats her plump stomach again and again.

It is not difficult to see what she represents: the hungry have received food and have become happy again. (Dammann 1981: 115)

For this culture, there are guidelines for the dance, the method of representing the historical material. In this case, the guidelines are the fact that the Dammann family in the village of Manase went almost without food for several days, and many other dramatic details related to this sad

event. Problems arise, however, when one wants to give a precise description of the cultural content of this dance. It becomes no less difficult to describe Erik Dammann's own subsequent dance, which was received with laughter, shouts, and vigorous applause by the community.

Now I tackle the question "Do similarities between cultures and philosophies disappear because philosophies have an appreciably higher level of integration and are furthermore assumed to be logically consistent?"

Integration Level and Consistency

The philosophies of Aristotle, Thomas Aquinas, and Spinoza — to take some prominent examples — consist of elements joined together with great accuracy. Researchers who study such philosophies usually hold that the mutual relationships of all the parts are carefully thought out — they are completely integrated in a consistent whole. Here, no deviation is tolerated. One might have another impression, but through specific interpretations that do not have to be completely unreasonable historically or by distinguishing the "mature" philosophy from fragments created during the philosopher's development, the researchers perhaps manage to verify that the system is consistent.

It is more realistic, however, to reckon with imperfect integration and only partial consistency, even if only a minority of specialists has such a view. In the case of Spinoza's philosophy, it is comparatively common among specialists to complain about the inconsistency in it. I myself think that it is, in any case, exceedingly difficult to arrive at an interpretation of the texts that embodies a clear, all-encompassing integration and consistency. Generally, I suppose we should keep our minds open to the possibility that philosophies may be highly integrated and consistent, while recognizing that perfection is hardly attainable and not at all demonstrable, thereby clearing away an objection in principle to seeing a close similarity between philosophical systems and cultures. Cultures are indeed incompletely integrated, and it is the anthropologist's obligation not to overlook this. According to Clifford Geertz:

The problem of cultural analysis is as much a matter of determining independencies as interconnection, gulfs as well as bridges. The appropriate image, if

one must have images, of cultural organization, is neither the spider web nor the pile of sand. It is rather more the octopus, whose tentacles are in large part separately integrated, neurally quite poorly connected with one another . . . and yet who nonetheless manages to get around and to preserve himself, for a while anyway. . . . (Geertz quoted in Keesing 1974: 80)

Even if the level of integration within a culture is never perfect, as sometimes seems to be presupposed when there is talk about cultures, it is easy to demonstrate deep connections. This can be done by using simple sentences as points of departure. Consider, "I am a parakeet" spoken by a Bororo (and translated to a kind of English) and "I am a sinner" uttered within a Christian sect. Both statements are important indications of reality as these people perceive it in their culture; both are integrated in their social life and can be understood in terms of the context. Being a parakeet in Bororo entails many norms for behavior and decision making in conflicts; the same applies to being a sinner.³

A clear difference with regard to philosophical systems lies in the fact that cultures are collective. A culture is something that the culture carriers have in common. Here, too, a certain graduation must be introduced, although with caution: features of the culture may be more or less common, but we must remember Geertz's admonition about independencies and crevices. More important, perhaps, is the possibility that the culture carriers may, within the group, have so much independence that we would have to speak of subcultures, part-cultures, and cultural minorities.

With the Baktamans, the integration does *not* take the form of a consistent whole of insights, information, or knowledge. On the contrary, people moving through the seven steps of initiation plus those who are uninitiated often hold mutually inconsistent units of information. At each step, things are asserted that are denied on at least one other step. This point seems to me to reveal an essential weakness in the conception of cultures as information units or other things akin to units of normative and descriptive knowledge.

Against this negative conclusion, however, we might object that there is no inconsistency at the step of initiation that is, within the culture, generally recognized as the highest one. At this step, the purpose of "misinforming" culture members on lower steps is also explained.

The objection does not hold, because the members who have essential misinformation are clearly also culture bearers. Their purported insights

are genuine parts of the culture. They are important parts of the total complex of conceptions about what it is right to do and to think, which constitutes the culture according to the intention- and information-oriented culture concepts.

The complexity that arises from the presence of conflicting information within different groups, however, need not prevent us from perceiving the Baktaman culture as, in some degree, perhaps a very high degree, integrated. It may be highly uniform, only not in the form of consistent insight or knowledge among the culture bearers. One might try to find knowledge concepts such that consistency does not belong to the necessary conditions. As far as I can see, however, no fruitful concept has emerged from such efforts.

Moreover, in cultures other than the Baktaman, one may also find contrary information where the maintenance of conflict is deeply tradition-dependent and protected by norms for what is right to do and think. Cultures cannot be comprehended as wholes of knowledge. Complex totalities, yes; totalities of a kind similar to knowledge no.

Within many cultures, certain groups are generally recognized as the most competent carriers, and their systems of insights may be consistent. This applies to the Baktamans. When we, in what follows, continue to compare philosophical systems and cultures generally, we shall, in the case of those similar to the Baktaman, keep in mind the conceptions of a subgroup. Those who are completely initiated define the unity and totality of a culture.

Message and Knowledge

In Western tradition, philosophies are mediated by texts. In other traditions, oral communication can be the decisive or only form. All systems presuppose at least some form of language.

How are cultures communicated? In linguistically accentuated theories of culture, *message* is a key word. The message does not have to be transmitted by words, but even if it conveyed without words, linguistic terms may be applied. A harsh look without words may have the same function as a verbal expression of disapproval. One can employ a nonverbal "vocabulary."

The sender-receiver relation is central: it must be taken as the normal case of a message that precisely what the sender *intends* to impart is picked up by the receiver. In cultural communication, however, the intention does not have to be conscious, as it must be for philosophical systems. For the present, I shall nevertheless stick to a concept of message that requires that conscious intention. This requires a person or at least beings that are capable of teaching each other something and eliciting or performing messages.

If a *unit of behavior* (with or without words) functions as a message presented by a person or group *A* and the receiver *B*, one may distinguish among three cases: the groups *A* and *B* are identical, they partly overlap, or they are entirely separate. The first case is conspicuously important if one is interested in comparing cultures with philosophical systems. *Cultural content must be constantly repeated among the culture bearers if the culture is to survive.* The new generation must learn much and thoroughly. If the transfer is inadequate, the content of the culture shrinks.

One may, in a linguistically oriented theory of culture, speak of what *is said* in a ritual. The apprentice learns something by seeing and performing a ritual. When the learning is complete, the learner has acquired cultural knowledge. The concept 'knowledge' that is thereby introduced is such that the anthropologist who employs the expression does not himself regard the content as knowledge, but, for example, as superstition. The content does not have to be cultural knowledge within the anthropologist's own culture. A ritual, then, is said to contain (as a whole and in its parts) behavior units that impart knowledge. The receivers, however, frequently differ widely in their competence to comprehend the message. This, of course, applies to philosophical systems as well.

During initiations, the apprentice is normally frenzied, and so much is new that only repetitions of the messages can lead to clear reception. A senior Baktaman says, "You know how it is during your initiation: your *fnik* (spirit, consciousness) does not hear, you are afraid, you do not understand. Who can remember the acts and the words?" (Barth 1975: 101).

The second part of Barth's book about the Baktamans deals with the seven degrees of initiation, from the first and lowest to the highest within the culture. His anthropological objective is as follows: "I wish to provide a substantive documentation of the forms of Baktaman ritual activity, and as far as possible establish not only what may be understood and intended by

the leaders of these cult activities, but also *what is actually received* as messages by audiences and participants" (Barth 1975: 47). If it succeeds, the procedure will ascertain "the nature and extent of the knowledge and insight" that is communicated by the seven successive initiations.

The goal set by Barth has important features in common with, but also important features distinct from, that of a university educator who wants to investigate what knowledge and insight is actually received, say, in an introduction to Kant's philosophy. One difference is that the educator may conceivably apply his own standard of knowledge and not Kant's. The anthropologist will evaluate the knowledge in relation to the culture that is to be "learned" through the initiation ceremonies.

As an example of messages without, or with entirely subordinate, verbal features, one might mention the torture involved in some of the initiation ceremonies among the Baktamans: "Water and fire are also used for torture, reinforcing the basic messages of earlier initiation: that these forces are powerful and dangerous; sacred knowledge is costly and must be paid for with hardship and its value thus confirmed" (Barth 1975: 66).

The study of Baktaman culture makes it clear that the many complicated ritual details are exceedingly important for both the learner's individual welfare and the culture's. Violations of the rules can cost the apprentice his life and cause disturbances in the whole society. Use of painful initiations emphasizes the gravity of the rules. Torture must presumably be counted as a much stronger way of communicating this knowledge than merely saying quite calmly, "Water and fire are powerful and dangerous forces."

It might be said that the comparison with such a sentence is unsatisfactory because the cultural message is so much stronger and more complex. We must, however, consider for *water* and *fire* in the above sentence words that in the Baktaman language give rich and complex associations.

The use of the words *knowledge* and *message* among linguistically oriented cultural anthropologists is close to the use that I as a metatheoretician of philosophical systems employ when I describe a specific system, or more exactly, when I seek to describe a specific system "from within," *in terms of its own premises*. The use of *knowledge* is in both cases subject to the axioms most commonly established for sentences of the class "*x* is a case of (an example of) knowledge."

Cultural Knowledge in Relation to Status

The use of the word *knowledge* in cultural anthropology is far from being unproblematic philosophically, as the preceding may have intimated. I shall now consider more closely a complication regarding the evaluation of Baktaman culture.

In relation to ritual and much else, there are eight status levels in Baktaman society. More than half of the members, namely women and children, are not initiated into the cult. Most others, on the other hand, go through a series of initiations. At the top status level is a small circle of men who have been through all seven steps.

A social structure with eight levels does not necessarily lead to a situation essentially different from the communication of philosophical systems if a new initiation only adds knowledge to that given at earlier initiations. Consistency would then be preserved. Consistency would also be preserved if the initiations made successively more precise an original content. The peculiar circumstance with the Baktamans, however, is that misinformation, hence simply (in part) false conceptions, is deliberately imparted on the lower levels. Only on the highest level is the complete truth revealed. The apprentices are systematically misled concerning particularly important and dangerous knowledge.

This presents a problem: do only the messages on the eighth and highest level express (cultural) knowledge? The messages on the various other levels are such that their conjunction is a contradiction. (I view efforts to make deep philosophy from contradiction as either failures or pointless attempts to introduce another terminology of little use.) If only the small minority that has been through all seven initiations has consistent knowledge, and Baktaman culture is defined in linguistic terms as the sum total of cultural knowledge, then most members of the Baktaman society lack Baktaman culture.

Such a conclusion is not drawn in Barth's presentation, and it would also go against well-worked-out points of view on culture in general. Barth uses the word *knowledge* in such a way that misleading messages also express knowledge. Another solution is to give up the linguistically oriented concept of culture, which seeks to construe culture as the *sum total* of cultural knowledge. Then a split must be made by saying that hypotheses and

norms on each of the eight levels belong to Baktaman culture, but that as a whole their eight-level system does not represent a unifiable totality of knowledge.

For the comparison with philosophical systems, this problem is not essential since it is natural to compare only the knowledge of the fully initiated minority with a system.

Description of Foreign Cultures and Untranslatability

The Swedish language may be translated almost directly into Norwegian in the sense that a Swedish sentence can usually be coordinated with a Norwegian sentence of about the same length and sense. The degree of similarity in content or sense can be tested without great difficulty because the Swedish and Norwegian ways of life and manner of thinking do not usually differ in confusing ways. It is quite another thing, however, to translate Chinese poetry or Vedic myths into Norwegian. The linguistic differences are more substantial; but much more problematic are the extensive and deep cultural differences. By employing suitable linguistic conventions on the vocabulary level, one can “translate” sentence by sentence, but anyone who has endeavored to study cultures knows that the meanings cannot be even approximately the same. One way of getting closer to the meaning is to append footnotes to almost every word in each sentence and, furthermore, to footnote each sentence as a whole. One explains, to the best of one’s ability, the proper senses of the words and the sentence. Even with classical Greek it is natural to proceed in this way. One conventionally translates *areté* as “virtue,” but then in a long footnote seeks to explain what the word signifies. The longer the footnote, the more it dawns on the reader that more than a slightly higher level of approximation cannot be reached.

A sentence in the Nuer language is conventionally translated to English as “Twins are birds.” Without a long footnote it is natural for the reader to ask whether the Nuers really think that this is true. Do they mean that twins fly or lay eggs? The footnote can provide the information to answer these questions, but can the “translator,” by means of footnotes (not foot-works), impart precise knowledge to the reader regarding the meaning that is intended when the sentence is spoken by the Nuers themselves? I think it is appropriate to use a concept ‘translation’ such that we can consider it a confirmed hypothesis that the Nuer sentence is untranslatable. This stance,

I believe, will be viewed as reasonable as soon as one gets an impression of the Nuers' way of life and manner of thinking — in short, their culture. It seems very different from English and Norwegian culture, so the burden of proof falls on those who maintain a hypothesis of translatability.

Anthropologists emphasize that when describing a culture one must take the culture's own terminology for one's point of departure. This is ambiguous. If one means the culture bearers' own words and sentences — in short, their own language — a sort of description results: the Baktamans' Baktaman responses to the researcher's questions formulated in the Baktaman language. This, however, is not what is meant ordinarily. One usually thinks of the concepts and what the foreign words mean. These must be the foreigner's cultural property; they should not be replaced by the anthropologist's, but it is highly problematic to imagine how this might occur if the cultural differences run deep.

If we say about a foreign culture that witchcraft is a central part of it, a reader from our culture will interpret the word *witchcraft* in terms of our own culture's understanding of it. Clearly, however, that interpretation will be colored by what we consider to be the essential characteristics of witchcraft. We will, as readers, seek precision in terms of our own culture's concepts. Anthropologists seek to avoid this kind of problem in various ways.

In his central work on the Azande, E. E. Evans-Pritchard (1937: 8) states that he does not strive "to define witchcraft, oracles, and magic as ideal types of thought," but wants to describe what Azande understand by *mangu*, *soroka*, and *ngua*. When someone explains *mangu* by saying that it is "a material substance in the bodies of certain persons," it is clear that distorted ideas are being generated. *Material substance* and other words in the explanation still give associations in terms of our, not Azande, culture. This can indeed be corrected, but the corrections become more and more copious. It becomes increasingly obvious that all aspects of the world picture are involved in all explanations. To clarify the meaning of one word, one ends up — and for practical reasons, indeed one has to end — with an enormous number of explanations. The verbal road to the goal is lost in the horizon.

If one does not end up with an enormous number of words, but reaches comprehension after a few steps, this is a sign that the cultural difference is not deep, such as the one between Swedish and Norwegian. It seems as if insufficient semantic analysis conceals the problematic character of pro-

ceeding from “the terminology of the foreign culture” and “describing the culture on its own premises.” In spite of the risk of dwelling too much on elementary semantics, I shall offer an example.

The cultural anthropologist learns about nearly countless *forms* of marriage. The power of words over thought is constantly shown by the fact that one thereby presumes to have a convenient point of departure for comparison of cultures. One culture organizes marriage like this, another like that. It is difficult to avoid the thought that there is one thing, one object, one relationship, *what we all call* marriage, that is common to all cultures but simply has different names and detailed features. If all marriage forms in all cultures are to be defined as subspecies and species of one and the same genus, however, then we must include only characteristics that are common. These are few and highly abstract. A selection of them may be included as conceptual characteristics.

In biology we have the concept ‘vertebrate’. All and only vertebrates have certain forms of vertebrae. This is straightforward for ordering some types of thought, but when we are dealing with similarities and differences between dogs, cats, human beings, salamanders, and eagles, the characteristic of having vertebrae has very little significance. The same applies to the marriage forms. “Marriage as such” exists just as little as “the vertebrate as such.” The existence of the two words, *marriage* and *vertebrate*, and the concepts introduced by making them more precise, does not secure comparability except on a very abstract level. On the level of way of living and form of life, hence on the cultural level, they are practically worthless. If one encounters angry dogs or an insulted married couple in some culture, it does little to remember that they are vertebrates or spouses.

Information of the kind “Their *marriages* are like ours except that they . . .” may have a limited value, but such constructions make deeper understanding difficult since one continues to keep a concept, or an association center, drawn “from home.”

It is more realistic to distinguish among a great number of relations in which human beings are involved. One must seek to describe them as far as possible in terms of a culture’s own premises (Barth); hence, without hanging them on familiar pegs. The latter expression is misleading since the frame of reference is and always will be the describer’s, not the one of those being described.

The relations in a culture infiltrate one another. Forms of marriage cannot be characterized except in relation to relationships between children and parents, between brother and sister, and hundreds of other relations. Differences in relations, hence in structure, determine differences in the experience of brotherhood, sisterhood, marriage, and all other *content*. Cultural politics seeks structures that affect attainment of the highest purposes of the culture.

In earlier chapters we mentioned differences between philosophical systems and the reduced comparability that results when their differences become deeper and wider. The same holds for differences between cultures. In addition to the catchwords in philosophies, a long series of other catchwords is added in the case of cultures. Instead of mentioning examples from various nonphilosophical realms, I shall mention catchwords from ethical aspects of the cultures and keep to the important words in Harald Høffding's once influential *Etik* (1926): authority, pleasure, displeasure, the individual, sympathy, welfare, motive of evaluation, motive of action, conscience, sanctions, duty, freedom of the will, external constraint, internal compulsion, ability, force, skill, autonomy, personality, evil, stupidity, callousness, purpose, means, society, altruism, justice, self-assertion, and devotion.

These words are taken from the beginning of the table of contents of Høffding's systematic exposition. The list serves as a reminder of the deep and general connections that exist among the individual phenomena or relations suggested by the words. If we extract one of them, say autonomy, it is clear that autonomy within one culture cannot be characterized thoroughly without going into all the phenomena suggested by the other catchwords. Isolation is possible only by more or less superficial and abstract consideration. We must use our ability to think in terms of *gestalts* in order to seek experience of the world of others.

The Depth of Cultural Differences

It is indeed clear that, construed as information, cultures impart different messages. If we compare cultures with philosophies, we can at once (with our own culture as a frame of reference) establish that two cultures may have different *ontologies*. The Baktamans are surrounded by spirits. The spir-

its are an important part of their world. Insofar as spirits are recognized as existing in our culture at all, they have another character than for the Baktamans, and if we compare the Baktamans with cultures in which spirits are also an important part of their world, we find different views of what spirits are. Closely connected with this issue are differences in *methodology* and *epistemology*, or more correctly, differences in how one establishes and perceives knowledge of spirits and other things. The rules and standards for governing conduct (*ethics*) and perception of history and time all vary — the same issues apply to social and political problems. In short, there are differences in all branches of philosophy.

It is not thereby claimed that all kinds of differences exist in all cultures. Lapland was no state but was nevertheless a rather “close” society in the sense elaborated by Nils Christie in his book *Hvor tett et samfunn?* (How tight the community?). The culture exhibited common basic political views, in the wide sense, but perhaps not a philosophy of state.

Furthermore, it must not be claimed that viewpoints within all the branches of philosophy are directly communicated in language or in other ways within all cultures. Some points of view emerge only on the meta-level, in the cultural anthropologist’s comparisons, not as parts of the cultures that are compared. With these reservations in mind, we can claim that differences between cultures may be deep and all-encompassing, just as deep and comprehensive as differences between philosophical systems.

The all-inclusive character of the differences between cultures owes in part to the fact that the differences concern fundamental positions such as those defined in philosophy and in part because cultures are more or less all-embracing and integrated. The latter has the consequence that differences at one deep point generate effects in all other areas. The culture as a whole is colored by the particularly deep-seated features, features that in terms of our classification system appear as profound and all-embracing.

If we compare Baktaman culture with our own, we see, for example, that the constant presence of the ancestors, and their constant praise and blame, emerges as a profound feature. I must emphasize that my use of *profound* here is meant in relation to a Norwegian frame of reference, not profound in any absolute sense. The presence of the ancestors is an ontological trait that describes the (“factual”) character of the world. The Baktamans are thus never alone; they are always supervised. The doctrine and experience of the ancestors cannot be described adequately in a few words. One

must consider each and every aspect of Baktaman daily life and specify in which way the ancestor factor comes in as a codeterminant.

If we compare Samoan culture with our own, property becomes a key word. "This is mine, that is yours" becomes a type of sentence that acquires another cognitive meaning, is involved in other structures, and gives another content of experience than in our culture. In the West Samoan village of Manase, the Dammann family could not "own" their provisions the way people can in Norway. Their supplies were theirs in a certain sense, but not in the way they would be in Norway. Illustrative of this difference is an episode from their first days in which a Samoan woman unabashedly inspects their belongings:

Speechless with insecurity because of all that we did not yet understand, we saw her examine minutely our stock of provisions from the village and not least a stack of dry-milk boxes that we had brought with us from the neighboring island. But when she then, abruptly and resolutely, grabbed half of the boxes and wandered out again, waving her hand, we finally awoke. Full of moral indignation, we ran after her to recapture our legitimate property. She was not going to get away with theft! But all our protest was in vain. When she saw our rage she herself became serious, pointed at us, at her own palm hut, at herself, and our storage shed, patted our shoulders, and walked away. What was it that she had wanted to tell us? (Dammann 1981: 24)

Within the groups of thirty to fifty related, intermarried, adopted, and cohabiting persons, there is "communal ownership, common responsibility and work" (Dammann 1981: 26). With such a six-word, abstract characterization, one gets an inkling of the difference, but no deeper understanding since indeed *community property*, *responsibility*, and *work* are catchwords that to us have a different meaning, are included in other structures, and give another content of experience.

It is easy to emphasize that the differences in question here are universal, that they affect all relationships. More, however, is required for characterizing them as deep. It must then involve great difficulty to adapt to the foreign culture. The difficulties may be divided roughly among two dimensions as purely cognitive, purely affective, and combined affective and cognitive, depending on the experience one has in attempts at adaptation. Property is affectively loaded when the situation is of the kind exemplified above. It is presumably affectively very hard for us to adapt to communal ownership and common responsibility. Besides, it requires that things be per-

ceived in other ways. The cognitive difficulties are considerable but there is also the normative dimension: theft is wrong, morally reprehensible.

To what extent can the depth of the differences be isolated from the scope? The question is too vague for a precise answer, but a couple of examples may help to illustrate how a deep difference can be of a relatively modest scope.

If, in Manase, one points to something in someone else's home and expresses that one likes it, one receives it as a gift. The decisive feature with respect to the depth of difference from Norwegian society lies in the enormity of what one can then receive (and according to the norms should not refuse):

A little girl whose name was Norin (Nolini in Samoan) aroused the enthusiasm of the whole family. She was nine months old, had large eyes, was golden brown and lovely. Every day her mother came and placed her in our *fale* so that Jaran could play with her. One day when she was delivered, Ragnhild said jokingly, "Norin is so delightful that I think I must take her along to Norway!"

Of course she should not have said that. The next day the mother came with little Norin, her cheeks shining of coconut oil, adorned with dress and flower in her downy hair: "Please! We have talked about what you said yesterday. Now she is yours."

Good heavens, what had we done? Stammering in a desperate attempt not to offend the giver of this unbelievable gift, we eventually managed to explain that even if there was nothing we would rather do than keep her, we could not take Norin from Manase where she was so comfortable, to Norway's cold climate, which she would perhaps not endure. . . . (Dammann 1981: 27)

The episode is copiously rendered so as to make concrete the difficulties in adapting to a deeply different culture. These are such that one must comprehensively and profoundly change oneself—albeit, as a cultural anthropologist, only temporarily—if it can be done.

Cultural anthropologists sometimes write in a way that many readers misunderstand. The readers get the impression that the anthropologists pretend to be able to *understand* many widely different cultures, while at the same time maintaining their own cultural identity. What is pretended, presumably most often, concerns a limited number of schematic cultural structures rather than cultural contents.

Most likely, one's perspective on anthropology must change when one acquires an intimate understanding of a culture that is profoundly different from one's own. It is difficult to understand how an anthropologist could be

able to walk in and out as an ordinary tourist and hence keep one and the same frame of reference for his own field, so that after a dip in ten different cultures he or she could compare them within the old framework. Even a talented actor may have difficulties keeping the same perspective after performing in different dramas.

Back to Manase. Since gift situations of the kind exemplified can to some extent be isolated, the difference does not necessarily involve the culture as a whole. It is deep, but not all-pervasive. Consider an example of depth, but without maximal scope—also from Manase:

The children's importance as helpers in work is also connected with an interesting Samoan tradition.

If the exploitation of the children's working capacity goes too far, they can move to another palm hut and simply choose a new pair of parents as their closest guardians. And because the children's work contributes to the provision of food as well as diminishing the workload of the adults, they will always be welcomed with delight.

What, then, if the original parents refuse to accept the child's change of residence and come to fetch the child? Then the new parents will refer to *fa'a-Samoa*, the old Samoan customs that give the child the right to make up its own mind about where it will live. The parents will be turned away even if they have the highest chieftain-titles in the village.

This right gives the children protection, also against brutality, neglect, and injustice. In a society where the borders between the families are as diffuse as in Samoa, it is not a difficult breakup for a child to move to an uncle or aunt in the same *aiga*. (Ibid., p. 128)

If we concentrate on the right of a child to choose with whom it will live, this can to some degree be isolated as a deep difference that does not penetrate all life's conditions. This trait, however, is intimately connected with something all-pervasive about the family structure: everyone within an *aiga* has such close relationships that they border on family relations. Thereby the concept pair 'home/dwelling' is also affected. Furthermore, the work concept is affected. The parents have a right to require the children to participate in work, but otherwise they meddle very little. In Norwegian society, adults and children seldom work together, and the demands on children rise with full force outside of work.

Within cultural anthropological and philosophical literature there is today (the third quarter of the twentieth century) not much discussion of

how one could systematically compare depths of the kind addressed here. It is, therefore, worth the trouble to seek somewhat greater clarity.

Let us say that we want to know how profoundly our conceptions are compared to those we (purport to) encounter in Spinoza's *Ethics*. In the *Ethics*, part 3, note to theorem 11 (IIP11S), Spinoza says that joy (*laetitia*) is a feeling (*passio*) whereby the mind (*mens*) increases its perfection (*perfectio*). This conception of joy is explicitly used as a premise in twenty-three later proofs in the *Ethics* and in two explications (*explicatio*). If another system builder differs in his interpretation of *joy*, *mind*, *increase*, and *perfection* as these terms must be comprehended in the note about joy, then all twenty-three proofs and the two explications become the focus of attention. The possibility exists that the divergence in interpreting IIP11S has as a consequence hundreds of other differences in understanding. The disagreement in interpreting IIP11S is thereby a symptom of a relatively deep difference between the two systems.

If, on the other hand, the disagreement concerns Spinoza's definition of the essence of benevolence, the disagreement is likely to have few consequences, because benevolence affects very few elements in the *Ethics*. There is no basis for the assumption that the divergence is deep-seated.

Hence, we may take the position that the differences within the chains of justification represent an index for the depth of difference between two systems. If *A* is justified by *B* (and not *B* by *A*), then to say that a difference in standpoint *B* lies *deeper* than a difference in standpoint *A* means that: the difference yields *greater* consequences as more of the system is justified by means of *B*. The index is of interest even if the exact order of the links in the chains within a system that is well worked out logically is to some extent arbitrary.

According to part 1, theorem 14 (IP14), there can be only one substance (*substantia*), namely God (*Deus*). Only three other elements in the *Ethics* depend *explicitly* on this theorem. One of these elements is the proof of IP15, that whatever is, is in God, and that nothing can be or be conceived except by God. Implicitly, IP14 is used in substantial parts of the system insofar as a disagreement — such as Descartes's claim that there are two substances — would decimate much if the proposition were to be included in Spinoza's system. Some would say that including Descartes's claim would destroy everything. I will return to this thought, but for the time being let us assume that the theorem about joy could still stand.

A closer comparison of Descartes's doctrine of two substances with Spinoza's doctrine of one substance must, I believe, result in the conclusion that the difference is deep, although not necessarily abysmal.

The all-pervasive characteristics of a culture exclude isolation of economy, religion, and so on as parts of a culture that can be understood by themselves. The untenability of such a division is clear from other points of view as well. Consider Gregory Bateson's statement (1972: 64) that "Our categories 'religious', 'economic', etc. are not *real* subdivisions which are present in the cultures which we study, but are merely *abstractions* which we make for our own convenience when we want to describe cultures in words." Something similar applies to philosophical systems. The untenability is most noticeable when solutions to special problems are compared, such as solutions to "the free-will problem" within different philosophies. There is no precise problem that is common, because the conceptual words *free will* and *liberum arbitrium* stand in different relations within essentially different systems. The subject divisions in ontology, epistemology, methodology, and so on are expedient for our own surveys (which, of course, are part of our own system).

We are likely to find that, superficially seen, cultural differences and differences in philosophical systems have little to do with each other. This is because one *lives* in cultures, but not in philosophies. One has difficulties in adapting to cultural differences, but questions about adaptation do not arise in philosophies, presumably.

Since philosophical systems that are not fragmentary contain ethics and the many parts of social philosophy, they comprise philosophy of life and philosophy of culture—but they must not be confused with encyclopedias. They do not go into the details. The difference, however, is more formal than real in regard to comparison with cultures, for if it is not presupposed in the development of a philosophy that it is to be fit for use in practice, and hence in concrete life situations, then it becomes pointless.

Let us say that two norms in a radically simplified philosophy can be expressed by "Be honest!" and "Be friendly!" In practice, countless norm conflicts ("collisions of duties") arise. They may, as they arise, be solved in various ways. One can even, by constant modification of the definitions of *honest* and *friendly*, claim that conflicts cannot arise. The abstract, general norms "Be honest!" and "Be friendly!" lose meaning if they are not conceived to be applied in concrete life situations. Indeed, it is only through a

concrete context that a person can be judged as honest — or can be anything at all. Ask Søren Kierkegaard!

Thus, in a philosophy with abstract, general norms and hypotheses, it must be assumed that they acquire meaning in concrete life situations. Even if they do not say anything concretely about this, it must be assumed that given a concrete (singular) situation, philosophy *A* will provide guidance for a behavior that is either similar to or different from the guidance offered by philosophy *B*. Thus, the question arises, To what extent is it possible for one whose life is influenced by philosophy *A* to adapt to philosophy *B*? Moreover, in the case of philosophies, it becomes relevant to speak of more or less deep differences with respect to the kind of life that is led in terms of them.

I have up to this point dealt with the depth dimension without relating it to the question of whether comparison is possible at all. Is comparison possible except in terms of a grossly simplified semantics?

Within systems, some words and expressions are defined and others are not. Definitions often form chains: *A* is defined by *B*, *B* by *C*, and so on. Often a comparison depends on the occurrence of one and the same word, which is uncritically assumed to mean the same thing in the two systems. If it becomes clear or at least reasonable to assume — by the study of definitions or in other ways — that the word has different senses, the performed comparison with respect to subject, agreement, and validity no longer applies.

A concept 'semantic depth' with respect to a difference may be introduced by taking account of how deep-seated the difference is in the chains of definitions and the directions of precization. With sufficient depth, comparison disappears more and more.

If we then turn to a consideration of cultures as they are systematically represented in terms of the information model or Barth's model, analogous relations between deep and less deep differences may be drawn. Clearly, in the case of the Baktamans, the norms for the eight population groups' relations in ritual matters affect all aspects of their life. The norms are deep. The Baktaman world picture is influenced by them and by the ontology presupposed for the norms to make sense. A culture that has none of these norms, and of course there are many such cultures, will *as a whole* be different. The deep point-by-point differences in relation to ritual conditions

yield differences at all other points. We have no common basis for comparison. It is like looking for absolute time in physics.

Misinformation and secrecy among the Baktamans complicate the picture, since they appear to cause a general uncertainty about what is right and true.

The observance of taboo and secrecy thus takes on a new meaning, together with a restructuring of categories of purity and pollution. But this is not without profound epistemological consequences: deceit is not just an expression of opportunistic self-interest, or the supremacy and whim of senior men. It is shown to be a means to generate deeper truth. And some time, the question seems inevitably to arise: where does this end? Are there not secrets withheld in the 5th degree revelations, that create deeper knowledge for others by virtue of being withheld from me? And what about 6th, and 7th degree? Pursuit of true knowledge becomes like peeling the layers of an onion, or exploring a set of Chinese boxes: information on one level may be the deceitful cover that creates another kind of truth at a deeper level. How and when such doubts set in is hard to tell; but their eventual presence can be demonstrated. . . .

(Barth 1975: 82)

Such a strange and profound uncertainty about the innermost essence of reality is clearly a peculiarity likely to cause deep cultural differences. The same applies to the peculiar relationship between the sexes among the Baktamans, a relationship characterized by little trust. In view of the difference from our own culture, neither the concept of 'security' nor the concept of 'sex' can be taken as a point of departure for precise comparison. It is no use to reply that indeed Baktamans, Scandinavians, and all others eat, drink, and sleep and that we therefore have a lot in common. We are now concerned with how world and reality are perceived and felt.

Profound differences must be supposed to characterize the differences in *experience* of reality. The carriers of one culture can easily be imagined to be able to *suspect in which direction* the differences lie between their own culture and their experience of another culture. From this imagination to the point of actually experiencing the other culture, however, is a great leap. Is it possible at all? If it is possible, how can it be expressed?

The analogy between philosophical systems and cultures is clear: it seems possible to indicate both isolated differences and the direction in which deep differences influence entire systems, but to experience the

world in terms of different systems is another matter. It is natural here to emphasize the difference between knowledge of structure and experience. There does not seem to be any definite limit to how far one can mine the area of structural knowledge about differences, but in doing so not much is said about how far one can apprehend things in relation to experience. Structural knowledge will perhaps some time in the future be left to unfeeling robots. The question "How does the world appear to N. N.?" cannot be answered by abstract indications of structure, but perhaps it also cannot be answered by trying to *show* the world as it appears to N. N.

These sceptical statements should not be accepted without certain qualifications. They must be viewed in terms of questions—questions of degree, not absolutes. Even within a culture, indeed even within a family, there are similar limitations to insight into how the world appears "to the others," how it is concretely experienced. Here, however, we have some building blocks and elements. We can say, for example, that for my brother certain things are more threatening than for me, and we can indicate what those things are and train ourselves to perceive them as threatening. It is more difficult to take account of different second order attitudes—differences in reaction to the consciousness of being threatened. These color the very experience of threat, of course. Point by point, we must assume that we can experience the world in the same way as the others—but do these "points" really exist? When we are concerned with deep cultural differences, the distance from genuinely experiencing the other's world can be essentially much larger. The problems are not fundamentally different.

It is not unusual for people to say that this or that person or nation lives in another reality. For them, multiple realities exist. The terminology I employ distinguishes between *world* and *reality*. The expressions just mentioned will, in the terminology of this book, be rendered by saying that the person or nation lives "in another world." By "reality" I understand something that I cannot conceive to permit plural "realities." The most different cultures are all within one reality, and it is this that they seek to comprehend.

The Absolutization of One's Own World Picture

The absolutization of one's own cultural content ordinarily takes natural and innocent forms in cultural anthropology. Northwest Greenland, for ex-

ample, is the most hostile milieu human beings have ever lived in, according to Fred Bruemmer (1981: 43), but the Polar Eskimos did not *think* of it as especially hostile and called it Nunassiaq (the beautiful country). In the introduction to his work on the Azande, Evans-Pritchard (1937: 20) says that he wants to examine ideas which “though they do not accord with reality, are yet of supreme importance both to Azande and to Europeans resident among them.” He cautions his readers, however, against believing that the Azande, in addition to expressing mystical thoughts, cannot also express themselves commonsensically and act empirically. They are not in such a bad way as one might think.

The world that Evans-Pritchard refers to simply as reality, can, we presume, hardly be distinguished from the reality he himself has been brought up and trained to understand. His ideas about the opposition between mystical and commonsensical thought and between ritual and empirical action would hardly be accepted in a cultural anthropology prepared by the Azande in Azande country.

Consider another and perhaps more controversial example: Keesing (1976: 142) suggests that one reason why we do not abolish discussions of cultures is that we are inclined to strip meaning from what we call physical reality. He asks why we must talk about this shadowy hypothetical entity ‘culture’ that we can by definition never observe or document? Why can’t one simply investigate actions and events in a social system without invoking a metaphysical entity such as culture?

Keesing maintains that we must invoke such “metaphysical” entities because, for example, we cannot understand behavior without assuming that it has meaning. We cannot *measure* the difference between a wink and a twitch in the face. He suggests that much of what we perceive in the world, and dress up with meaning, is not in the physical world at all (Keesing 1976: 142). The existence of a physical world without meaning has been a feature of European cultures since the fifteenth century. In Keesing’s remarks we also find hints of a methodology and theory of concepts that are not completely intercultural or culturally neutral. These remarks, however, cannot as a matter of course be taken as criticism. We are now in the midst of the problems of system comparisons.

If one requires that the cultural anthropologist compare cultures without using his own culture as an absolute reference, then we automatically enter the problem cluster concerning “the third system”: a kind of superan-

thropology that permits one to survey the multiplicity of cultures without oneself taking a position on any one of them, indeed without being locked up in their terminology and conceptual structures.

How, then, is the cultural anthropologist to proceed? In his short paper, Barth (1977) mentions essential points about “the method,” the way to proceed. An essential step is to avoid the ethnocentric point of departure and see all cultures, including our own, from the same comparative viewpoint. As a cultural anthropologist, one’s perspective must be so broad that it acknowledges and respects the agent’s own premises as well as the researcher’s, so that each culture can be understood as a world alternative to our own.

These sentences open up enormous philosophical problems, but here I shall limit myself to a short comment. Let us designate the cultural anthropologist’s culture by A and the series of n cultures he or she describes in research by B_1, B_2, \dots, B_n . The anthropologist could presumably then be said to perform a series of descriptions (b_j): $b_1(AB_1), b_2(AB_1), \dots, b_n(AB_n)$.

For example, in terms of A (her own culture), the anthropologist notes: “Her uncle enters by the door and greets.” In terms of the agent’s own premises and world picture, however, it is no uncle in A ’s sense who enters, nor any door in A ’s sense, nor even any greeting. What then actually occurs in the world designated as B_1 ? That can only be discovered little by little (insofar as it is accessible in terms of A) through thorough and prolonged “participant” observation. Each of the descriptions $b_1(AB_1), \dots, b_n(AB_n)$, then, will gradually change in reference to the B_1 component. These changes in description, however, will have to be formulated directly (by use of *and*, *or*, and so on) or indirectly (by definitions and other rules of use for *uncle*, and so on) in A ’s language. In short, the descriptions, b_1, \dots, b_n , are registrations of life in all the cultures observed by A, B_1, \dots, B_n , in A ’s language.

One question that arises immediately is whether all cultural anthropologists must belong to one and the same culture, for example Fredrik Barth’s. If each culture can in principle produce anthropologists as genuine members of the culture, then we may envisage a multitude of registrations $b_{ij}(B_i B_j)$ written in the language of each culture. If not all cultures can produce anthropologists, then questions arise about the “fundamentality” of the cultures as well as about the intercultural status of science — to put it

somewhat abstractly for the present. This comment is only meant as a philosophical aperitif.

Back to the method, however; since the cultural anthropologist must, at least at the beginning of his studies, be presumed to be a member of some culture, he or she employs a frame of interpretation characteristic of that culture. To this frame of interpretation belong special culture-specific concepts, points of view, rules, and patterns of behavior. This at least seems to be the situation, judging from Barth's statements (1977). He writes that social anthropologists must seek, in the manner of researchers, to define their own frame of interpretation for the global cultural variation in terms of the character of the data, and preferably try to develop it (or "transcend" it) to attain a deeper understanding of reality.

The term *define* here is presumably very close to *delimit*. One must become aware of one's own provinciality incrementally — to say something in another way. The more one attains insight about a multitude of other cultures, the more exactly and deeply one can articulate the characteristics of one's own culture. Thereby, one's own culture can be "transcended" in a certain sense, but exactly which one? Does one break away from one's own culture? Does one find a more and more universal frame of interpretation?

The latter might conceivably involve anthropologists from the cultures B_1, \dots, B_n bringing forth a common language that becomes comprehensible only after study of global cultural variation. All the descriptions of the cultural anthropologists would then in principle be directly comparable, and they might even correspond.

These possibilities, however, raise enormous questions, such as those in ideology research that have been taken up by Gerrit Huizer and Bruce Mannheim (1979) and others. Can the researcher manage to stand outside each single culture? Must the researcher create his own type of culture, which has the special characteristic of being capable of acknowledging and respecting all cultures in terms of its agent's premises? This amounts to a requirement that each culture must be understood in terms of its own pre-suppositions.

It is natural in terms of a priori philosophy to reason as follows: There are demonstrable limits to the differences between cultures. In order for something to be understandable as human culture, the members must *think*, but there are universally valid laws of thought, such as the principle of contradiction. If these laws are violated, we cannot acknowledge that

thinking is present. Hence, by virtue of classifying something as a culture, we will already have claimed implicitly that the members intend to follow the same laws of thought as we do. They will thereby also have to presuppose the same concept of truth. The members of a culture, including our own, may fall into self-contradictions, and deviants may *claim* to have another concept of truth. Nevertheless, that does not affect the core of the matter: cultural differences do not penetrate so deeply that they affect logic and truth-concepts.

This view may be said to absolutize logic and truth-concepts, and insofar as one maintains that these topics are unique to our own culture and unavailable to those that are still often called primitive, it involves an absolutization of one's own culture. A very clear defense of this view is delivered by Steven Lukes:

It follows that if *S* [some assumed culture] has a language, it must, minimally, possess criteria of truth (as correspondence to reality) and logic, which we share with it and which simply *are* criteria of rationality. . . . But if the members of *S* really did not have our criteria of truth and logic, we would have no grounds for attributing to them language, thought or beliefs and would *a fortiori* be unable to make any statements about these. (Lukes 1970: 210)

This standpoint may well seem reasonable to all except two groups: (1) those who hold with Lévy-Bruhl that "the primitive" reveal "prelogical" thought, and violate the principle of contradiction, but may nevertheless be subjected to detailed cultural anthropology, and (2) those in our culture who are specialists in logic or the problems of truth-concepts.

The latter group is the most interesting from the viewpoint of this book. Just as one can distinguish between purely formal geometry, which does not say anything about points and lines, and physical geometry, which does, one may distinguish between purely formal logic, which does not say anything about whether something is logical or not, and natural logic, which does. Natural logic is not independent from what is supposedly meant when it is said that something represents "rational" thought. There are a great number of different formal logical systems, and much debate concerning which ones are most fitting as natural logics. Moreover, even among these logical systems, there are often many versions. This pluralism can be understood in different ways. The simplest one for me is to empha-

size that when we say that a set of thoughts does not violate the principle of contradiction, the depth of intention is not infinite—very different precisizations may seem meaningful. Hence, we have no grounds for postulating that there *must* be one and only one universally valid logic, although we must then add that this does not imply that they all contradict each other. On the contrary, great difficulties in principle militate against proving or disproving contradiction among logics.

In the matter of truth-concepts, the debate is just as open. Pluralism seems to me the most reasonable conclusion, but it is not accepted by all specialists.

We can conclude from this that logic and truth-concepts do not represent unique, fixed structures that constrain cultural difference and pluralism. Euro-American cultural anthropology does not presuppose one entirely definite logic and one completely determined concept of truth. Furthermore, even if it did, that would not imply that cultural anthropologists in other cultures must have the same logic and the same truth concept. There do not seem to be any a priori limitations to the differences, but neither can it be excluded that future research will not find it reasonable to assume certain specific limits.

In view of this, there is scant basis for singling out our culture's rationality, logic, or truth concept as universally valid. Such an absolutization is not justified.

The philosophical problems in the border regions of cultural anthropology are perhaps not as multifarious as may appear from the preceding. For it may be that anthropology in the first place, primarily or as a minimum, seeks to investigate *the structure of cultures* rather than their content. One lives in a house, not in the structure of the house. Now one might object that the more one counts as part of the structure, the more essential an understanding of the structure becomes for the understanding of the house. This may be the fate of "structuralism": one seeks to include so much in structure that one fails, as a researcher, to describe the content adequately. The philosophical questions concealed here are very old and are most frequently discussed within the form/content terminology.

Whatever one means about the relationship between structure and content, it is clear that cultural anthropology has enormous and fruitful tasks in the matter of clarifying and comparing structures. This corre-

sponds to comparison of the structures of philosophical systems, such as the *in se/in alio* conceptual structures from Aristotle to Leibniz; autotelic/heterotelic value in the theory of values; and induction/deduction in methodology. The more studies of structure dominate, however, the more cultural anthropology will perhaps turn into (general) sociology, or it will become an explanatory science that those who live in a culture cannot recognize as a description of their own experienced world (see Claude Lévi-Strauss's research program).

By concentrating on abstract structures, researchers may perhaps make fundamentally different cultures comparable. The "small society of Bushmen in the Kalahari" and the "metropolis of London" have, for example, some linguistic structures in common — at least more in common than the most dissimilar languages known to date. The common structures at this abstract level are, of course, not known to the ordinary members of the different cultures. One of our problems is the cultural adherence of the comparative cultural anthropologist.

Like a philosopher working with his system, the members of a culture change it themselves. Like philosophies, cultures constantly reveal influence from outside. All cultures seem to be constantly changing; and most cultures are, in spite of their differences, dependent on others. This also applies to philosophies, which are in part developed in conscious opposition to others.

Each philosophical system and each culture construed as an all-inclusive system of meanings seeks to articulate reality itself. One finds as part of any developed system a doctrine of other systems. They are at first degraded to world pictures, but then it dawns on us that indeed our own system can provide only one world picture among the many. Which world picture, then, is the one that gives a correct representation of reality? There does not seem to be a possible answer to this question. We cannot step out of our own skin. Since the individual systems do not confine themselves simply to forming pictures, but rather attempt to give a direct expression of reality, the question can also be put thus: which world is the real world?

It should emerge from the preceding that the question cannot be made more precise beyond a certain limit. Among the not very precise answers that can be given, however, I find the following: any world is real that gives an all-inclusive content of meaning; the others suffer from the unreality of the fragment.

What Kinds of Cultures Can Develop a Cultural Anthropology and How Different Can These Anthropologies Be?

As soon as a culture has contact with one or more others, attention is (unavoidably?) drawn to differences in accepted practice. This is when the beginnings of cultural anthropology emerge. The culture carriers in Azande country make expeditions to other countries to fetch oracle poison. A man who reaches the Bomokandi River is aware of differences in customs, says Evans-Pritchard (1937: 277). Quite a number of people have reached the river, obtained poison, and brought it back wrapped in *nghongborongba* leaves. This contact with other cultures has changed the Azande's own culture. Their conceptions about "the others" form the rudiments of a cultural anthropology.

One way of generating greater clarity regarding the absolutization of one's own cultural background is to try to imagine how a cultural anthropology might look within cultures that at least apparently do not have, and have not had, such a cultural product. As for the Baktamans, they have been so isolated that they have had only a few external contacts, and these have been almost exclusively limited to people with similar cultures, for example, the Seltamans. In recent years, the Baktamans' contacts with industrial cultures have increased, and their basis for developing conceptions of these cultures has expanded in step. Fredrik Barth himself has contributed to this situation. It seems clear to me that the nascent "Baktaman cultural anthropology" will differ deeply from our own, so deeply that some researchers may refuse to employ the designation. Here differences in philosophy of science are at play.

At the turn of the century, Euro-American cultural anthropology was so filled with cultural arrogance that the promoters of science hardly imagined the possibility of another form of cultural anthropology than their own. Now comparative history of science is an established field, although it tends to concentrate on a few Eastern and Western cultural traditions—Chinese, Indian, classical Greek. A pluralistic, or even possibilistic, view of research and conceptual structures in general, opens up the way to a relativization, or rather a relational view, of the conception of deeply different cultural anthropologies as parts of deeply different cultures.

Presumably, strong expostulations against approaches at variance with occidental anthropology manifest themselves even today, especially among

CULTURES CONSTRUED AS ALL-EMBRACING SYSTEMS

those who still speak of simple and “primitive” cultures. To be “primitive,” says Bryan Wilson (1970: xviii), a sociologist solidly acquainted with anthropology, is to stop being an anthropologist, “since anthropology operates according to norms and values that do not inhere in primitive society.” Many traditional societies, however, have more or less lively dealings with others, and there are therefore also traditional forms of doctrine about “the others.”

The strong position of cultural anthropology today in the industrial societies perhaps results from the fact that we maintain the dominating distinction between nature as meaningless raw material and culture as human projections of meaning into the meaningless. More uniform conceptions of nature, man, and world undermine the potential for a kind of isolatable science of cultures.

VI

Some Conclusions

In the preceding chapters, I have tried to answer some relatively precisely posed questions with relatively precisely formulated answers. However, the questions (“Which world is the real world?” and so on) with which the investigation began are themselves not precise — they are vague and ambiguous. They are compelling because they are engaging, disturbing, universal, and demanding of answers. The relatively precise answers emerge by more or less arbitrary choice of certain special lines of precization and concept creation (for example, ‘system’). Therefore, they do not cover the questions in their natural wealth of meaning. The question arises, Could I offer brief answer formulations that cover the questions without introducing so much vagueness and ambiguity? What follows are attempts at such answer formulations. In keeping with the goal, the style is simple and dogmatic.

Most of the individual, numbered conclusions are divided into two parts: where there are entries, the first one concerns philosophies; the second, cultures.

- 1a. Is it possible to say something about everything, as a few great philosophers seemingly have tried to do? Yes, one must, however, add some technically philosophical, limiting precizations of the word *everything*. This is necessary to avoid certain logical paradoxes. We must avoid letting *everything* stand for *absolutely* everything and precize in the direction of “all *types* of things, collectively.”
- 1b. Is it possible for a culture to cover everything? Yes, if reservations similar to those described for systems are allowed.
- 2a. Is there any value in seeking to formulate such an all-inclusive system or to familiarize oneself with those that already exist? Yes. A person with his sensibility intact has a way of perceiving the world,

SOME CONCLUSIONS

himself, and “everything” that is viewed as related. It is valuable to obtain some degree of awareness of this total view. Our attempts at system formulation are often reassessed when we are confronted with deeply different philosophies. For the significant number of people with an intense need for conceptually articulated total views, it is necessary to go on working with existing system attempts as points of departure.

At this juncture, too, one must add caveats and make precisizations so that absolutism is avoided. However deep the sensitivity and however intense the search for both totality and consistency, one has to account for the likelihood that some things will be fragmentary, inconsistent, and changeable over time.

- 2b. In most cultures, it is regarded as valuable to nurture an awareness of one's own culture, in part for reasons that have to do with internal oppositions and other relationships, and in part to facilitate the resolution of confrontations with other cultures. A picture of one's own culture strengthens its traditions, increases respect, and provides guidelines for changes. Just like the culture itself, the picture of it tends toward totality and completeness. Articulation of these pictures results in total views of the types classified by Jaspers.

It is doubtful that the preceding rather general and abstract statements about cultures can be made appreciably more precise without losing meaning or becoming inconsistent.

As with contradictory philosophies, cultures will contain conflicting norms insofar as deviants from a standard are characterized by an inconsistent totality. The “criminal” and the “countercultures” within a culture belong to the culture.

- 3a. Can a philosophy in a meaningful way purport to be true and binding for anyone, at any time? Yes. It is not necessary to accept a relativism with respect to validity. The statements “All standpoints are historically conditioned” and “All fundamental propositions in a conceptually articulated view of life are subjective” are examples of meaningful system statements that for certain plausible interpretations are intended to be true for any subject at any time, regardless of the historical period.
- 3b. If a verbalized, systematized direct expression of a culture contains statements about the relativity of cultural values, these statements

are to be considered as genuine partial expressions of the culture. The same applies to appended statements to the effect that the statements about the relativity of cultural values themselves have culture-relative validity. The last link in such a chain of meta-metameta- . . . statements, which represents a direct partial expression of the culture, is nonrelativized and without reservation.

This point of view is controversial. If we assume that we can step out of our culture and *consistently* see it from the outside, we delve into theories that address the possibility of culturelessness; these are not to be discussed here.

- 4a. Insofar as a system characterizes itself as one all-inclusive system among many possible ones, relativism is admitted. The pretension of being the only true system cannot be taken as absolute. The original characterization of the system can be made precise only in terms of its own conceptual net; thereby an inconsistency arises. The solution lies in moderating the pretension that “everything” is encompassed (see point 1). Attempting to sketch cultural anthropologies within the conceptual frameworks of other philosophies, thereby admitting the relative validity of the system, also leads to inconsistency. The absolute pretension of the system must be moderated, but it can pretend to be “nearly” total, which can be made precise by the relation “more comprehensive than.” This relation replaces the predicate “all-inclusive.”
- 4b. A cultural anthropology may, at the outset, state that the description of all other cultures occurs in terms of the conceptual framework of one all-inclusive system.
- 5a. Are there all-inclusive systems? Yes, those of Aristotle, Aquinas, Spinoza, Hegel, and others. By virtue of forming a sentence with the pretension of articulating something conceptually adequate in the form of a proposition, we have already pretended to have a system. Conceptually adequate articulation requires logic, methodology, and other disciplines that in our time, as in a thousand years past, dominate the system formation. These disciplines, however, can no longer be expounded and justified in isolation from other types of problems.
- 5b. A culture, as defined in this work (see chap. 5, pp. 106–16), in contrast to philosophies, is all-inclusive. It must be emphasized, how-

SOME CONCLUSIONS

ever, that cultures are constantly changing and that they cannot be “carried” by any single individual.

6. Are the five formulations that are implicitly asserted by the preceding “yes” answers true for all plausible interpretations? No.
7. Are there limits to the formulations’ precizability, to the depth of intention, and to the fine-meshedness of the net of discrimination? Yes. They have validity and adequate meaning only to some extent. There are, however, also limits to the specifiability of the limits.
- 8a. Can an (approximately) total system be expounded in a manner that is exactly and entirely comprehensible to the outsider? No.
- 8b. In the case of cultures, the limitation in both the exactness of the descriptions and the depth of the understanding appears more distinctly. No single concrete thing or event is the same in two deeply different cultures. Culture *A* is, to begin with, expounded in *B* in terms of *B*’s framework; culture *B* is expounded in *A* in terms of *A*’s framework. Constant improvement of descriptions is likely to improve and further refine understanding, but still only within limits.
- 9a. Can one give a continuously more exact and comprehensible exposition? No. Understanding seems to have to be developed discontinuously, stepwise, precisely at the most decisive dividing lines.
- 9b. Point 9 is more obvious in the case of cultures.
- 10a. Can a total system be improved? Yes, but only by internal changes, in terms of the goals and standards given by the system.
- 10b. The term *improvement* is not so apt in reference to cultures. A culture has internal oppositions and inconsistencies that constantly challenge efforts aimed at richer and more consistent development.
- 11a. Can a total system be open like a science? Yes, but the openness of the sciences also has limitations in principle.
- 11b. The openness of a culture is obvious, but where is the borderline between further development of one culture and transition to another one? Even with a very wide border area, the answers will seem rather arbitrary, even if we seek to relate them to particular, tolerably precise concepts of ‘culture’.
- 12a. Do all total systems refer to one and the same reality (in a wide sense)? Yes. Any philosophy aims to discover reality through what it states. To assume that different philosophies speak of different realities

will not help us understand the differences in what they assert. It is better to say that the pictures they provide are different. The world pictures differ and none of the worlds as pictured can be identified with reality.

- 12b. A culture (in the form of norms and descriptions) has the same kind of relation to reality while simultaneously delimiting a “world lived in”—an experienced world and a way of living.
- 13a. Can two systems be compared exactly and intelligibly for an outsider? No. The greater the exactness and genuineness of the representation, the smaller the degree of comparability. This follows from point 8.
- 13b. The same applies to cultures.
- 14a. Do systems fall within fixed categories, and can the range of variation be exactly indicated? No. The more exactly a categorization (classification) is performed, the closer a typology of systems comes to being part of a particular system.
- 14b. The same applies to cultures.
- 15a. Similarity and difference in the *structures* of systems must not be confused with similarity and difference in *content*. The content must ultimately be precized as experienced content. An exposition of a philosophy conveys how reality is as it is experienced through that particular philosophy.
- 15b. Cultural anthropology as a science needs testable statements, and these must exclusively or predominantly refer to structures. As cultural content, however, its value depends on the experience of the contents of the cultures. If this were not the case, the anthropologist could in principle be replaced by a robot.
- 16a. Results of scientific research constantly change our world picture. What does a total system do? It changes the totality. It changes everything. Scientific research changes something, but only within a philosophical framework. Intimate familiarization with a system involves incorporating a total view in which the results of research are interpreted and reflected in society. Thereby research and its results also change.
- 16b. Insofar as the results of research are intercultural, they provide guidelines for verbal and nonverbal behavior, but they do not deter-

SOME CONCLUSIONS

mine behavior and they do not delimit the individual contents of experience. Hence, as part of deeply different cultures, “the same” physics will differ in regard to content.

Over time, a cultural change has an effect on everything, including science.

- 17a. How can it be correct, strictly speaking, to say something about systems in general? It cannot be strictly correct. Language, however, may be used to suggest and guide the attention without leading it to any definite object. The statements of the general doctrine of systems, if one could give some hints about systems with such a pretentious title, cannot be precized beyond certain limits.
- 17b. The same applies with greater clarity to statements about cultures in general.
- 18a. From the idea that “much might have been different,” Leibniz and other thinkers have introduced concepts of ‘possible’ and ‘imagined’ worlds in contrast to the actual one. Does scientific research or philosophy have the means to designate some specific world as the *actual* one? No. Factuality has criteria that vary according to the standpoints adopted in ontology, epistemology, methodology, and other fields. This does not reduce the usefulness of the distinction between possibility and actuality as long as a specific frame of reference is presupposed and not taken as absolute.
- 18b. These points of view apply to cultures as well.
- 19a. Does scientific research or philosophy have the means to single out some particular world as the *real* one? No. No indicated fact can be a common point of departure for all philosophies. Furthermore, the criteria of reality contain evaluations or norms of a more profound kind than merely instrumental ones. Even if all philosophies sought to accept the same norms as points of departure—for example, the same rules of inference—this would not imply that other rules must be excluded.
- 19b. In the case of cultures, it is even clearer than with philosophies that we cannot point out one culture whose norms and world description depict reality itself.
- 20. Does this mean that human knowledge has specific limits? No. Our vague negative conclusions cannot be strongly precized without ei-

Some Conclusions

ther losing universality or becoming meaningless or inconsistent. Hence, they cannot be said to draw any definite borderline for the limits of human knowledge. We have no objective grounds for clearly delineating what the borderline should border on, and the very distinction between “real” and “possible,” as used in the preceding, is itself problematic.

The Pluralist and Possibilist Aspect of the Scientific Enterprise

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness
A Contribution to the Theory of Communication

II

Scepticism
Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?
Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise
Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict
Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence
The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument
Elements of Applied Semantics

VIII

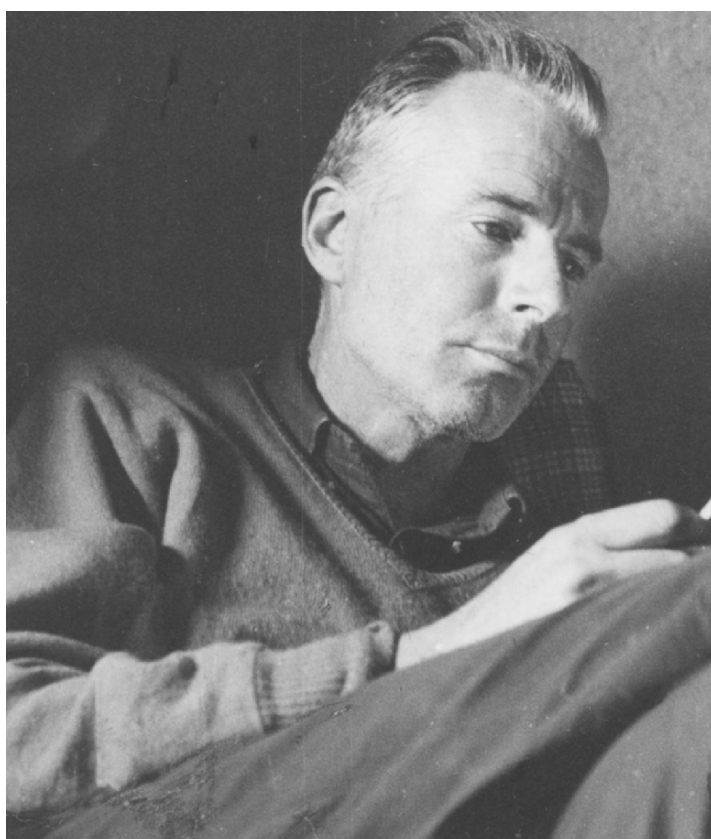
Common Sense, Knowledge, and Truth
Open Inquiry in a Pluralistic World
Selected Papers

IX

Reason, Democracy, and Science
Understanding Among Conflicting Worldviews
Selected Papers

X

Deep Ecology of Wisdom
Explorations in Unities of Nature and Cultures
Selected Papers



The Selected Works of Arne Naess

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

Revised and Edited by Harold Glasser
in Cooperation with the Author
and with Assistance from Alan Drengson

VOLUME IV

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in English by Universitetsforlaget, Oslo, and George Allen and
Unwin Ltd., London, 1972.

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>List of Figures and Tables</i>	<i>ix</i>
<i>Series Editor's Introduction</i>	<i>xi</i>
<i>Author's Introduction to the Series</i>	<i>lvii</i>
<i>Author's Preface to This Edition</i>	<i>lxiii</i>
<i>Author's Foreword to the First Edition</i>	<i>lxv</i>
I. The Impact of the New Historiography of Science	1
The Neat Image of Science	1
The New, Gaudy Image of Science	2
Impact of the New Image on Philosophy:	
Typology of Total Views	3
Claims of Refutations and the Historian:	
Echolalia or Critical Attitude?	4
Refutation Seen in Historical Perspective	9
II. Experimental Setup, Rank Dimensions, and Pluralism	13
Decisive Relevance of Experimental Setup to Testability,	
Field of Test, and Cognitive Content of a Theory	13
Narrow Contextual Testing of Hypotheses	15
A Broad Thesis on Contextuality of Testing	18
Plurality of Functions and Rank Dimensions of a Theory	26
Pragmatic-Heuristic Component of Conceptions of Refutation	38
Test of Isolated Hypotheses Practicable	41
Incomparability Due to Differences in Conceptual Framework	42
Proliferation of Concepts of Refutation: Pluralism	46
III. Theory and Theoretical Idea	51
Theories: Variety of Notions	51
Theories: Names, Expositions, Versions, and Modifications	58
Value and Function of Indefiniteness and Unsurveyability	65

CONTENTS

IV. The Unimpressiveness of Impossibilities	71
Possibility of the Impossible: “Anything Is Possible”	71
So-Called Completeness and Maturity as Signs of Abandonment	84
The Inexhaustiveness of Ideas: A Semantical Model	88
Possibilism and Permissiveness: Crazy Ideas and Connectability	89
Working with Many Theories, in Many Ways: Theory	
Proliferation and Diversity of Praxis	92
Pluralism of Methodologies: Incomparability	95
The Heuristic and Systematic Role of General Systems:	
Metaphysics, Maturity, and Stagnation	98
Intrinsic Value of Research and Science	106
V. The New Historiography Applied to Itself: General Possibilism	109
The Discontinuity of Traditions and the Resulting	
Nonaccumulative Character of Scientific Knowledge	109
The Idea of Nonaccumulative Historiography Applied to Itself	110
Historiological Pluralism	119
General Possibilism	125
<i>Appendix: Historical Note on Possibilistic Pluralism</i>	<i>135</i>
<i>Notes</i>	<i>139</i>
<i>References</i>	<i>145</i>
<i>Index</i>	<i>153</i>

List of Figures and Table

Figures

1. The many-many relation between metatheories of observation and their corresponding observed phenomena for a single theory.	23
2. The many-many relation between metatheories of observation and their corresponding observed phenomena for two competing theories.	24
3. The many-many relation between multiple metatheories of observation and their corresponding observed phenomena for two competing theories.	24
4. Levels of discrimination and preciseness.	129

Table

Types of Theories Compared	31
----------------------------	----

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

{The pre-Socratics'} attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this commitment to expand philosophy's sphere of concern to life in general

SERIES EDITOR'S INTRODUCTION

and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of what

SERIES EDITOR'S INTRODUCTION

may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bioregionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philosophical palette, not the “world” of his own consciousness as has become

the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a world-view inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our experience of the world is made up of gestalts. "[This] is the world we experience. Nothing is more real."⁴ People create abstract structures to re-

SERIES EDITOR'S INTRODUCTION

flect on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess's parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess's "ontological realism" as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of "reality is one" plays a central role in the mature Naess's approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality's concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. "As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence."⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess's perspective, such accounts by themselves are merely a sign of cultural poverty. "God" could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess's gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as "the social construction of nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particu-

lar to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibil-

SERIES EDITOR'S INTRODUCTION

ity as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his

rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative systems can be seen as very "useful fictions," which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others

SERIES EDITOR'S INTRODUCTION

as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books

or articles and find the “definitive” Arne Naess. He is a troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. “We have all read it. We *still* cheat in argumentation, but now with feelings of guilt.”¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as “truth,” “democracy,” and “private enterprise.” . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own

SERIES EDITOR'S INTRODUCTION

line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is try-

ing, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a "great idea" without Doug's generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgen-*

stein, Heidegger, and Sartre (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of environment should not, in Naess's view, play a pivotal role in shaping a budding philosopher's development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess's philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess's principal writings. As such, the *Selected Works* is the definitive repository of Naess's oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess's philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded, and should follow his questions wherever they lead.

Arne Naess, "Norway"

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemndal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or

bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and

SERIES EDITOR'S INTRODUCTION

soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small mountain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potentially influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way" — *sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

SERIES EDITOR'S INTRODUCTION

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital

SERIES EDITOR'S INTRODUCTION

concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the

content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess's 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers' intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as “*Truth as Conceived by Those Who Are Not Professional Philosophers*” (1938). A summary of this work is presented in Naess's “Common Sense and Truth” (in SWAN

VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Ustaoset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created "institutes" of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for "re-education." The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi's catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax.

Naess was greatly impressed with Gandhi's idea of trying to meet one's opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war, Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO's requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy*'s richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess's “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess's empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—

SERIES EDITOR'S INTRODUCTION

much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess's frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to "pursue non-essentials":²⁴

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO's plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess's research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into

thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a

SERIES EDITOR'S INTRODUCTION

plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects

of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation and Preciseness*, to argue that it is an illusion to assert that combined scientific and philosophical or "purely" philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of "fundamental theories" is immediately called into question. As the undemon-

SERIES EDITOR'S INTRODUCTION

strated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V), was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), "Seek complete self-realization" and "Seek truth," and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of "Self-realization!" as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to

make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is ". . . to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the

SERIES EDITOR'S INTRODUCTION

better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six “Gandhian” rules of effective discussion, which emphasize avoiding six forms of “irrelevance in discussion.”

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions taken earlier. Volume VIII includes sections on “Empirical Semantics and ‘Truth,’” “Zeteticism,” “Empiricism, Possibilism, and Pluralism,” and “Metaphysics, Morals, and Gestalt Ontology.” Volume IX includes sections on “Democracy, Ideology, and Rationality,” “Philosophy of Science,” “The Philosophy of Peace, Gandhian Ethics, and Communication,” “Spinoza,” and “Philosophical Development, Environment, and Education” (which includes an autobiographical article describing key influences in Naess’s philosophical evolution, “How My Philosophy Seemed to Develop” and an interview, “Deep Ecology and Education”). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess’s philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his “deep ecology” writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, “Nature ebbing out” (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess’s work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess’s lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical se-

mantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion, and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points

SERIES EDITOR'S INTRODUCTION

are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work entering into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a

broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach's proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans' special capacities for reason and moral consciousness come special responsibilities, particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an indi-

SERIES EDITOR'S INTRODUCTION

vidual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of

being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy) make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in

which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this approach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996).

SERIES EDITOR'S INTRODUCTION

After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manuscripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile.

SERIES EDITOR'S INTRODUCTION

Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of over-

SERIES EDITOR'S INTRODUCTION

seeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

SERIES EDITOR'S INTRODUCTION

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible "work fairies" that were constantly pulling me back to my office don't actually exist. I can't wait.

Most of all, thanks to Arne Naess for placing his trust in me—it's been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora's box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne's writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder's "Axe Handles." The last few lines read:

SERIES EDITOR'S INTRODUCTION

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess

SERIES EDITOR'S INTRODUCTION

and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess

SERIES EDITOR'S INTRODUCTION

and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.

3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.
6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter*

SERIES EDITOR'S INTRODUCTION

- 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.
17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).

SERIES EDITOR'S INTRODUCTION

20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.
24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhi's Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).

SERIES EDITOR'S INTRODUCTION

29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecology approach to ecophilosophy," the "deep ecology movement," and Naess's "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).
31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

AUTHOR'S INTRODUCTION TO THE SERIES

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was "A philosopher." In fact, I had already conceived of myself as one. I viewed the writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that "What do I mean?" is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these "ordinary" people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In

AUTHOR'S INTRODUCTION TO THE SERIES

spite of consistent proclamations that science neither would nor could take over all the problems discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard.

AUTHOR'S INTRODUCTION TO THE SERIES

Speaking with students who were writing their doctoral theses in philosophy, I understood that my knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclination very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

AUTHOR'S INTRODUCTION TO THE SERIES

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism*

AUTHOR'S INTRODUCTION TO THE SERIES

(SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity, attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

As soon as you start a scientific research project, a philosopher of science might interrupt you by saying, "Very interesting that you have implicitly made certain assumptions. . . ." You admit this, but defend yourself by saying that most of the assumptions can be tested, if deemed necessary. Naturally, the validity of the tests rests on further assumptions. The conclusion of an investigation may have the form "If the assumptions a_1 , a_2 , . . . a_n are all correct, *then* such and such." When you negate or change one or more *basic* assumptions, you will get different total views. The scientific enterprise, including the Western and the classic Chinese and Indian, is a part of a culture. So is the above sentence and so is this one. There are always "presuppositions" in such undertakings, as R. G. Collingwood noted.

Both the pluralism and possibilism advocated in this book (SWAN IV) are motivated by feelings of claustrophobia that arise in me when I read about what science is "supposed" to be. There is too little room for the function of the wild imagination. I agree with the statement "In the wild is the salvation of humanity." The wild has in many ways reemerged with the demise of the view that a rigid form of determinism was assumed and shown by science. What has become apparent is that anything can happen (possibilism), and that the world we know through experience is incredibly rich and can be described in inexhaustible ways. Our spontaneous experience is rich and diverse, as is attested by the many languages and cultures in the world. This is one reason I am a pluralist with respect to the scientific enterprise. Science as wondering and inquiring is open-ended in many ways, but science as an enterprise is a social institution with many restrictions. Studies of science and culture have led us to see that openness and creativity are basic features of natural systems and human life.

AUTHOR'S PREFACE TO THIS EDITION

The latest conceptual cage some of us have run into is that offered by Thomas S. Kuhn. It arises from the historiography of science in general. Sentences like “The history of science shows that . . .” can only express knowledge in the form of “If we assume such and such, we may validly say that the history of science *shows* such and such.” However, science as a complex enterprise is not a showcase. Moreover, as soon as you start to change any of the undemonstrated assumptions, new possibilities are seen, and then history looks different. You do not escape assumptions, but rather you live through a variation of them in a discontinuous way. You need not agree with me here. If you have time and energy, you can instruct me about some interesting assumptions I make in saying this. I might then afterward reveal some of your assumptions when you were talking about mine.

Arne Naess

2004

Author's Foreword to the First Edition

The motive for publishing the present study springs from numerous encounters through many years with people who feel coerced by “scientific results” to change their personal philosophy. They look on science as a vast machinery that produces correct views and opinions in a sort of vacuum—completely independent of its setting in a society or of the interests, motives, or purposes of those who attend to the machine, oil it, serve it, improve it, spoil it, or neglect it. There is, in fact, no such machine. More specifically, the scientific enterprise is *not* independent of the philosophic or general system-building enterprise. Only insofar as a person is autonomous and articulate enough to have value-priorities, action-priorities, ontological priorities, or views, do scientific results have a *rational* power of influencing—even drastically changing—attitudes, however basic. Only under such circumstances do the neat sentences expressing results of scientific research become sufficiently “juicy” in meaning to touch, in a rational manner, on personal situations. Otherwise, the influence is irrational—a kind of coercion, due to passivity, indifference, or simply crude misconceptions about the nature of scientific knowledge.

There is, in my view, no “scientific” worldview, no established scientific “knowledge” in senses current among those people I am talking about. Consequently, their efforts at personally creative world orientation should not be hampered by science. On the contrary, they should be able to make use of, and participate in, science—provided they “know who they are” to the extent of having at least provisionally articulated their basic priorities of valuation and action.

Because at a given time in a definite society only one or a small number of views on a certain topic are considered “respectable” scientifically, the coercion acts in the direction of conformity, spurious agreement, and

AUTHOR'S FOREWORD TO THE FIRST EDITION

other-directedness; in short, its effect is strongly impersonalizing and dehumanizing.

The sterility of the scientific enterprise in providing a worldview does not make it less interesting. On the contrary, many who turn their back on scientific activity do so through a misunderstanding and lose an invaluable opportunity for participating in a central human undertaking—indeed, one that in the long run may prove to be *the* collective enterprise of this remarkable species.

I have no great confidence in my ability to convince others of the tenability of the views put forth in this work. I feel I should stress, however, that only very special aspects of the total scientific enterprise are to be considered, namely its capacity for surprise, for unlimited novelty, and unlimited diversity of interpretation. Science has many other aspects, some of which may give the impression of inescapable, lawful development, necessity, and inevitability. It is the aim of history of science, according to one of the many legitimate conceptions of historical research, to make us “understand” that science *had* to develop exactly as it did, given the social and other forces operating at each moment. But it so happens that this monistic and totalitarian aspect is *not* the one I deal with in what follows.

With regard to the preparation of this book, I have many thanks to extend to the people who assisted me in the undertaking of this project. I am especially grateful to the Norwegian Research Council for Science and the Humanities for supporting my enterprise in its various phases since 1958, to Magisters Øyvind Baune and Nils Roll-Hansen for persistent discussion on how to make the central ideas clear, and to Dr. Alastair Hannay for invaluable assistance in making the manuscript readable to an English-speaking public.

I

The Impact of the New Historiography of Science

The Neat Image of Science

The general view of science in Western societies has been heavily influenced by certain opinions about the nature of scientific development and progress. These opinions may be briefly indicated as follows:

1. The mature sciences, such as physics and biology, are *autonomous*. Even if to some extent they answer questions within philosophical or other “nonscientific” traditions, they have now emancipated themselves for good. Philosophers may do “philosophy of science,” or better, “logic of science,” but not mix science and philosophy, neither extrapolating scientific results, like Herbert Spencer, nor crudely basing their semantical arguments on experimental evidence, such as I do. To mix science and philosophy is to succumb to a “category mistake.” There is, and must be, a discontinuity between the two.
2. The process of justification, testing, and validation of scientific theories, hypotheses, laws, and observational journals is a *rational process* to be carefully distinguished from the more erratic pragmatics and heuristics dealing with favorable conditions for discovery and invention of theories. Certain stateable, coherent rules dominate science in its supreme form—that of the systematics of science—as manifested in any authoritative advanced textbook. Scientific rationality is autonomous.
3. The sciences are *accumulative*—facts being added to facts and new, more comprehensive, and accurate theories being substituted for old ones. Theories tend to grow less different, less mutually inconsistent, and more comprehensive. This leads in the long run to a *unification* of science.

4. There is a parallel process of step-by-step *approximation to truth*. Although it cannot be directly tested, we are at least to assume there is a process of increasing confirmation, corroboration, and exactitude, sometimes expressible by increases measurable in terms of probability or certainty.

There are also discoveries that certain phenomena are physically, biologically, and so forth, impossible, adding up to an *a priori* part of science. The rest never reaches absolute certainty but attains higher and higher degrees.

As a result of this (very roughly indicated) image of science, combined with the tendency to accept that philosophical reflection is a kind of reflection *sui generis*, using logical analysis and leaving empirical investigations to the sciences, the education of professional philosophers does not generally include practical training in any science (except formal ones). This in turn strengthens the tendency to mutual noninterference and the tendency to underrate the extent to which science must be understood as a way of *doing* things. The noninterference also covers the philosophizing of scientists in what are generally considered naive “excursions” by professionals.

Compared with the history of art, religion, economics, or politics, the above image of the history and growth of science is conspicuous for its neatness or narrow rationality.¹

The New, Gaudy Image of Science

One of the first prominent historians to enter the field of history of science after World War II² characteristically opens the introduction to his lectures as follows:

Considering the part played by the sciences in the story of our Western civilization, it is hardly possible to doubt the importance which the history of science will sooner or later acquire both in its own right and as the bridge which has been so long needed between the Arts and the Sciences.

Perhaps in part as a result of the obvious influence of scientific research on the main development of warfare, one could discern in the postwar years a craving for a deeper understanding of science in its rela-

tion to general history and to modern industrial civilization. In particular, the intensive study of the history of science by professional historians or scientists with genuine historical training brought forth a wealth of astonishing details and new points of view.³

A revolutionary movement has started that still seems to be gathering momentum. With some simplification, one may speak of a *new, gaudy image* of science, stressing the human side of a human enterprise, and thus we find the rapidly expanding fields of history of science forming the main bridge between “the two cultures.” These fields provide a strong appeal to researchers in the humanities and even to professional writers such as Arthur Koestler.⁴ The development of science has become a colorful drama!

Impact of the New Image on Philosophy: Typology of Total Views

Aspects of the new image of science have already influenced philosophical research in some ways, but I suppose the main impact is still to come. In what follows, certain conclusions on how to conceive the dynamics of scientific thinking, including efforts of validation and justification, are formulated, but only insofar as they have important relations to certain philosophical positions in epistemology and ontology.

The examination is therefore far from neutral in choice of topics. I have had certain philosophical conclusions in mind during most of the argumentation. One of these conclusions is that sciences, when articulated with care, are like fragments; they constitute the most exactly formulated and interpersonally testable parts of existing, or more often potential, general views about man and the universe. Efforts to isolate “pure science” have failed and will continue to fail. Scientific revolutions, or more generally, any considerable change in scientific tradition, makes science (represented by the small elite of creative scientists) shift loyalties within the area of general (near-total) views.

History of philosophy, history of ideas, and contemporary philosophical movements furnish the most comprehensive examples and studies of general views. Philosophers who have been trained as scientists are able to make more explicit, broader frameworks of contemporary science and help work out *typologies of general views* with the ultimate aim of covering any

possible coherent total view, irrespective of whether it happens to fit in with the views dominant among the scientists of the contemporary scene. Facing the uniformities of technological civilization, the typologies serve ecological balance and diversity.

I say “typologies” rather than “typology” because the choice of categories or principles of classification (*fundamenta divisionis*) will be to some extent arbitrary. When near-total views comprise logic, methodology, and other basic fields of argumentation, their common ground, as far as it is articulated and conceptualized, diminishes, and therefore also the import of a critique of one of them based on any other. Near-total views may be considered to be valid, if coherent.

These preliminary remarks are intended simply to make it more understandable why I have selected below only certain topics for lengthy treatment and have skipped others altogether.

Claims of Refutations and the Historian: Echolalia or Critical Attitude?

As an example suggesting the direction in which the new historiography is moving, we shall discuss refutation and refutability.⁵

In describing scientific developments, part of the job of the historiographer consists in understanding and interpreting certain happenings referred to by scientists themselves in such proclamations as “theory *x* has now been *refuted*,” “this law must now be considered *established*,” or “my hypothesis is now *verified*.” The historian cannot presume that “refute,” “establish,” or “verify” mean the same to these authors as they do to himself.

Various historical questions apply to all descriptions of a theory’s loss of status. Exactly what was the relation between the theory and the *x* said by scientists or historians or both to falsify, refute, weaken, and so forth, the theory? (A relation of derivation? If so, what kind? Or perhaps a looser connection?)

Regarding the *x* itself, we find reference not only to “observations,” but to “facts,” “phenomena,” “laws,” and to other theories conceived to have been verified and now *believed* to be inconsistent with the theory or doctrine undergoing testing. The image of refutation as a simple “confrontation of theories with observation” is clearly not one that can be derived from a study of the scientific literature of the last centuries.

The disagreements among creative scientists as to the exact status of a theory at any given time makes it impossible for the historiographer to adopt the rule that a theory is refuted when a scientist with a solid reputation *in his community* says so. Application of such a criterion would often require us to announce a theory to be both refuted and not refuted, verified and not verified, established and not established, within one and the same time interval. But what of a rule telling us that a theory is refuted when *all reputable scientists who have recorded their opinion* say, or imply, that it is? This rule may be considered part of a comprehensive set of rules covering a vast number of happenings considered as normal features within scientific development itself. The rules may be roughly formulated and summarized as follows: when a presumably competent scientist says “*x* has now happened” and *x* is a normal part of the scientific enterprise proper, *x* *has* happened, and the historian’s job is not to make any critical examination or *report* it but simply to *repeat* it in his historical account (adding place and date).

Considering the scope and results of this rule, it might be called the principle of echolalia. The historian’s assessments are echoes of unanimous authoritative sayings. The historian tries to act as a mere servant, *ancilla scientiarum*, but he gets into serious trouble every time his masters disagree or there is a reversal of opinion.

A very different attitude is that of a historian who forms his own opinion as to what has and what has not been refuted, studying in detail the past situation at the frontier of science. The critical historian is in principle prepared to affirm that although this or that theory (or hypothesis) was unanimously *considered* refuted, it was not *in fact* refuted. The new, highly favorable external state of history of science permits a number of historians and scientists to delve into subjects deeply enough to take a responsible stand *within* the scientific debates of the past.

It is an important feature of the new historiography that the historian of science is considered to be just as free in his assessment of the truth-value and importance of any scientist’s utterance as the historian of politics is in relation to the utterances of politicians. Of course the historian is interested mainly in how the actors saw their situation, but he feels free to pass judgment, to declare them to have been completely deceived, deluded, in the dark. He applies the well-established methodology of textual criticism mercilessly and cynically to utterances of even the most

honored geniuses in science. Recently, the great physicists, who were active as recently as the 1920s, have been asked to “tell their own story.” Needless to say, their memories do not furnish any exact, detailed, or coherent account of “what really happened,” and the historians try to construct a survey or picture that is of a higher historical quality than that of any of the actors.

Applied to questions of refutation, the new attitude implies that if the historian can document ten scientists’ opinions (within a certain time interval) concerning the status of a given theory, his job will be, on the one hand, historically to understand and explain the utterances and, on the other hand, to offer his opinion as to the truth-value, tenability, etc., of the utterances in the light of later and contemporary development and within the framework of a definite, or several definite, philosophies of science.

The historian who has studied recently at various centers of philosophy of science knows that there are deep differences of attitude and doctrine and that any attempt to make a coherent synthesis cannot but fail to do justice to any of them and can only result in a loose, valueless form of eclecticism detrimental to both history and science.

Therefore, explicitness as to his own idiosyncracies is one of the scientific author’s greatest merits. But where it is lacking, the diligent student of the products of research will generally be able to see where the author “belongs.”

Thus, if scientist *A* has declared *T* refuted, one modern historian, *B*, may find that *T* was not refuted (in the sense intended by *A*) but merely weakened, or perhaps even strengthened, or that the test did not affect *T*. Or, more likely, *B* may accept the verdict of *A*, insofar as it refers (of course) to *A*’s own concept of refutation, but reflect that it is a different concept from his own, according to which the event referred to by *A* may bear no relation (other than irrelevance) to *T*’s refutation. But due to the radical plurality of contemporary differences in philosophy of science, another historian, *C*, accepting at least one assumption or rule or postulate that *B* does not hold, may interpret *A*’s text differently and therefore arrive at a different reconstruction of *A*’s concept (intention) or, if not that, at different conclusions concerning both the correctness of *A*’s claim (“refuted!”) and the relation of past events to what *C* calls “refutation.”

In short, the contemporary historian of science no longer feels constrained to adopt the terminology and conceptual framework of the scientists he studies, or even all of those adopted by his own contemporaries, in regard to assumptions, rules, or postulates.

It is the historian's job to elucidate the way scientists conceived their situation, introducing us to *their* conceptual framework and, if possible, to their *praxis*,⁶ but he can only do this on the basis of his own assessment of the situation, his own impression of who were the actors and what were the forces operating upon them—scientific, economic, and political. Ernest Gellner's surmise concerning societies as a whole also holds for the "subcultures" comprising scientific communities:

[T]he general characteristics of societies, their culture and their language, which enable their members to conceptualize aims and beliefs about environments, and which consequently are presupposed by special explanations, are not perhaps correctly represented by the beliefs of those members themselves. (Gellner 1968: 431)

Do we understand the printed matter and correspondence of scientists of the seventeenth century better or more poorly than they did themselves? It is tempting to answer, On the whole, more poorly. But the formidable collections now printed or available in archives make it possible to interpret each sentence of each letter in the light of the collected letters and printings. Many misinterpretations by seventeenth-century scientists are next to impossible to succumb to today. The intense prejudices of earlier times, due to jealousy and other strong emotions, are gone or weakened.

Collections of pictures and old instruments make it possible to repeat experiments under better-controlled conditions. Chemists did not work with analytically pure chemicals but with grossly impure materials. Today we often know exactly from which minerals and by what process they obtained their strange "salts" and "spirits." We are able to reproduce the impurities, and we understand better what they did and why they often got such queer results.

Yet there are, at any time, so many ideas "in the air" that are not articulated—but nevertheless influence the formulation and interpretation of words—that we must concede our ignorance or the crudeness of our guesses. And in any case, translation—at least in the ordinary sense of "translation," which means a rendering of expressions in one contempo-

rary language into expressions in another language belonging roughly to the same family of languages—is out of the question. If, for example, in the correspondence on Spinoza's experiments with what he called "nitrum" we translate the word into either the Old English word "nitre," or " NaNO_3 " or " KNO_3 " or "a mixture of NaNO_3 and KNO_3 ," or by a long phrase "the salt obtained by . . .," we get no such translation, but only a script that has certain isomorphies with the original.

The interpretation of a text from the seventeenth century will of course undergo considerable changes with time and will also vary greatly among historians with different preconceptions, interests, and philosophies. The same, only more pronounced, variation will characterize our *understanding*, more generally, of research at any given time in the past. This in turn influences our understanding of what we are ourselves doing, and therefore also of our text—which again influences our interpretation of historical documents (the hermeneutical circle).⁷

The tremendously complex genesis of our "knowledge of acids" is not a genesis of knowledge of a *definite* sort of thing, process, or substance. But we may, in terms of our present-day chemistry, plus the not inconsiderable mass of historical materials, trace a development of notions, conceptions, or even concepts that shows certain internal relations such that it is natural to say that they are all notions of acid. The idea that there is an accumulation of knowledge of acids, as defined today, through several hundreds of years, is untenable. We may, however, assert that there is an accumulation of knowledge of acid_1 , acid_2 , . . . , acid_n , where these are different notions in the past, and a stagnation in the accumulation, or even decrease, of knowledge relative to acid_{n+1} , acid_{n+2} , . . . , which are notions with no relation to research today. Decreases are possible because the term *knowledge* refers to relatively stable convictions within fairly uniform communities, not to verified hypotheses or theories. It would take an unusual amount of pessimism to believe that there has not been a *definitive* accumulation ("not-to-be-lost knowledge") concerning acids in some interpretations of the old term *acid*. But in principle, the model of growth, progress, or accumulation is such that there is no end to, and also an accumulating probability of, changes of notions and practice that result in incomparability.⁸ The model envisages revolutions, perhaps relatively often moderately deep and pervasive, though rarely extreme. But an extreme revolution breaks the previous accumulative period. (If the model

is subordinated under a certain model of social development, conclusions may be different: if it is envisaged that social conditions will ultimately be completely standardized and uniform, one definite kind of conceptual framework will be adopted and never change anymore. There will be a final revolution and unending accumulation afterward. Scientific revolutions presuppose social change.)

Refutation Seen in Historical Perspective

The following concluding remarks go no further than stating what seems clear from recent historical studies.

All that observations have furnished, however numerous and diversified, have been *instances* of disconfirmation, or *instances* of confirmation (corroboration) or support. To each instance there have normally been attached specific initial conditions or, more generally, relevant observational reports because properly trained researchers (according to the standards within a certain community at a certain epoch) are simply assumed to make reasonable evaluations of this sort. But the weight and relevance of the implicit premises for the conclusions of the scientist are on a par with premises explicitly mentioned by him.

In the light of this, I prefer in what follows to speak of “instances of disconfirmation of a theory” or “disconfirmatory instances” rather than of “disconfirmation of a theory.” Among other things, this way of speaking makes it more difficult to identify disconfirmation with falsification or refutation. One can hardly speak of there being *instances* of falsification or refutation of a theory. The “instance” of falsification makes it a false theory, and the “instance” of refutation refutes it. There is no place for, let us say, three falsifications (or refutations) and five nonfalsifications (or non-refutations) among the results of a test. But there may well be three disconfirmatory and five confirmatory instances. The “evidence” may be, in part, negative, in part positive. According to Paul Feyerabend (1969), we can dispense with confirmatory (positive) instances in science. *We can*, but why should we? Feyerabend claims that by doing so, we get rid of the paradox of confirmation in science because it refers only to positive instances. But in any case, the paradox does not concern methodology because the assessment of confirmatory instances is not (and need not be) of a kind suggested by a calculus of propositions or functions.

For example, let us examine the expression $(x) (Ax \supset Bx)$, for all x , if x has the property A , then x also has the property B . If this expression is forced on us as an *adequate* symbolic expression of a hypothesis (which it clearly is not), and if certain other dubious applications of logical calculi to nonformal languages are accepted, we will *deduce* that the expressions $Ax_1 \& Bx_1$ and $\sim Ax_2 \& \sim Bx_2$ refer to equally weighty positive instances. There is nothing in formal logic to prevent us from taking them equally seriously as confirmations of $(x) (Ax \supset Bx)$. But what is the relevance of this exercise in formal logic here?

What is more important is to test whether a sentence of the form $Ax \& Bx$ has the same relation to those of the form “if Ax then Bx ” as sentences of the form $\sim Ax \& \sim Bx$. (A test would soon furnish negative instances if the assumption can be said to be at all testable.)

Let us take an instance from research activity at the level of Gay-Lussac. From the general hypothesis that two liters of hydrogen and one liter of oxygen combine chemically to form two (not three) liters of water (as gas), we predict that the two liters of hydrogen in container C_1 will combine with one liter of oxygen in container C_2 to fill another container C_3 with two liters of water (as gas, if temperature and pressure are held constant). Suppose now that we get a confirmatory instance, as did Joseph-Louis Gay-Lussac in similar tests. Suppose further that we can limit the probable experimental error to within the range of ± 0.001 liters, or one cubic centimeter. Now why is this a *formidable* positive instance? Because previous to our hypothesis we had no grounds for supposing that the result should *not* have been, for example, three liters of water gas. Measured relative to the set of possible experimental results, the one obtained is highly special: the prediction rules out (*prohibits*) a large number of results of the operation. It would be *methodologically* nonsensical to combine two liters of water and one liter of milk and say that their combination as three liters of rather thin milk is an equally weighty positive instance (corresponding to $\sim Ax \& \sim Bx$). (If the universe consisted of only about a dozen things, however, the cases of $\sim Ax \& \sim Bx$ might be interesting.)

Our conclusion supports that of Feyerabend but dispenses with any need to deny that the presence of positive instances should not sometimes be taken as a decisive argument for continuing work with, or for adopting, a definite hypothesis (competing with other hypotheses). John Dalton fur-

nished some negative instances, but by sloppy handling of the gases. Contemporaries (unhappily) sided with Dalton, the luminary, against the relatively obscure Gay-Lussac.

Even at the methodologically uninteresting level of Baconian hypotheses like “all ravens are black,” the use of negative *and* positive evidence in any assessment of credibility is clear. Suppose *A* wishes to test the hypothesis, whereas *B* wishes to work with the hypothesis “some ravens are not black,” and they hire an ornithologist to observe as great a number of ravens as possible. Suppose he reports only black ones. The result is significant for *both A* and *B*, not only for *B*. If it is significant for the affirmation of *A*’s and *B*’s hypotheses, how could it not be significant for the negations of each of them?

My conclusion concerning the whole discussion on refutation is not “Theories are never falsified or refuted,” but rather “Theories that have long, dramatic histories may be said at any given time to have a certain status in relation to efforts of verification, refutation, confirmation, etc.” Viewed in the wide perspective of the historian of science, the changes of status are on the whole smaller than they appear to the practicing scientist. His judgments are not *sub specie aeternitatis*, but partly of local research strategy. What, to the personally involved scientist, seems to be a perfect instance of an *experimentum crucis* is to the historian but one interesting test in a potentially long series. The result, if negative, may completely undermine the status of the theory within the scientific community for even as long a period as a generation or two, but a revival is not forever out of the question. The scientist often speaks as if what was *decisive* when changing a research strategy in a given situation was a clear, impersonal proof or disproof, verification or falsification, in a strict cognitive sense. A modern historian may justifiably apply a more “voluntarist” or “personalist” terminology, perhaps one of which the scientist as well as the logician of science would vehemently disapprove.

The historian cannot distinguish consistently between (for instance) “*said* unanimously within the community of scientists to be disproved (refuted, shown to be false, etc.)” and “disproved (refuted, shown to be false, etc.),” at least not without some arbitrariness. Nevertheless the distinction is one he cannot avoid. It requires of the historian that he be explicit in *his* choice of criteria of disproof, refutation, and of other expressions of the status of a theory.

On the other hand, if one considers situations of refutation, the perspective of individual scientists may show great variation. The modern historian does try, therefore, to reconstruct *all* that “was in the air” at the moment in *all* research communities, whether expressed in documents or not. Within a particular scientific community—usually a fairly small group—there may be many things in the air: a more or less generally accepted theory formulated in a fairly definite way (at that moment); the report—interpreted in slightly different ways and involving some explicit auxiliary hypotheses—of a case of observational disconfirmation; several attempted modifications of the theory that seem to change the chains of derivations in such a way that the awkward prediction cannot be made; and several attempted modifications of auxiliary hypotheses or assumptions “disconnecting” the (unaltered) theory from the unfavorable observational report. Whatever the momentary decision of each member of the group, the multiplicity of factors will *continue* to “be in the air.” Decisions not yet published are easily revoked—a long sequence of happenings may take place before anything is published and matters are stabilized. Sometimes interest will contract and subside before satisfactory results can be reported to the community at large: the disconfirmation has been duly recorded and will be remembered, but little can be done about it. Scientists just continue applying and working with the theory—if there is no alternative at the time.

It is a consequence of the foregoing that there are no crucial experiments in the sense of experiments not only furnishing a set of negative instances, but automatically furnishing decisive and definite refutation in the strong sense of furnishing rational justification for rejection.

However, “a new look at crucial experiments” has convinced Imre Lakatos that crucial experiments can “overthrow research programs.” But it is clear that it is not the cognitive basis of this (causally defined) overthrow, the isolated negative instances, that are crucial, but rather the whole development following on the experiments. If there is no “come-back, after sustained effort . . . the war is lost and the experiment proved, with hindsight, ‘crucial.’”⁹ This is a sound description, especially when hindights are dated, so that it does not look as if there had been a definite *last* hindsight. But it does not touch on rejection or definitive refutation as a cognitive, nonvolitional notion.

II

Experimental Setup, Rank Dimensions, and Pluralism

Decisive Relevance of Experimental Setup to Testability, Field of Test, and Cognitive Content of a Theory

Contemplating the history of genetics, Bentley Glass poses a question of relevance far outside his own speciality:

The important thing to note in this connection is the effect of the overwhelming well-nigh universal acceptance of a conceptual model that explains satisfactorily all—or nearly all—of the scientific data now known. One must recall that the doctrine of the “billiard-ball gene,” the conception of the “chromosome as a string of beads,” likewise had a tremendous weight of experimental evidence in its favor and little to render it invalid or even slightly dubious, until evidence of a new kind began to accumulate in the past twenty years. Today, graduate students and young geneticists, like those of a generation ago, accept without question the *current dogma*, mould their thinking round it, and most importantly, plan their experiments in accordance with it. Is it not conceivable that, for all its virtues, the blind acceptance of a conceptual model may once again, as so repeatedly in the past, hinder the advancement of science towards a deeper appreciation of genetic relationships?
(Glass 1963: 539)

The abdication of the old model or theory in the case described by Glass was preceded by an accumulation of *evidence of a new kind*. The area of relevant, practicable tests is in general near zero in extension compared with the field of relevant tests. If there is prolonged, diverse, and successful testing within the practicable field, however small, a theory tends to be unanimously accepted. But only among those tending toward dogmatism is it considered to be *true*. The transition from acceptance of a theory while working with it—that is, when using, applying, elaborating it—to accep-

tance of it *as true* has no function in research activity. Among dogmatists it diminishes production of ideas incompatible with the theory. A certain kind of tyranny is established where dogmatists are in charge of research policy. The “life expectancy” of a theory largely depends on the rate of production of “promising” incompatible ideas and the energy with which they are elaborated and tested *independently* from the generally accepted theory.

Let us inspect in more detail the process of testing a theory, having in view the picture suggested by Pierre Duhem. It is my contention that we should make a model that takes into account all presumably relevant traits of the experimental situation (presumptions that may all be more or less misleading!). Each kind of test involves a *unique kind of experimental setup*. The descriptions of kinds of experimental setups are not part of the *exposition* of the theory, but as soon as there is a question of testing or applying it, they act on a par with genuine parts of the theory. At any given time there is a field of practicable experimental testing. The fate of the theory is in part dependent on what happens within that field. And the field is only describable in terms of families of experimental setups or designs. The clear understanding of the relevance of the differences of test operations to the cognitive content of the theory was an important factor leading Percy Bridgman toward his operationalism. Only by more or less arbitrary postulates can we be said to test “the same” things, for example, temperature or pressure when using vastly different test operations suitable for vastly different temperatures or pressures. The postulates are the bridges between molecular or quantum theory and kinds of experimental setups. A small modification of the postulates may alter the conclusion or decision; a presumably “heavily disconfirmatory instance!” may become a “confirmatory instance!”

If some of the relevant properties of the experimental conditions in given cases of testing are unknown, or if some of the relevant properties are not considered, the test is a partial or total failure. Neither confirmation nor disconfirmation ensues. In the life history of theories, this is the way that vast collections of “observations,” “data,” or “facts” drop out. Certain relevant traits of the experimental setups are no longer considered to be known, or they are considered to be known but to show lack of control of relevant variables (temperature, pressure, gravity, etc.). The criteria of relevance change, thus making whole libraries obsolete, as in the field of experimental psychology. A *critique* of the ways a theory

has been *tested* may leave the theory “naked”—that is, neither the reported confirming nor the reported disconfirming instances are accepted as relevant.

If, in this painful situation, new or improved experimental designs are not constructed, the theory is either abandoned without being “refuted”—a frequent event in the history of science—or it is heavily modified. This happened, for instance, to theories about various “experimentally confirmed” sensations in rats in the first two decades of this century. Another example is the rejection of vast collections of published data on degrees and kinds of *attention* when it became clear from more recent studies of suggestibility that the positive results of tests to a large extent reflected suggestibility on the part of the subjects. But the theories to be tested were theories of attention, not suggestibility! (Cf. Charles Spearman 1937, chapter on attention.) By considerable change of wording, the experiments *might* be taken to furnish positive instances of tests of theories on suggestibility. The weakness of this example for our purposes is that the “theories” were somewhat crude, more like empirical laws. A simpler example is the discarding of data on temperatures in the history of physics because thermometers used before certain inventions had been made were influenced by differences in air pressure.

In the case of quantum theory, a subclass of statements on experimental setups acquires a special status, as has been made abundantly clear by Niels Bohr.

[N]o result of an experiment concerning a phenomenon which, in principle, lies outside the range of classical physics, can be interpreted as giving information about independent properties of the objects, but is inherently connected with a definite situation, in the description of which the measuring instruments interacting with the objects also enter essentially. This last fact gives the straightforward explanation of the apparent contradictions which appear when results about atomic objects, obtained by different experimental arrangements, are tentatively combined into a self-contained picture of the object.

(Quoted in Müller-Markus 1966: 78)

Narrow Contextual Testing of Hypotheses

It was the contention of Duhem (1962: 188 ff.) that one cannot test an *isolated* hypothesis experimentally because in order to arrive at a definite

conclusion, one must assume the truth of other hypotheses, namely those making up the entire theory of which the hypothesis is a part.

Let H_1 be a hypothesis we intend to test, and H_2, \dots, H_n hypotheses assumed true or valid when testing H_1 , whether forming part of the same theory or not. Let the letter O symbolize a directly testable observational consequence (“methodological prediction”).¹

We can then illustrate verification and falsification of the hypothesis H_1 as follows, if S stands for H_2, \dots, H_n :

- (1) $[(H_1 \& S) \supset O] \& O$ (confirmation)
- (2) $[(H_1 \& S) \supset O] \& \sim O$ (disconfirmation)

By (1) we shall say that hypothesis H_1 gets *confirmed*. But this does not, of course, rule out that H_1 is false. And the confirmation is—if we ignore the intention of the experiments—not only of H_1 , but of a group of hypotheses. In its actual use among researchers, the term *confirmation* and similar, more idiomatic words are used in relation to H_1 even if the users themselves are perfectly aware of the role of some or all of H_2, \dots, H_n . The intention is built into the use, and only by neglecting this can one agree with Duhem.

As researchers, we *trust* H_1 if there are many and varied previous confirmations, but we may accept H_1 as a working hypothesis even if no confirmations, or only disconfirmations, are available, or if neither confirming nor disconfirming instances exist.

The formula (2) illustrates an instance of disconfirmation. According to current usage among researchers, it is a disconfirmation of H_1 , not of $H_1 \& \dots \& H_n$. That is, the definiteness of intention relative to the use is not sufficient to declare that the users clearly would reject (or accept) the suggestion that the disconfirmation is of *all* the hypotheses H_1, \dots, H_n . Cautiously I shall say that the instance of disconfirmation is of H_1 . Until further notice, I leave out of consideration the relation of the disconfirmatory process to the hypotheses H_2, \dots, H_n , since this is a separate issue.

From (2) we may conclude that H_1 and S cannot *both* be true—that is, that not *all* H_1, \dots, H_n are true:

- (3) $\sim(H_1 \& \dots \& H_n)$

This in turn is equivalent to:

- (4) $\sim H_1 \vee \sim H_2 \vee \dots \vee \sim H_n$

Whether it is H_1 or any other H that is not true remains unclarified.

In short, hypotheses are not verifiable or falsifiable separately, but only contextually, if at all. The expressions “instance of observational confirmation of H_1 ” and “instance of observational disconfirmation of H_1 ” do not refer to verification or falsification, but to the intended test of H_1 as part of a group of hypotheses from which (methodological) prediction is made. Confirmation does not preclude falsity, nor disconfirmation truth.

In the light of the above consideration, we may reformulate the Duhemian contextual principle of testing as a principle of falsification in this way: a hypothesis can only be falsified contextually, not in isolation. If we have an instance of observational disconfirmation but decide to continue to work with the hypothesis, we can justify our decision (in part) by making the ad hoc assumption:

$$(5) \quad \sim H_2 \vee \sim H_3 \vee \dots \vee \sim H_n$$

The relative strength of assertion of (5)—considered as a formula—is very little when n is big, and this suggests that the assumption is very weak.² But this nevertheless makes the case of disconfirmation irrelevant for H_1 . We can thus blame the wrong observational consequence on the rest of the test hypotheses, without necessarily specifying which of the H 's, H_2, \dots, H_n , we suppose to be untenable.

Implicit in the current usage of the term *disconfirmation* is, as already suggested, a reference to an intention: every single, definite experimental design is adjusted to *one* hypothesis, or to a group that is a (genuine) subgroup of the total class of hypotheses relevant to the test. One cannot have a design such that all relevant hypotheses are tested at once. If this were practicable, confirmation (or disconfirmation) would be confirmation (or disconfirmation) of all components taken separately.

The question of the methodological justification for (5)—that is, for blaming the unwanted happening on “the others”—can only be decided, if at all, on the basis of a study of the total research situation. What is the strategy at the research frontier at the moment? What are the priorities? Which are the interesting alternative hypotheses, if any? What can be neglected until further notice, considering the order of priorities? Making move (5) does not imply any definite *belief* that some of the other hypotheses are wrong. Position (5) may be posited as an ad hoc assumption in order to explore what might follow.

A Broad Thesis on Contextuality of Testing

I shall now propose a wider thesis of contextuality of testing than that of Duhem. His thesis is limited to the context of *other hypotheses* in the capacity of being other parts of the systematic exposition of a science. The context I shall refer to includes that of “initial conditions.” At least in part the sentences expressing such conditions do not express hypotheses belonging to the systematic exposition. The relevance of such a context has often been pointed out, and I shall only try to clarify some details.

The mass, position, and velocity of a planet at a given time must be specified before an observational prediction can be made by means of the Newtonian theory of gravitation. Any error here spoils a test of the theory. That is, if ten sentences express the initial state, the truths of all of them are presumed when the verdict of “confirmed” or “disconfirmed” is proclaimed. The formula $PV/T = r$ (P = pressure, V = volume, T = temperature, r = a constant) immediately prescribes three assertions to be tested, one stating the pressure, the other the volume, the third an indication of temperature. Considered as a hypothesis, $PV/T = r$ by its very formulation *prescribes* (at least) three initial-condition assertions.

This is all elementary. But a vastly greater number of factors are relevant to the conclusiveness of a test. In its textbook formulation, a law need not contain reference to gravitation or air pressure. But it is implicitly assumed, perhaps, that the law only holds true outside strong gravitational fields or in a near-perfect vacuum. If an observational report were to make all the relevant, more or less doubtful assumptions explicit, there would have to be a sentence reporting air pressure during the test and the local force of gravitation. Sentences of this kind are sometimes said to express the *Randbedingungen* (boundary conditions) of the test. They then include as a subgroup the specifications of the so-called *initial state* of a system, the initial-condition sentences.

Many famous tests have been inconclusive because of the uncertainty or vagueness or incorrectness of the initial-condition sentences. The researcher has had, for instance, to use very bad measurements of the size of the earth or the distance to the moon in testing gravitational hypotheses. Later some nonecholalic historians would say that the hypothesis was “really” correct but the experimental setup was imperfect, or the “constants” used were wrong. One is reminded of Newton’s temporary aban-

donment of his universal law of gravitation: he had assumed that a degree of the earth's circumference was only sixty miles in length. The measurement appears as one of the constants assumed to be correct in the description of the case tested. In other cases, a hypothesis *is not* given up. Thus, the existence of the neutron was persistently assumed in spite of strong negative experimental results. Referring to certain test situations, the discoverer of the neutron, James Chadwick (1932: 692), says: "The failure of these early experiments was partly due to the weakness of the available source of polonium, and partly to the experimental arrangement, which, as it now appears, was not very suitable." That is, if somebody *now* set up an experimental arrangement of this early kind and announced a disconfirmatory instance in relation to the existence of a neutron, one would point to certain unfulfilled requirements specified as *Randbedingungen* (boundary conditions) in later experiments. The hypothesis no longer covers experimental test situations of the old kind.

There are no rules such that one can or must pick out a definite set of traits of the experimental setup and express them in *Randbedingung* sentences. What is certainly required and what may certainly be left out depend on characteristics of the problem situation at the frontier of research, and only insiders can develop such an awareness. The novice betrays his crudeness in counting trivialities and leaving out essentials. If, say, $s = \frac{1}{2}gt^2$ is to be tested, one must of course specify in initial-condition sentences g and t , s and t , or s and g . But which special features of the mechanical setup should be mentioned? Scientists are apt to refer only to those features that they think or guess members of the research community would find particularly relevant when asking about the *quality* of the experiment. But the identity of the experiment is only in part determined by those features. The choice of factors considered relevant and worth mentioning is always in part the result of sociological guesswork.

I shall distinguish, in what follows, narrow or central initial-condition sentences from peripheral initial-condition sentences. The adjective *central* I shall reserve for the assertions related to constants prescribed by the very formulation of the hypothesis. The *peripheral* initial conditions have two important properties in common: (1) They do not belong to the hypothesis intended to be tested nor to any other hypothesis derivable from the same theory, nor do they belong to the narrow or central set of initial sentences on conditions. (2) If a categorical verdict of "confirmed" or "discon-

firmed” is made, the truth or correctness of these assertions is assumed. If any of them are false, the test is irrelevant; it has, strictly speaking, no weight in relation to the question raised (until it is perhaps calculated *how much* the state of affairs expressed by the negation of the assertions could influence the experimental conditions).³

By “initial conditions” I shall refer to the total class of central and peripheral assertions.

In different philosophies of science, opinions concerning the scope and variety of (relevant) peripheral conditions must necessarily show variation. The new historiography must be expected to accept a very broad concept. The longer the periods of development studied, and the more weight laid on periods of revolution, the more kinds of conditions will have to be taken into account. But this holds good only insofar as the new historiography aims at covering *different* philosophies of science. It calls for a neutrality that is difficult to reach, even if strongly coveted.

Referring to the conflict between cosmologies at the time of Galileo, Feyerabend seems to insist on ideas or theories of cognition being considered part of the initial conditions (in my terminology):

The Copernican view conflicts with the evidence that has been established in accordance with the older ideas of cognition and is directly compared with it. This is not a relevant test. Relevant tests must interpolate meteorological, dynamical, and physiological disturbances between the basic laws and the perceptions of the observer.
(Feyerabend 1970c: 294)

I certainly agree but might add that parts of theories of cognition that are relevant to the testing of any hypothesis whatsoever, and affect all in a similar way, might not be counted as initial conditions.

Taking central initial-condition sentences (*I*), into consideration, we now write for purposes of illustration:

- (6) $[(H_1 \ \& \ S \ \& \ I) \supset O] \ \& \ O \ \& \ I$ (confirmation)
- (7) $[(H_1 \ \& \ S \ \& \ I) \supset O] \ \& \ \sim O \ \& \ I$ (disconfirmation)

In the case of disconfirmation, our suspicion may center on any hypotheses contained in *S* or on some of the many sentences, *I*, specifying initial conditions and, of course, on the professional level of the observation itself or on the complicated transition symbolized by \supset .

We also need a formula reminding us of the importance of the truth of the description of the experimental setup. Perhaps there was no vacuum? Perhaps the light patch was due to an imperfection in the lenses?

In what follows, the letter *E* stands for the conjunction of the peripheral initial conditions. The truth of *I* and *E* is a necessary and sufficient condition for the relevance of the maximum of the experiment.

The explicit derivation of *O* is usually made without stating anything about the experimental setup. This is presumably the main reason why it is customarily omitted from presentations of “logic of science.” The sentences expressing the setup appear as an addition to the others before the decisions “confirmed!,” “disconfirmed!,” or “undecided!” are taken. We may now write:

$$(8) \quad [(H_1 \& S \& I) \supset O] \& O \& I \& E \quad (\text{confirmation})$$

$$(9) \quad [(H_1 \& S \& I) \supset O] \& \sim O \& I \& E \quad (\text{disconfirmation})$$

Any change in truth-value of any sentence expressing the test situation (the *E*’s) will result, according to (8) and (9), in there being neither confirmation nor disconfirmation. We get an “undecided!”

Theory of cognition must include theory of observation. Since the time of Hermann von Helmholtz’s discussion of the nature and limitations of scientific observation, more or less precise and careful theories of observation have been developed. But situated as they are at the crossroads between physics, chemistry, biology, physiology, and psychology (and other social sciences), these theories have not been easy to compare and evaluate.

Because of the inevitable proliferation of theories of observation, the class of observations of a phenomenon is only a (roughly) definite class (at a definite stage of the movement of the research frontier) if related to a definite theory. The classes related to different theories sometimes have, sometimes do not have, common elements. Those who subscribe to a theory of pure sense-data will tend to say that if scientists note down in their observational journals *exactly* what they observe (that is, sense-data) and then count as observed phenomena only phenomena *defined* by the observations in the journals, then there will be an invariance in the class of observations in relation to competing theories. But in spite of very advanced work in defense of theories of sense-data and in spite of related

theories of “the immediately given,” no such theories have been established. In fact they are even losing ground. So we must, I think, admit that as things stand now, there are, strictly speaking, extensive variations in the elements of classes said to constitute “the observational basis” of a theory.

Only rarely is there such a large-scale agreement as in the case of “the red shift.” Here what we *observe* are displacements of spectrum lines—that is, differences in measurable locations of lines (usually on a photograph), but because of the large number of theoretically important kinds of complications that arise when interpreting the differences, there is a general and pronounced modesty about what is said to be observed. Usually it is the displacements that are said to be observed, not, for instance, the velocity of bodies receding from us. That is taken to be an *interpretation* of a displacement.

Suppose we have a theory, T , which says that under specified conditions of the kinds $A(x)$, $B(y)$, . . . we should observe certain values of the two parameters (variables) $F(z)$ and $G(t)$. If, for instance, x and y are 6 and 8, we derive from T that z and t should be 3 and 2. In addition to x and y , there will be an indefinite number of other specified conditions—“indefinite” because of the indefinite number of elements of the class “relevant traits of the experimental (or more generally, observational) setup.” Only a few of them will be quantitative, as $A(x)$ and $B(x)$.

The recognition, identification, and acceptance of F and G as *phenomena observed* (that is, that something is such and such) depends on views, mostly unexplicated, about observation. When made explicit and precise, the views may take different forms. Let us say T_1 is the adopted form. It will be our *theory of observation*. The choice of A , B , . . . as explicit parameters of conditions depends on a set of auxiliary hypotheses, assumptions, and postulates.

Thesis: Given (1) a set of observations said to be observations of a definite phenomenon, (2) a theory said to be a theory covering that phenomenon, and (3) a set of auxiliaries used as intermediaries between the theory and the observations, then if T_1 is a theory of observation that, together with a set of auxiliaries, justifies (or permits the derivation of) the conclusion that the phenomenon *said* to be observed is the phenomenon observed, one may always formulate a workable observation theory, T_1 , incompatible with, or even incomparable to T_1 , such that it, together

with a set of auxiliaries, justifies (or permits the derivation of) the conclusion that the same observations (in the form of symbols in an observational journal) are of a different phenomenon.

In short, *what we identify as the phenomenon observed* depends on our theory, or rather metatheory, of the process of observation. Given the potential many-one relation of workable theories to phenomena said to be observed, there will never, as long as active research in the field continues, be one phenomenon uniquely pointed out by any theory.

Whether this thesis is judged tenable or not seems largely to depend on which field of research one habitually works in. For workers in psychophysics, perception, and many other humanistic disciplines, the thesis is considered true, but more or less trivial. “Tough” natural scientists tend to ignore or reject it.

Much of the importance of the thesis is due to its sobering effect: whereas the Mach-Duhem-Poincaré principle (see p. 37) stresses the many-one relation between theories and observation to be covered, the above thesis stresses the many-many relation between metatheory of observation and phenomenon said to be observed.⁴ For *a given theory* T' , the relation may be represented thus:

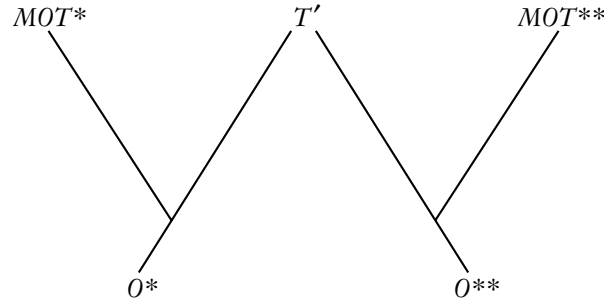


Figure 1. Illustration showing the many-many relation between metatheories of observation and their corresponding observed phenomena for a single theory.

Theory T' , combined with metatheory (of observation) MOT^* , results in O^* being taken as the observation under a specific set of conditions. Combined with metatheory MOT^{**} , the same theory under the same conditions results in O^{**} being taken as the observation. The term “observation” is here used to express something that includes the identification of a phenomenon observed (for instance, “2 °Fahrenheit,” not just “2”).

The corresponding many-many relation may, for *two competing theories* T' and T'' , be illustrated as follows:

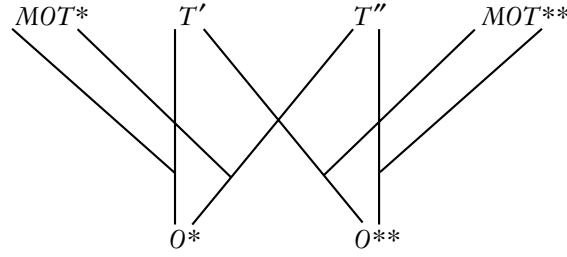


Figure 2. Illustration showing the many-many relation between metatheories of observation and their corresponding observed phenomena for two competing theories.

Here, from two mutually inconsistent theories T' and T'' , the same observation is derived. But close inspection suggests that a metatheory MOT^* is presumed. So the observation is symbolized by O^* rather than simply O . If a different metatheory, MOT^{**} , is assumed to be valid, the “same” observation must be given the form (and content) O^{**} .

It remains to illustrate the application of a metatheoretic principle of the Mach-Duhem-Poincaré type to these theories of observation. It implies that, for instance, MOT^* would not be the only metatheory that together with T' yields O^* :

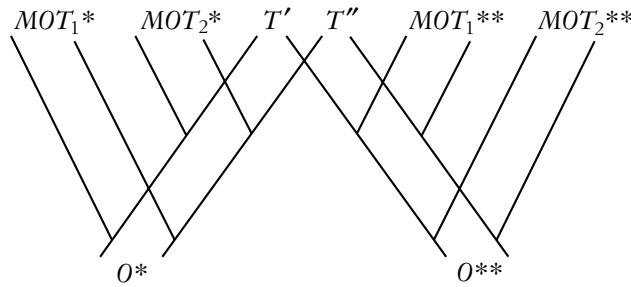


Figure 3. Illustration showing the many-many relation between multiple metatheories of observation and their corresponding observed phenomena for two competing theories. Metatheories whose names have the same number of asterisks but different indices, have the observations under consideration in common but are in other respects different. Metatheories named with a different number of asterisks cover different sets of observations.

The multiplicity of metatheories of observation precludes that we can, strictly speaking, identify a set of observable phenomena independently of a metatheory of observation. As long as all scientific observers within a field have a similar cultural background, the implicit views on observation may be expected to show small variation. Explication is often unnecessary. However, an interplanetary research team, including some strange beings from α Centauri, might pose some tough problems of metatheory.

According to the foregoing, an instance of confirmation or disconfirmation of a hypothesis by observation is only definable relative to a fairly complex conceptual structure. The relata are the other hypotheses of the theory to which the hypothesis belongs, S , the central and peripheral initial conditions, I , the sentences that guarantee the relevance of the experiment, E , and the observation theory MOT^* .

We may illustrate the above by offering the following schemata for such instances:

- (10) $[(H_1 \& S \& I) \supset O^*] \& MOT^*(O^*) \& E \& O^*$ (confirmation)
- (11) $[(H_1 \& S \& I) \supset O^*] \& MOT^*(O^*) \& E \& \sim O^*$ (disconfirmation)

Philosophers of science of so-called empirical affiliations have something to learn from the *praxis* theoreticians, for the latter do not identify the empirical with the observational. There is ample historical justification for a broader interpretation of “empirical”: the Greek word may well be translated as “experiential.” My experience as a human being includes my professional experience and all I have of experience outside my profession. I am more “experienced” in relation to certain tasks than in relation to others, and the difference reflects both personal and social conditions. Observation also contributes to my experience but cannot be severed from the rest as more basic or more certain.

“It is my experience that . . .” This locution is convenient for reference both to observations and to informal, crude generalizations and interpretations of what one has “seen and heard,” as well as to *tentative expressions of insights* that integrate both.

When more instances of observation are unlikely to overthrow a theory, more experience may well do the job. Conditioned reflex theories covering learning of mazes were undermined by broad, relaxed, critical reflections and observations on rats running in mazes. Environmental factors and the experimental designs were tentatively changed. Some theo-

rists were able to assess more clearly the narrowness of the standard conditioned reflex experimental setup. They had *enlarged their experience*. Radical criticism of the dominant conditioned reflex theories was made possible.

The expression “observation falsified or weakened the theory” can, thanks to the eminent metatheoretical work of a large number of philosophers of science, be given very precise and interesting reformulations. The expression “experience falsified or weakened the theory,” taking “experience” in broader meanings than “observation,” has not been worked on with similar admirable results. I shall not try here to change the situation. Suffice it to say that the situation calls for an integration of the empirical and *praxis* models of cognition, using the wide connotations of experience as a point of departure.

Plurality of Functions and Rank Dimensions of a Theory

What are the prospects of fulfilling the purpose, the intended functions, after a negative result of the test of a theory? What are the alternatives? Are other theories available? If not, what is the prospect of creating alternatives?

Perhaps the scientist, if he is of an unusually articulate subspecies, can list, say, ten functions relevant for him and make up his mind about the change in the prospect of the theory’s fulfilling those functions after the setback. If philosophers of science were interested in honest, down-to-earth investigations of reasons why individual scientists abandon or continue to work with a theory or a hypothesis, they would have to start with such reasons mentioned by the scientists themselves and then start trying to classify, simplify, and criticize.

Incidentally, a methodologist of social science, Johan Galtung (1967: 459), lists ten dimensions of theories, all of them “rank dimensions in the sense that they can be used to evaluate theories”: (1) generality, (2) range, (3) status of individual hypotheses, (4) formalization, (5) axiomatization, (6) relations to other theories, (7) predictability, (8) communicability, (9) reproducibility, and (10) fruitfulness.

Some readers might look for “testability” as a dimension. It is indirectly taken into account by (3). The rank dimensions of hypotheses are said to be: generality, complexity, specificity, determinacy, falsifiability, testability, communicability, reproducibility, predictability, and tenability.

It should not be necessary here to discuss the number and kinds of rank dimensions of competing theories. Suffice it to remind ourselves that the intricacy and many-sidedness of the functions of a theory necessitate *a whole range of questions being asked* when assessing the status of a theory; insofar as these questions allow for improvement in interpersonal preciseness, they are best thought of as part of a comprehensive questionnaire. The pretesting of the questionnaire would probably result in eliminating such predicates as “works well,” or “is simple.” Very different abilities are placed together under the heading “works well,” and “simplicity” has recently been used in too many senses.

With ten rank dimensions, not necessarily those suggested by Galtung, ten competing theories may all score differently, each scoring satisfactorily in relation to some dimensions and unsatisfactorily in relation to others. In lively research communities, the comparative status of a set of competing ideas will show variation over the years. The action to be taken on the part of the active researchers in the face of this complex situation cannot easily be one of simple acceptance or rejection but must be considered within a long-range research strategy, with distant moves dependent on feedback from previous moves.

Today scientists work mostly in groups that belong to larger communities. Whether one drops a theory depends very much on what others do.

Why is it necessary to remind ourselves of the bewildering multiplicity of rank dimensions of a theory? First of all, because in this century ingenious but simple models on the metalevel have been worked out and then mistaken for reality—or at least have been discussed as if they pretended somehow to cover the actual function of theory choice. One cannot doubt the central importance in metascientific queries of simple models and rational reconstructions in general, but mistakes as to their operation (and limitation) may prove fatal to metaresearch. “Hypothetico-deductive method” is a name for models that have been mistaken for single descriptions.

A very weak disconfirmatory instance may, under certain circumstances, be a *conclusive or decisive* factor in rejecting a theory. The scientist decides to *stop working with it*. In the background of the simple words “He rejected the theory,” or “The theory was now abandoned,” there is, of course, a complicated *praxis*. Sometimes these words just mean that *for the moment*—that is, within a definite subsection of a research program a sci-

entist finds the prospect of work on the theory unpromising—or they may mean that a competing theory, which has already been worked out to some extent, seems much more promising to him in that particular work at that particular time. But at the same time others may find applications for the abandoned theory, acknowledging that it yields excellent predictions within many fields and may still be a potent source of inspiration when contemplating possibilities of new theories. (Cf. Bohr’s “Correspondence Principle” as a guide for the imagination.)

Scientific research is a search for truth, but this does not imply that the range of properties of rank dimensions of scientific theories is intuitive and uncontroversial. A drop in strength of assertion increases, or at least cannot decrease, chances of truth. But in spite of this, superior strength of assertion is taken as an argument *for* a theory, not against it. It figures prominently in rank dimensions. “Simplicity” is controversial: some take it to be part of an adequate set of rank dimensions; others do not (the disagreement is somewhat less than it seems because of semantical confusion). The dimensions must “have to do with truth,” but must also “have to do with search!”

It is of course an important goal to arrive by rational discussion at one single set of rank dimensions as the supremely adequate one in a particular historical research situation within a particular field.

But the prospect of this noble goal should not prevent us from admitting that we are very far from realizing it and that the best thing to do at present is to clarify discussion on criteria, connecting the disconnected strings of argumentation, to make key terms (“simplicity,” “observation,” “fact”) more precise in various directions, to refine the network of distinctions, and to deepen the range of explicit assumptions all the way down to fundamental ontological and other philosophical positions.

In judging the relative validity of proposed priority lists for rank dimensions of a theory, one has to take into account the typology of the intended main functions of theories. After all, most original and important innovators in science have their own way of conceiving the function of their theorizing.

A survey of broad theories, or rather systematizations, in the field of (theoretical) psychology in the 1930s suggests that they may be ranked according to a variety of traits deliberately fostered by the theoreticians. In the table on page 31 the systematizations are compared and ranked in

an intuitive way. The numbering of the following items corresponds to those of the several columns of the table.

1. High level of (verbal) explicitness and unambiguity as regards assumptions, and clarity as regards implications, whether genuine or not. (Conventional criteria—include, for example, prestigious physiological, physical, or mathematical terms and an abundance of “if . . . then . . .” and “according to that . . . this . . .” statements.)
2. Extent of the field (of possible predictions) *claimed* to be covered by the theory. (For example, certain experimental results, learning, and adaptive behavior.)
3. Unambiguousness in *practice*—that is, for use by independent observers: consistency of estimated implications by observers with different terminological or general ideological idiosyncrasies.
“Cooperational efficiency”: Suppose an observational report obtained under specified conditions is given. The greater the number of independent users who arrive at the same conclusion as regards the question of whether the report (1) is irrelevant to, (2) strengthens, or (3) weakens the theory, the greater the cooperational efficiency.
4. Extent to which we assume cooperational efficiency to have been due to factors other than positive transference among members of an ingroup. (We assume that in view of the absence of extreme degrees of clarity and rigor in any existing theories, consistency of implications is achieved by direct adaptation and “*Gleichschaltung*” of speech habits between members of the group.) If members of an ingroup are bound together closely by common slogans and habits of exposition and inference, the expansion of the group will make the theories cooperationally more clear because of the greater percentage of psychologists tracing out the implications in the same way. Thus, a minus in column (4) but a plus in column (3) means that the relatively high degree of cooperational efficiency is to a small extent reached by factors other than transference among members.
5. Ease with which an outgroup (a group of competing theorists or people with some training in psychology who do not belong to a definite theoretical group) can distinguish programmatic state-

ments and slogans from other statements, and the ease with which it is possible to separate programmatic (anticipatory, propagandistic) components of the meaning of a statement from other components. If reports of experiments are couched in a terminology toward which certain groups are hostile, this will make it difficult for members of these groups to see anything other than the odious terminology. The way to an understanding of the experiments and the results is thus made more difficult than would seem necessary. Another example is where propaganda by means of general slogans and broad methodological declarations is mixed so perfectly with specified descriptions and interpretations that outsiders do not know what is “serious” and what is “show.”

6. Extent to which predictions have been made from the theory in a cooperationally efficient manner. Same unit of measurement as under (2).
7. Preponderance of successes (verified predictions) among the predictions mentioned under (4). *Post-festum* predictions (“This result is just what I would have predicted from my theory if you had asked me”) are included if backed by those other than the author of the theory.
8. Author’s preference for concepts taken from the realm of “low-level” (*l*) behavior or “high-level” (*h*) behavior. (Examples: physiological behavior, stimulus mediation—low level; level of descriptions of behavior in the vernacular—high level.)
9. Type of methodological rationalization in cases of asterisks in column (8): *P* \equiv salvation of psychology as a science by low-level approach by “reduction” of high-level descriptions to low-level, by looking for possibilities of extension of physiological (ultimately physical) laws in the realm of high-level behavior. *C* \equiv salvation of psychology by finding laws (at least high statistical correlations, as in chemistry) that hold for high-level behavior, by adaptation of conceptual framework to the exploration for such “invariants.” Belief in ultimate reduction to low-level as explained under (7). *A* \equiv extreme antiphysiological attitude by stress upon the necessity of using sociological (or very high-level) descriptions of behavior in every case of specification of test conditions for a theory, whether the theory is conventionally called physical, physiological, or psy-

chological. Disbelief in reduction of high-level laws to low-level laws. Integration of science “from above.”

10. Emphasis in actually accomplished research on:

$L \equiv$ rigor. Theorem producers.

$F \equiv$ extent of field covered, imaginative (exploratory) fruitfulness of system. Hunch producers.

$S \equiv$ significance for social problems and reforms (rather than for “academic” problems). Social-argument producers.

The table below shows my scores of psychological systematizations from various points of view. A score of – means a small amount of the trait scored, + means a fair amount, and ++ means a large amount. An h means the system starts from “higher-level,” or “molar,” concepts; l means the system starts from “lower-level,” or “molecular,” concepts. An * means that the h or the l is especially stressed by the author of the system.

Types of Theories Compared

Brunswik	Theories on thing constancy
Freud ₁	Theories on psychoneuroses
Freud ₂	Theory according to which interruption in verbal reaction in the psychoanalytic situation is due to suppression rather than to lack of associations
Hull ₁	Gradient of reinforcement (goal gradient hypothesis)
Hull ₂	Revised mathematico-deductive theory of rote-learning (1939)
Lewin	Theory of psychological forces (1938)
Piaget	Studies on the cognitive development of children
Skinner	“Average” theory of <i>The Behavior of Organisms</i>
Thurstone	“Average” rational equations, theory of primary factors
Tolman ₁	Scheme of operational psychology (in his presidential address)
Tolman ₂	Sowbug theory of VTE (1939)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Brunswik	–	++	–	+	–	–	+	h^*	S	F
Freud ₁	–	++	+	–	–	–	+	h		S
Freud ₂	+	–	+	–	+	–	+			
Hull ₁	+	++	+	–	+	–	+	l^*	P	L
Hull ₂	++	–	++	++	++	–	+			
Lewin	++	++	+	–	–	–	+	h		F
Piaget	–	+	+	+	+	–	+	h		F
Skinner	+	++	+	–	+	–	+	h		F
Thurstone	++	++	+	+	++	–	+	h		L
Tolman ₁	–	++	+	–	–	–	+	h^*	S	F
Tolman ₂	+	–	++	+	+	–	+			

As seen from the table, none of the theories considered has a + (or –) in every rank dimension. All of them have some advantages and some disadvantages. This suggests the complexity of choosing what theory is most promising. It also emphasizes the importance of establishing explicit value priorities in order to rationally reconstruct a policy choice.

But the creative scientist need not, of course, experience anything comparable to a cold *pro et contra* deliberation centering around a number of rank dimensions. This might happen, but usually the decisions for or against particular possibilities to theoretical solutions of a problem are experienced as violent “true or false” intuitions. Relevant criteria are closely connected with the special topic at hand, and not experienced as abstract principles applied to a concrete case.

Theories help us “solve problems.” This means first of all that we obtain understandable, integrated answers that address sets of burning questions—it is primarily the *kind* of answers we obtain that we use to judge the efficacy of the theory. How “certain” the solution is, is of course also a matter of consideration, but if the theory is not completely without zones of testability (cf. Einstein’s criterion) it is acceptable. When it is said that Schroedinger’s wave equation “completely solved” *the problem* of atomic hydrogen, what is meant is that questions covering the spectacular behavior of atomic hydrogen in electric and magnetic fields, questions relating to its spectral lines, and practically all other questions raised *at a certain time*, were answered by using Schroedinger’s equation. Where experimental checks were possible, they were fairly successful, but if some serious discrepancies had been found, they would most likely have stimulated theoretical interest rather than made physicists “reject” the theory (of which the equation was a part).

The expression “*x* completely solved the problem *y*” might suggest that if *x* is a theory it must show a high level of observational confirmation or rank very high on all dimensions. This need not be the case. Schroedinger’s equation was “just what one was looking for,” but looking as active researchers, not as bureaucrats of so-called knowledge. It answered a definite series of “why’s” that had been asked about the hydrogen atom and “addressed” most of the relevant observational data.

To try to construct metatheories of verification and falsification or confirmation and disconfirmation that would justify a decision to reject or adopt a theory implies a neglect of heuristics as an integral part of the

dynamics of theories. There is no separate cognitive or epistemological dimension such that if it is not reached, the theory should be rejected in research, whatever its merits on heuristic dimensions. And in speaking of the scientific enterprise, it is research, not knowledge, that is crucial.

Karl Popper (1963: 228) and others have worked toward the establishment of a criterion that would enable (genuine) science to be demarcated from pseudoscience.

Psychoanalysis is considered by Popper to be a pseudoscience. But at the Institute of Human Science (Yale), psychoanalysts and behaviorists, inspired by C. L. Hull and others, successfully collaborated in translating some of the ideas of psychoanalysis into a more testable form. There has never been anything definitely “wrong” scientifically with psychoanalysis as a whole, perhaps only some persistent weaknesses. For an excellent survey of the questions, see B. Christiansen (1964). If one wished in all seriousness to disqualify psychoanalysis, one would have to criticize definite published psychoanalytic hypotheses defended in quotable papers, as Popper always does when commenting on physicists’ hypotheses. There must be a fair trial. It is perhaps unnecessary to add that if such a confrontation is made, any clear-cut demarcation formula is apt to break down.⁵

From the point of view of social development and the free society, genuine science seems, through its influence, to be more of a threat than the hundreds of sects that firmly believe in what Popper or Lakatos would call pseudosciences. The sects counteract uniformity and other-directedness and have no chance of establishing thought monopolies. Small-scale irrationality is of little importance compared with the global irrationality created by dominant “scientific” worldviews fostered by “genuine” science. There is a “competitive-selective aspect of a methodology” (Spinner: 1968), but to win is to win in relation to a worldview, not to *any* worldview.

The insistence, in the abstract, of the fallibility of science has increased the prestige of, and confidence in, science, not diminished them. But more than anything else, perhaps, we need courageous proclamations of values that are different from those said to follow from a rational, or even scientific, world outlook.

The enemies of a free society are to be found today in quite other directions than in the 1930s.

According to Popper (1968: 91), “science often errs and . . . pseudo-science may happen to stumble on the truth.” If this happened more and more frequently according to those who were applying Popper’s criterion of pseudoscience, would it never be wise to move the line of demarcation? Surely it would, and the effect of a few moves would be to lower the pretensions of the demarcation so that, for instance, it was used only as a basis for issuing yearly bulletins about what looks most scientific at the moment in relation to theories adopted within specified communities of researchers.

Lakatos continues Popper’s program of elaborating “objective and critical standards of growth” of natural science, especially physics. The aim is in part to advise the scientist and to give him a measure of what is good and what is bad, or at least of what were the good and what were the bad decisions in past research work. If the critical standards are followed, a high rate of growth is to be expected, and if not followed, one can expect a low rate or stagnation. The details of Lakatos’s proposals can only be understood by careful analysis of the “Popperian” approaches within the “logic” of research since 1934.

Here I shall only state some conclusions from the study of Lakatos’s recent papers (Lakatos 1968a, 1970):

1. The criteria of whether a theory *or* a research program or a hypothesis *should* be abandoned (until further notice or finally, in part or in whole, by all or by some) are local in character, both in space and time, and highly tentative. There are no general rules or standards (except very trivial ones).
2. Study of past decisions (concerning abandonment) reveals astonishing, unpredictable revivals (rehabilitations) of theories that were universally abandoned for very good reasons in terms of Lakatos’s own standards.
3. Great scientists have tended to avoid shifts or changes in theories that had little prospect of “producing” new and astonishing facts—sometimes, however, one had to wait very long for such happenings.
4. Proliferation of theories, etc., serves scientific growth, but one should note (temporary) successes and setbacks and abandon them neither too early nor too late.

5. If carefully reconstructed historically, decisions to abandon theories, etc., are on the whole rational. I take Lakatos to mean that there are grounds and reasons for the decisions that we find intellectually understandable and correct.

These conclusions formulated with the use of a minimum of technical terms are important in supporting our pluralist and possibilist views. It should be noted, however, that the aim of Lakatos is not to support or attack such views, but to solve demarcation problems.

The very complexity and tentativeness of Lakatos's normative and descriptive demarcating formula suggest that research policy might be fruitfully studied in a wider frame than that which he adopts.

Research programs in natural science are today perhaps more than ever bound up with technical questions such as: what kind of machinery is available and at what cost? Program *A* is technically so costly that the competing programs *B* and *C* must be given up if *A* is chosen. Or, theory *A* suggests rich possibilities of tests and new facts but is very costly, whereas theory *B* requires practically no apparatus, but (highly tentative) estimates of what will be found are somewhat less optimistic. Further, decisions on research policy affect human values through pollution, degrading use of persons in experiments, etc.

These and other factors strongly influence the *rationality* of research policy. Standards of rationality depend on value priorities, individual and collective. There is no autonomous "scientific" policy.

The intellectual interest of two researchers or two research communities may be systematically different: for the first, high technical and logical achievement is a paramount value; for the second, there is broad interest in the objects of research (for example, climates, fossil animals, and particular classes of numbers). It is *rational* to pursue different research policies in the two communities.

Research as an activity cannot be rationally independent of the rationality of individuals, groups, robots, or communities pursuing research. One may construct an ideal of research inhabiting "the third world" of Popper and Lakatos such that research follows a set of rules—for example, maximizing the rate of growth of scientific results of certain kinds. The *effectiveness* of actual research may then be measured relative to the ideal. But I think one should be careful not to identify rationality of research

with any ideal that takes research as a completely autonomous activity and postulates one particular measure—for example, rate of growth of certain kinds of results. Rationality should be measured, if at all, in relation to maximally wide systems—that is, systematic philosophies.

Research policy may be rational even if “maximization of scientific rate of growth” has a very low priority. Lakatos sees a threat to rationality in Feyerabend’s hedonistic proclamation “Do as a researcher what you wish and have a pleasant time” (Feyerabend 1970a)⁶; but *if made explicit*, requirements of joy in research need not lower rationality, only effectiveness. Continued tests of theory *A* may be found excessively tedious and abandoned mainly for that reason. The shift to other theories may in this case be perfectly rational but it is clearly against an effectiveness-promoting rate of scientific growth. Scientific enterprise may show continuous rationality under variation of effectiveness or continuous effectiveness under variations of rationality.

As described by Lakatos, a researcher, in order to be rational, seems to need unusual intellectual brilliance combined with narrowness of vision and interest. Why can’t a rational researcher be of moderate intellectual ability and pursue his research in the spirit of an amateur or of a man *primarily* devoted to social reform, not to science?

Human interests, passions, and idiosyncracies do not necessarily interfere with the rationality of research. Rationality means primarily rationality of decisions. If a researcher consciously and deliberately chooses a theory in part because testing it necessitates a long-desired journey to the Antarctic, it may reduce effectiveness (for example, speed of growth of research, number of new astonishing facts), but his research as a human activity is more rational than if he chooses the same theory under the illusion that it necessitates a trip to Africa.

At this point it might be clarifying to examine a well-known pronouncement of Willard Quine (1953: 43): “Any statement can be held true come what may, if we make drastic enough adjustments elsewhere in the system.”

As a slogan, a jubilant expression of freedom in theorizing, this sentence has great value even without accompanying explanations. From the point of view of scientific research, however, something should be added: “holding true” does not imply, in research, entertaining a belief as true, but treating it as if true, acting or deciding in a way that would not be dif-

ferent *if* one considered the theory true. Further, it might be added that in research we only make drastic adjustments *for a limited purpose*, and they are all *revocable*. And sometimes we need not bother making adjustments, because “Is it *true*?” is a rare question in evaluating theories.

Looking back at the history of such famous theories as those on acids in chemistry or on light in physics, perhaps much faster progress could have been made if some scientists had not tended either to accept them *as true* or reject them *as false*. A more differentiated strategy, applying “drastic adjustments” in the face of major setbacks from observational disconfirmations, would have kept alive—that is, kept up to date—more *theoretical alternatives*. Such a strategy could have made it much easier to compare the virtues of different theoretical approaches.

Suppose that from a well-established theory we derive the statement that a certain kind of event is physically impossible (for example, that, according to Einstein’s theory of relativity, it is impossible to increase the speed of a material particle from a level under the velocity of light to a level at or above that limit). From a wider perspective we may nevertheless accept it as physically possible—that is, from theories constructed by modifying at least one sentence in an exposition of the original theory without changing the level of observational confirmation and positive relations to other (established) theories. That we can always do this is part of what is asserted by a metatheorem we shall call the Mach-Duhem-Poincaré principle, which is briefly formulated as follows:

Given a set of observational sentences, a set of theoretical sentences incapable of direct observational test, and sets of initial sentences such that the theoretical sentences joined with appropriate parts of the initial sentences permit derivation of the observational sentences, there are indefinitely many other, mutually incompatible, sets of theoretical sentences such that the given set of observational sentences can be derived from them. The expression “there are” may be replaced with “if n sets are available, it is possible in practice to construct a set $(n + 1)$ fulfilling the conditions.” “Incompatible” is used in a wide sense: there is incompatibility if there is at least one observational sentence derivable from the one set that contradicts an observational sentence derivable from the other.

But, it might be objected, there is no *guarantee* that such a variety of *nontrivial* theories can be found. And even if they are, the modified forms may not be acceptable to researchers as ones they could *work with*. These

objections do not hit the mark, because the *possibilities from wider perspectives* do not pretend to be as, or even more, acceptable to the active researcher within his specialized sphere of theoretical activity. The widening of perspective has an importance independent of any such pretension.

Pragmatic-Heuristic Component of Conceptions of Refutation

The picture of the test process given in chapter 2, pages 20–21, seems to indicate that there can be no refutation without the assumption that each member of the set of initial-condition assertions, *I*, can be conclusively *verified* as part of the test procedure. Many of the members normally have the character of conjectures, perhaps refutable, but scarcely verifiable. And what is worse, it is to a large extent arbitrary how many assertions are included in *I*.

The absence of refutations does not harm the development of research, because rejection or acceptance (of working theories and hypotheses) does not depend on refutation. The *justification* of a decision to reject or continue work with a hypothesis is given by answering a long series of questions on its status. The situation as regards instances of observational disconfirmation is only one factor.

The position that there can be no conclusive refutation, however, is misleading. The formulae have been adapted to the contemporary two-valued logic of truth and falsity. But as used by scientists and historians of science, the terms “verify,” “falsify,” “refute,” “establish,” and other terms closely related to the process of testing *theories* have not been narrowly tied down to the true/false distinction of formal logic. Only compelling reasons should make us depart from this kind of usage. The instrumental aspect, the functioning of a theory as a tool in research, has always been a consideration when assessing the weight of a confirmation or disconfirmation, by observation or by theory. Thus the borderline between acceptability and unacceptability, between the status of being established and being not quite established, between conclusive and not conclusive confirmation or disconfirmation, between tenability and untenability, has no definite relation to the distinction between “established as true” or “not established as true.” Here I am tempted to quote Ernest Nagel extensively and approvingly:

The use of theories is one patent factor in reflective inquiry. . . . Reflective inquiry is instituted for the sake of settling a *specific* problem, whether it be practical or theoretical, and inquiry terminates when a resolution of the problem is obtained. The various procedures distinguishable in inquiry (such as observation, operation on subject matter including the manipulation of instrumental symbolic representation of prophetic of subject matter, symbolic transformation and calculation, etc.) are to be viewed as instrumental to its end product. . . . Accordingly, in their actual use in science, theories serve as *instruments* in specific contexts, and in this capacity are to be characterized as good or bad, effective or ineffective, rather than true or false or probable. Those who stress the instrumental function of theories are not necessarily committed to identifying truth with effectiveness and falsity with uselessness. Their major insight does not consist of denying the meaningfulness of certain types of inquiries into the truth of theories but in calling attention to the way theories function and to the safeguards and conditions of their effectiveness. (Nagel 1960: 264–65)

These quotations, taken from Nagel’s “final remarks” in his paper “Probability and Degree of Confirmation,” point to a restrained instrumentalist view that does not commit its advocates to identify “falsity with uselessness” and, I would add, that does not identify rejection of a theory with rejection of a truth or confirmation claim.⁷ Having in mind how theories function within the tremendous complexity of the total research process, it is clear that the introduction of ad hoc auxiliary hypotheses, the ad hoc changing of assumed truth values of some hypotheses (some H_i ’s), or of some statements of initial conditions or of experimental setup (some I_i ’s and E_i ’s), may very well be part of an excellent research policy; such actions need not reflect any diminished attention to intellectual honesty or love of truth. The passage quoted from Nagel becomes misleadingly instrumental only if we ignore his careful wording: “[T]heories serve as *instruments* in specific contexts, and in this capacity . . .” He does not say (or imply) that theories do not serve in other capacities.

Feyerabend has argued convincingly how certain hypotheses that are false and inconsistent—which the scientific community, for good reasons, accepts—may nevertheless function as the nucleus of condensation for new kinds of evidence and the construction of new sets of interrelated hypotheses. Perhaps only after several generations, these hypotheses become corroborated and consistent to a degree comparable to the hypotheses that they supersede.⁸

There is nothing paradoxical about new insights or the building up of a new (or old) theory sufficiently remote in content from the dominant one, starting from a basis that may seem ludicrously slight from the point of view of the dominant theory. The scientist who goes against the dominant trend must *trust* or, if of a cooler temperament, at least “presume ad hoc” the emergence of new kinds of evidence and interrelations. There can be no rational basis for this kind of trust or presumption as judged from internal standards of research. The scientist develops and elaborates a “mere” *possibility*. The rationality, in a narrow sense, of his choices can only be argued in retrospect, if at all. But, as we shall argue later, criteria of rationality may be introduced relative to wide philosophical systems.

It is perhaps the greatest merit of the new historiography that it encourages *both* stubbornness in face of near-universal, rationally argued resistance within the scientific community and the legitimacy of an “orthodoxy” in the sense of continued work with a definite “traditional” theory and practice as long as no alternatives are in the making and in spite of disconfirmations and paradoxes.

The foregoing arguments in favor of stubbornness concern new theories. They should be generalized, however, because in a very vigorous research climate, all theories have the character that we have attributed above only to new theories. When there are no “resting places” for theories because research is carried out in all directions at once, the shortcomings of any theory are revealed more easily and more frequently. There is a continuous stream of evidence and counterevidence. Theories that from a superficial or narrow point of view are “refuted” are, under favorable circumstances, kept up to date, thus making it difficult or impossible for any definitive version of any theory to dominate or enslave the imagination.

Let me once more mention the theory-observation relation in a “competitive market”—that is, in environments with several competing theories. Let $\{O+\}$ symbolize the set of those observational sentences (predictions) derived from theory S that have been tested and given a positive result. (“What was predicted was also found to happen.”) Let $\{O-\}$ symbolize the corresponding set that has given negative results. Let $\{O'+\}$ and $\{O'-\}$ be the corresponding sets related to a second theory S' . Some of the more important relations are as follows:

$$(1) \quad \begin{cases} \{O_+\} \subset \{O'_+\} \\ \{O'_-\} \subset \{O_-\} \end{cases}$$

In this case S and S' are eminently comparable as regards evidential, observational support (corroboration), and S' is unambiguously the better theory, the superior theory *in this respect*.

Nearly all other kinds of cases lack the unambiguity exhibited in (1):

$$(2) \quad \begin{cases} \{O_+\} \subset \{O'_+\} \\ \{O'_-\} \subset \{O'_-\} \end{cases}$$

In this case S' is superior in relation to “strengthening instances,” whereas S is superior in relation to “weakening instances.” Most other cases are even less clear-cut—for example, the cases in which some fields in which the theories have been tested are more or less disparate.

Test of Isolated Hypotheses Practicable

The assessment of the test must take into account the details of the use the scientist makes, or rather proposes to make, of the theory, within his research program (with its policy declaration) in its relation to the situation at the frontier.

Duhem argued that when we say that we test one definite hypothesis, we are really testing a whole theory involving that hypothesis. We might as well add that we then also test *all* auxiliary statements implicitly assumed to be true when making the experiment that is said to test the (isolated) hypothesis. But this may seem rather strange. Do we really test things that we do not know about and assumptions we have never *intended* to test?

There are two distinct problems involved: that of how to test a given (isolated) hypothesis by planned manipulation of certain variables, and that of assessing the possible influence of other variables on the results of the test. If a hypothesis is tested by determining the position of a star image through the use of a telescope, vast fields of optics, physical and physiological, are involved.⁹ The outcome and interpretation of the test *depends on*, and is *influenced by*, all these theories, hypotheses, observations, assumptions, postulates, and so forth. The astronomer must ask: Is the

result of the measurement of the position *unduly* influenced by an imperfection in the telescope—an imperfection perhaps due to a mistake in the fundamental theories of optics used as the basis? Is there something suspicious about the position of the telescope and the vast number of other details of the experimental setup specific for testing this definite hypothesis? Or are things exactly as they used to be? But little is gained by conceiving the astronomer's situation as one in which *he really tests more than he says he tests*. I therefore conclude that a test with an experimental design adequately adapted to the test of an isolated hypothesis *does* test this very hypothesis and nothing else. It does not *test* the other hypotheses of the theory nor the auxiliary hypotheses. But the test may have *repercussions* on the status of these other statements. And the assessment of the quality of the test may change from year to year because of changes in the status of some theories, hypotheses, and so forth, that were relevant to the test.

Incomparability Due to Differences in Conceptual Framework

Let us refer again to Duhem. The agreement of a theory with established laws is, according to Duhem, mainly or wholly a question of derivability. This means that it depends mainly on inventions in mathematics and logic. Revolutionary progress in physics therefore cannot be expected to come from disagreement between a dominant theory and physical laws.

If a theory asserts a definite relation R_1 to hold between a set of variables—for example, mass, core charge, velocity, and so forth—disconfirmations suggest different relations R_2, R_3, \dots between *the same* variables. New laws, or strong disconfirmations of some of the old, may be said *logically to necessitate* some kind of modification of a theory in order to ensure coherence. But they cannot necessitate a change of *theoretical concepts*. Let A, B, C, D be the theoretical concepts in terms of which “established” theoretical laws are formulated. Any theoretical laws *contradicting* the established ones must be *in terms* of the established ones—how could there otherwise be contradiction? Adoption of new theoretical concepts is never forced on us by a negative trend in results of observational tests.

If, now, Duhem's view is taken seriously, changes in theory will only or mainly be dependent on changes in opinion about which theoretical laws are correct. Given certain laws, maximum changes will therefore

remain inside the realm of formulae using the old set of theoretical concepts. But revolutionary change involves new concepts and new ideas, which are *not* definable in terms of the old. It seems therefore that the Duhemian approach does not account for radically new theories.

The basic ideas or conceptual framework of a theory cannot be affected by sets of observations either, since both confirmations *and* *disconfirmations* are *in terms of* that framework. With appropriate changes—that is, modifications of the theory—disconfirmatory instances are changed into confirmatory or irrelevant data—but the conceptual framework is retained intact.

We may even form a kind of principle of *perpetuum immobile*: No theoretical or practical work aiming at testing certain theoretical laws or a definite theory, taken in isolation, can bring forth evidence against the basic conceptual structure of the theory. The worst that can happen to a molecular theory is that it seems that molecules behave very differently from what the theory says—that *they* have quite different properties. But this does not refute the existence of molecules or invalidate the concept “molecule” in the basic structure of the theory. What happened in the case of the instinct theories in psychology before their abandonment was not the refutation of the existence of instincts, but, on the contrary, the excessive proliferation of instincts. In his survey, Luther Bernard (1924) listed 842. (The example is not perfect because most “theories” of instincts do not fulfill reasonable or even minimal conceptual requirements of a theory such as those mentioned in chapter 3 here.)

If two theories are mutually inconsistent, I repeat, they may nevertheless both be confirmed or both disconfirmed by exactly the same set of established theoretical laws. This is due to the circumstance that a theory has more consequences than *just* the set of current accepted laws. But if a new theory has a different conceptual framework from the old, the theoretical laws derivable from the old theory cannot be derived from the new. From a theory in terms of concepts *A, B, C, D*, only laws in terms of *A, B, C, D* can possibly be derived. A law in terms of the concept *E* cannot be derived except when *E* is reducible to *A, B, C, D* or definable by these concepts.

What happens in actual practice, of course, is that the terms of the old theoretical laws are slightly or extensively redefined—mostly without any corresponding change in symbols. Stability in the linguistic apparatus provides an appearance of continuity. The letter *m* and the four letters *mass*

will be retained as long as there are mnemotechnical reasons for retaining them, and those reasons have little to do with meaning- or use-constancy.

Turning now to empirical laws, the same conclusion holds, but perhaps it calls for additional commentary. “Metals expand when heated” contains three key terms used to refer to everyday observables and none of these terms are specific to any competing theories. Two mutually inconsistent or theoretically incomparable theories may therefore both permit the quasi-derivation of “Metals expand when heated.”

I say “quasi” because one needs, in addition to the theories themselves, different sets of “rules of correspondence,” or “*Zuordnungsdefinitionen*” (Reichenbach), that connect the observables with vast theoretical, conceptual frameworks. Because of the one-many relations between the terms of the empirical laws and the theoretical terms, the confirmation of one theory implies neither a disconfirmation of theories contradicting the first nor a disconfirmation of theories with incomparable conceptual frameworks.

Suppose that in the time interval $t_2 - t_1$ a number of natural laws are said to be established and that an accepted theory T_1 (at time t_2) is found to be inconsistent with one or more of the laws. Some would take T_1 to be refuted, others not. The room for genuine disagreements is seen to be considerable since, first, it is not establishable a priori whether T_1 need be in disharmony with any single *observation*, and second, even if it is in disagreement with such an observation, it is not specified whether there are other theories, T_2, T_3, \dots that can take over the functions of T_1 more satisfactorily. If one takes refutation to justify abandonment, both conditions must apply in order to classify the theory as “refuted.”

Let us use an illustration from the calculus of propositions: that q implies r , and p is inconsistent with q , does not exclude that p implies r . The conjunction

$$(q \supset r) \ \& \ \sim (p \ \& \ q) \ \& \ (p \supset r)$$

has the relative strength $s = \frac{4}{8} = 0.500$ —that is, less than the strength of a conjunction of two variables, and far from $s = 1.000$, the relative strength of a contradiction. From the laws (corresponding to a part of q , the rest being *Randbedingung* statements), the observations (in our illustration: r) are derivable, but this does not exclude their also being derivable

from the theory T_1 (in our illustration: p) in spite of the inconsistency of T , with the laws (in our illustration: the inconsistency of p with q). This is essentially the pluralism of derivation on which the principle of Mach-Duhem-Poincaré rests (see p. 37).

Thus, any reported refutation of a theory by natural laws, or by any other theoretical statement “established” by observation, is relative to the outcome of attempts to link the theory to observations *through channels other than the refuting laws*. Now, to relate theories to observations is a crucial task for researchers, and imperfect solutions mean imperfect decidability of the weight of a “refutation.”

In the light of these considerations, it might be deemed surprising that *new* theories are often in vehement conflict with some well-established laws. But if it were expected of a new theory that even in its first version it should not contradict any established law, there would be so few proposals that the theoretical development of science would practically halt. Furthermore, an established law can be deeply modified without losing its admirable relation to observation. Such modification may subsequently bring the law into harmony with the theory.

This may justify a short discussion of a point made by Duhem. He concludes his treatment of testing theories with the dictum that the “only experimental check on a physical theory that is not illogical consists in comparing the *entire system of the physical theory* with the *whole group of experimental laws*, and in judging whether the latter is represented by the former in a satisfactory manner” (Duhem 1962: 200). This might be so if we write “alogical” instead of “illogical.” If laws already formulated in terms of a definite theory are badly represented (I would say badly “accounted for,” “addressed,” or “covered”) by it, it certainly speaks against the theory, but of more decisive importance are comparisons of competing theories in relation to carefully selected experiments. The comparison is alogical in the sense that the conceptual framework by means of which the experiment gets its theoretical import is different for the different theories. When concepts are thus different and mutually untranslatable in practice, the comparison cannot be “logical” insofar as the theories seem to speak of different things. They are not confronted with the same experiment as judged from the sentences expressing the experiment’s theoretical import.

To follow the letter of Duhem’s dictum would be unnaturally to restrict work with theories; designing and testing a theory would become

an exercise in logic and mathematics. What Duhem calls an “experimental” check differs little, if at all, from a logical mathematical check. The relation between law and theory is one of derivability. But if testing a theory is testing this relation, why make experiments? The comparison of two competing theories, and assessment of tests applied to both, call for an assessment of the relation of the theories *to observations*, not just to laws. A theory may be victorious because of its relation to certain crucially important observations—in spite of conflicts with “established laws.” Ernest Rutherford once said retrospectively: “I was perfectly aware when I put forward the theory of the nuclear atom that according to classical theory the electron ought to fall into the nucleus . . .” (Holton and Roller 1958: 624). The conflict was not only with the only competing theory then at hand, but with laws derivable from the theory and based on an immense number of confirmatory instances. Nevertheless, Rutherford’s theory did not conflict with any observations! Nobody had observed whether electrons tend to fall into the nucleus. If laws, as Mach proposed, should be *denkökonomische* condensations of observational data, conflict with laws would be very much more serious than it is. But the relation between the number of observationally established instances of a law and the total number of instances covered by it is as that between a finite and an infinite, or at least indefinitely large, number.

Proliferation of Concepts of Refutation: Pluralism

The historical sources of cases of refutation are texts of various kinds and recorded discussions among scientists. These sometimes end with the rejection of a theory or hypothesis. We are interested in the reasons for rejection, however, and whether they amount to refutations (in various senses) or not. The rejection and abandonment of a theory by a scientist or a community is also more easily inferred from the sources than a refutation. No more use, perhaps, is made of the theory, and the historian asks, “What happened?” He is sure that the theory was rejected and abandoned, but to give the exact reasons is a task of speculation and reconstruction, however rich the sources.

The new historiography has amplified our knowledge of a number of reasons for rejection and consequent abandonment. They are scarcely less

complicated than reasons for social rejection and ostracism. Just as answers like “We don’t like him” or “He’s undesirable” to the question “Why ostracism?” will not satisfy a logician of social relations, the answer “It is falsified or strongly disconfirmed” will not satisfy a logician of science. Logical reconstructions that have any value to research must systematize the reasons, for instance in sets of necessary and sufficient conditions. Such sets will, of course, only approximately, and within limited domains, “cover satisfactorily” the historical sources, but this holds well for any logical construction with descriptive aims. In what follows we have natural science in mind. It is unlikely that a logical reconstruction of processes of theory- (or even hypothesis-) rejection can be disentangled from the special topic (chemical, physiological, sociological, political) to such a degree that it satisfactorily fits *any* theory or *any* hypothesis. At least preliminarily one might have to speak of “rejection in physics since Galileo,” “rejection in experimental psychology,” etc.

The historical sources of the new historiography are overwhelmingly rich and detailed compared with what was available thirty years ago, but there is still a long way to go from these to fruitful conceptual reconstructions of the historical processes. The very richness of the sources makes it psychologically more difficult to make pronouncements on the level of complete generality. And there is even further to go if one wishes to propose methodological norms of rejection.

Our main concern in this essay is not to decide for or against particular conceptions of refutation and refutability, but to point to the room for a *diversity of conceptions*. The procurement of this room is secured by systematic elaboration of the *differences of descriptions by scientists and by historians of particular cases* of falsification, refutation, or rejection. Case histories show great variation and provide the best antidote against prejudices as to what a refutation *ought to be*.

There is a substantial basis for similar pluralism in regard to conceptions of other crucial phenomena relevant to scientific development. This opinion will be discussed in some detail in chapter 4.

From the “economy of thought” approach of Mach, Avenarius, and contemporary pragmatic philosophers of science, rejection is ultimately a question of economics. When it “does not pay” to expend more effort, make more auxiliary hypotheses, or more complications, the theory is rejected.

From the “falsificationist” and “testability” approach of Popper, rejections are conceived more in terms of the true/false distinction and the question of frequency and severity of tests.

But these two examples represent only one major class of dimensions of rejection. We have also the dimensions of consistency, generality, and severity of rejection. A theory may be rejected within one of several domains covered or in all domains. It may be rejected only when very special requirements of exactness of prediction are laid down or, on the contrary, rejected only when a low degree of exactness is required. Further, the theory may be rejected by simple neglect—interest shifting to others until it is so out of date that it is found impracticable to revise it.

Very rarely are the deaths of theories heralded by explicit, careful refutations with well-formulated premises. A theory may simply be talked of less and less, and the predicates used to characterize it become more negative, harsher. Nobody concerned may ever have produced or seen a formal refutation. Thus we have to consider still another dimension: the variety of requirements (or lack of such) concerning *explicitness*. If a theory simply is not heard of anymore (historical sources are silent), is it rejected? What, in short, are the criteria that characterize an *act* of rejection?

It is not our aim here to go into detail, but only to suggest that rational reconstruction of conceptions of rejection and refutation can only proceed fruitfully on a pluralist basis.

Conclusion: The rules and considerations leading up to a verdict, or rather to a decision of “refuted!” or “not refuted!” cannot be isolated from purely heuristic ones. Criteria of truth or falsity and criteria of the goodness of theories have never been as clearly distinguished in practice as they have in discussions of the “logic” of the practice.

The complex relations of actual and potential fields of testing preclude clear-cut decisions as to rejection or acceptance on the basis of observation.

If we are interested in the *logic* of refutation, what kind of symbolic structures should we use? In order to do justice to some of the complexities inherent in the life and death of theories, I think the “logic of indices” might fruitfully be applied. Economists and other social scientists have, for the purpose of condensed comparison, developed indices of, for example, the standard of living, overcrowding, popularity (for example, of

politicians), air pollution, degree of democracy, and many other magnitudes. A great number of factors have to be investigated in order to calculate such mostly quantitative indices, one major concern being the *careful, explicit* formulation of each item or factor relevant to the result. Each researcher might of course propose his own index, but this would defeat the main purpose: to have standard ways of condensed comparison within the research community or within even larger groups. The status of theories in regard to refutation and corroboration may, at some time in the future, be recorded by research teams issuing monthly bulletins that end with index tabulations—neither taken too seriously nor completely neglected by research communities.

III

Theory and Theoretical Idea

Theories: Variety of Notions

The vigor and confusion of the debate on the nature of theories is in no small measure due to the same factor: the vagueness and ambiguity of the term “theory.”

Sometimes the term is used for propositions of any level of preciseness that are not expressions of observations. Thus, Popper (1962: 194) speaks about idealism as the theory that “the world is my dream.” It is, according to him, a false but irrefutable “theory.”

Any assertion of hypothetical character, however vague or trivial, seems to be called a “theory” by Popper and many Popperians (for example, Lakatos). Still others use the term in a very broad way but seem sometimes to require that it contain at least one universal quantifier. If this is the only requirement, one is forced to include the ill-famed “all ravens are black” among our theories and also other primitive generalizations.

Carnap’s concepts of empirical law, theoretical law, and theory provide a better frame of reference. Here the inevitable “all ravens are black” occurs as an empirical law, not as a theory. Empirical laws of temperature are derived from theoretical laws (parts of theories?) by a correspondence rule. “The temperature of the gas corresponds to the mean kinetic energy of molecules” (Carnap 1966: 241). New theories must permit derivation of new empirical laws; those that do not are logically equivalent to the old theories.

Then there are conceptualizations of “theory” that are too narrow for our purposes—for example, those requiring a detailed explicit exposition in the form of a hypothetico-deductive system. The terminology of Duhem is very special, defining physical “theory” as a set of mathematical propositions from which laws can be derived: “What is a physical theory? A group of mathematical propositions whose consequences are to repre-

sent the data of experiment; the validity of a theory is measured by the number of experimental laws it represents and by the degree of precision with which it represents them" (Duhem 1962: 288).

In the last two chapters I deal with complicated sets of fairly precise propositions of various theoretical and observational levels. I need a concept of theory adapted to this purpose. In what follows I therefore take as paradigms of theories in my terminology the wave- and particle-theories of light; the kinetic theory of gases; in chemistry, the theories of acids; and in experimental psychology, Hull's theory of learning, Tolman's sowbug theory of vicarious trial and error (VTE), and Homan's theory of social behavior as exchange.

These complicated structures certainly contain, or *may* be formulated so as to contain, general statements, but there are other features of a theory deserving more notice: (1) *The merely indirect relation to observation*. No observation statement is part of the theory. (2) *The multiplicity of levels*: levels of fundamentals or, better, principles, levels of hypotheses, and laws. (Level of consequences directly testable by observation is not included. It would have to include statements about initial conditions.) (3) *The derivability or quasi-derivability of consequences* and, among them, predictions—observation sentences from fundamental propositions of the theory (when initial statements and so forth are added). (4) *The multiple problem-solving function* (not inherent in "all ravens are black"!), suggesting vast research programs. (5) *The presence of a fairly simple unifying idea* (conception, not only concept) behind the professional (scientific, precise) formulation of the fundamental features.

I have stressed the characteristics most important for the problems dealt with in this book.

I find this general structure, especially point (2), more helpful when studying theories than the one proposed by the many philosophers of science who are mainly inspired by logical analysis. One cannot, without great arbitrariness, take an abstract calculus as one of the three main components of (the formal structure of) a theory. Consequently, it is awkward, too, to make into another component "a set of rules that in effect assign an empirical content to the abstract calculus" (Nagel 1961: 90). This means that we must be doubtful of the significance of the important concepts of *Zuordnungsdefinitionen* and *rules of correspondence* carefully worked out by Carnap, Reichenbach, and others in the 1930s.¹ The main point is that if a

theory is a physical theory, all three levels are physical. There is no “uninterpreted” level. The phrase “a theory may have different interpretations” (Feyerabend and others) is avoided because it suggests that there exist uninterpreted theories or theories not yet interpreted.

Similarly, if a theory is biological, all its levels are biological; none of them are a province of logical or mathematical calculus. Recent work in the philosophy of quantum physics indicates that no exception need be made because of the supposed nonphysical, purely mathematical, instrumental character of the ψ -function and other esoteric symbols.

However important it is for the logician of science to introduce distinctions “so that attention is directed exclusively to the logical relations,” the dynamics of scientific test procedures require very different conceptualizations. The three levels of statements proposed above only provide a model of the formal or linguistic structure of a theory. One must be careful not to *identify* the theory with that structure. If such an identification is made, scientists seem to jump from one theory to another, falsely pretending they are “the same” theories. Or they seem not to recognize clear cases of “refutations.”

The above five characteristics relate mainly to the anatomy or statics of theories. We take our lead from the excellent rule practiced in some countries for defining patents: never give a patent for the *function* of an invention. In defining a lamp for a patent, we must specify its structure (anatomy) and what it is made of, but not how well it lights a room (physiology) or how nice its color is (psychology). But a definition of essentials (*definitio essentialis*) must include functions. In the case of theories, these include the properties brought to light by study of their uses and jobs, of the interaction of one theory with others, and of their place in research activity, programs, policy, strategy, tactics, and in applications that have no research pretensions. All this is relevant to any adequate *essential definition* of a theory, just as the essential definition of an organ of a living animal has to include references not only to anatomy, but also to physiology and acquired abilities. Therefore, I do not take the listed five characteristics to constitute an essential definition.

In order to avoid too much laxity in distinguishing logical, and more generally cognitive, aspects of a theory from the genetic, psychological, sociological, and political aspects, it is convenient to distinguish theorizing from theory. Theorizing is an activity manifested by a theorizer, and it

includes the construction of theories. But the predicates applicable to theorizing are not always predicates applicable to theories. I shall have to go into detail on this theme later when assessing the large-scale attack by continental philosophers of science on what is called *the illusion of pure theory*. Two central questions need clarification: To what extent is this an attack on pure theorizing rather than on pure theory? How “deep” into a conceptual framework within general systems does the distinction between activity and content go?

Whereas the use of the term “theory” and its relations to that of the terms “law,” “hypothesis,” “principle,” and “conceptual framework” show a tendency toward stabilization within the fields of philosophy of physics, in the humanistic disciplines all is still in flux. Reginald Robson (1968: 349) has helpfully distinguished four uses of “theory” in sociology: “theory” as a general name for social ideas and theoretical thinking; theory as social commentary or analysis of social phenomena; theories as taxonomic systems—more or less systematic or comprehensive sets of concepts; and a theory as “a set of interrelated, general propositions that seek to explain empirical uniformities and from which one can deduce further hypotheses for empirical tests.”

Talcott Parsons’s use of “theory” in his influential *Toward a General Theory of Social Action* neatly fits the third of these uses. “His contribution amounts to a ‘conceptual framework’ or ‘frame of reference’ which provides a set of concepts which can be used in describing a vast array of social behaviour” (Robson 1968: 355). Robson formulates conclusions of a team of sociologists evaluating the work of Parsons. I find Robson’s terminology well chosen; the only thing I object to is his tendency to expect fruitful theories to be rather general in scope. Within the vast field of the psychology of learning there are a number of well-defined specific theories, but the general theories are either tautologous or too vague to be of any use—except as conceptual frameworks. Hans Zetterberg’s view of the size of fruitful theories is more realistic (Zetterberg 1965).

Whereas the reading of the great classics of physics will largely be a reading of theories, the reading of the classics in sociology, it seems to me, will largely be a reading of theorizing—especially the wise or acute analysis of social phenomena. Think of Tocqueville, Znaniecki, and others! There are scarcely any theories to pinpoint in the works of these theorists.

Conclusion: The importance of theories for the development of social science is not as great as in natural science. To say “is not as yet as great” would be to reveal some of one’s tendencies in philosophy of science, perhaps a misleading submission of ideals of social science to those of nomothetic natural science.

One more comment on the use of the term *theory* in sociology should be mentioned. Zetterberg writes:

First, there is a habit of designating all the better sociological writings of older vintage as “social theory.” . . . An alternative and better term would be “sociological classics.” . . . A second conception of “social theory” . . . equates it with a commentary on sociological writing, usually from an historical perspective. . . . “Theory” here means essentially “sociological criticism.”
(Zetterberg 1965: 6–8)

Third, there is “theory” in the sense of “taxonomy.” Zetterberg, like Robson, uses Parsons’s frame of conceptual reference as a paradigm. Fourth, there are “systematically organized, lawlike propositions about society that can be supported by evidence” (*ibid.*, p. 22).

Of the many important reasons for reporting these tentative classifications of senses of “theory” in sociology, there is one that has to do with the current interaction between continental and American sociology (and political science). Representatives of the continental trend sometimes take it for granted that the limitation of the term *theory* to both Robson’s and Zetterberg’s fourth sense implies a devaluation or criticism of works falling under the first three classes, or a program of future elimination of those kinds of work. But this elimination is a suicidal approach and is hardly recommended by any contemporary metatheorist of sociology. Both Robson’s and Zetterberg’s fourth sense differ from that of the term *theory* adopted in this work, especially by leaving out the theoretical idea. A set of interrelated propositions without a unifying idea cannot be a theory in my sense, but then the aims of those writers are different from mine. There is no “disagreement.”

The intricate relation between theoretical idea, theory formulation, and observational test can be studied by comparing the achievements of Julius Robert Mayer, James Prescott Joule, and Hermann von Helmholtz in developing the principle of conservation of energy. Mayer “found the new idea,” and the “fame of discovery,” therefore, belongs largely to

him—according to what Helmholtz himself made clear. But *exactly* what idea? Mayer starts from the postulate *causa aequat effectum* and the dictum that energies are causes. He deduces, in the best of metaphysical traditions, that energies are “*indestructible convertible entities*” (Holton and Roller 1962: 351–57)—like all other kinds of causes. *This* is the idea. . . .

It is clear that there is a long way to go from the contemplation and formulation of this idea to a professional statement of a theory in physics. Helmholtz did it—and most elegantly. But the next hundred years of development of conservation principles show that neither Helmholtz’s *formulation*, nor any other, could take over the role of the idea. Every modification and elaboration had to get its inspiration from, and take its cue from, “the” idea—“the” in quotes because there is of course no *definite* idea, but a family of ideas with vague outlines.

To James Joule goes the honor of having invented a suitable experimental setup for testing the theoretical statements. His and other experimental designs are interwoven with ad hoc theoretical assumptions. Just like Mayer, his conviction that the energies *are* conserved had a metaphysical background—and content. He thought it would be “manifestly absurd to suppose that the powers with which God has endowed matter can be destroyed” (ibid.).

The idea of theories mirroring reality, being somehow isomorphic with the structure of how things really are, still plays a considerable role in sociology and political science. The theories of one-dimensional society (Marcuse 1964), of the structure of dominance in highly industrialized Western societies, and of the breakdown of communication (Jürgen Habermas) may be taken either as ideal-typical constructs, which are social science’s functional equivalents of models in natural science, or as mirrors of reality. If the latter, it is easier simply to take them *to be true*, to act on them, and to form political strategies based on them. If we take a social theory to be a construct or a model, however, the way from theory to political practice is more intricate. This is perhaps one of the reasons why the mirroring conception of theory is still not only alive, but growing in importance socially with increasing political activism.

The great historical theories are in a sense more or less permanent crystallizations of certain ideas that represent a quite unusually happy combination of hunches—of fluid, fragmentary ideas constantly cropping up in the intensively active minds of great researchers.

Both the fluidity and the diversity of these fragments can be judged from a recent contribution to the materials of psychology and sociology of discovery — the autobiographical account by James Watson (1968) of the discovery of the three-dimensional structure of DNA. What he and his collaborators were looking for was not a theory, but a “correct hypothesis.” Nevertheless, theoretical ideas in great numbers—most of them, of course, borrowed from others—were cropping up in their minds. Tests were made, mostly with accepted theories and hypotheses, sometimes by confrontation with observational journals, and ideas were dropped—as wrong, misleading, insufficient, etc. The account is excellent as an illustration of *theorizing* and of the complex relations between loose, fragmentary ideas, relatively well-formulated ideas with some clearly worked out consequences, and elaborate, systematic ideas on the way toward adequate expression as a precisely formulated theory.

The differentiation of theories from related phenomena requires a short treatment of the trilogy of theory, working theory, and theoretical research program.

The term *working hypothesis* has long been used for a tentatively, deliberately adopted-until-further-notice hypothesis *during* a research activity. What one does with such a hypothesis is, among other things, to derive its consequences; to compare them with those of other (incompatible) hypotheses; to test predictions (singular statements testable by observation); to investigate which already accepted theories might have the hypothesis as a consequence and which not; and further, to look for experimental setups that might increase testability. These and other activities are normally expected to furnish premises for decisions on whether to rely more heavily on the hypothesis as part of a wider research program or to drop it.

The term *working theory* is used less but can be given a strictly parallel use, except that working with a theory is still more complicated and has more aspects.

The notion of a “working theory” leads naturally to the consideration of research programs and their relation to theories. It is quite customary, as we have already mentioned, to formulate decisive parts of a program in the shape of a theory. “Complexes are really attitudes”: this formula was used by academic behaviorist psychologists to express a program, namely that of systematically reformulating psychoanalytic hypotheses about

complexes in terms of attitudes—that is, behavioristically into patterns of reactions. If successful, the program leads to the establishing of a theory, but at least at the initial stages the theorylike formulations are not expressive of any theory. It is a theory *in spe*, not even a “budding” theory.

The very close relation between the performatory use of theory formulations, namely as expressions of a program, and the more stiffly cognitive use makes it important to map out the differences between the conditions of programs and those of theories. The decision to start, continue, or close a program may be more or less wise, rational, clever, well-founded, or realistic. The refusal to give it up may be more or less stubborn, tenacious, etc., but not dogmatic as in the case of a theory. The designations “true,” “false,” “tenable,” “corroborated,” “confirmed,” “refuted,” etc. do not apply to programs (some of them are misplaced even in the case of theories).

The notion of a research program is used by Lakatos (cf. 1970) to express what I would call “programs of maximal size and of philosophical import.” He uses as a paradigm “the cartesian metaphysics C”: “in all natural processes *there is* a clockwork mechanism regulated by (*a priori*) animating principles” (Lakatos 1968a: 179). Lakatos argues convincingly that it serves the growth of scientific knowledge to stick to such a program even if it is temporarily untestable by basic statements, in Popper’s sense.

Theories: Names, Expositions, Versions, and Modifications

Let me begin with an example. The term “Bohr’s theory of the hydrogen atom” does not, and never did, refer to a definite set of propositions. There is a conceptual scheme, an idea, that in the hands of a genius affected a formidable conceptual breakthrough. The scheme does not permit exact delimitation but is perhaps most easily approached through the theoretical postulates or assumptions by which Bohr was able to derive a vast number of empirical laws summarized by the formula:

$$\frac{I}{\lambda} = R \left(\frac{1}{m^2} - \frac{1}{n^2} \right)$$

Essential aspects of the scheme are the following: The electron can move only along certain orbits, the “permissible” ones. Circulating there, the atom does not radiate anything. This is a famous ad hoc assumption, or, rather, postulate. Testability when accepted: zero. The electron may

drop spontaneously from an orbit of higher energy to one of lower energy. The energy liberated will appear as radiation of a definite frequency. Collisions or radiation directed against the atom make it absorb energy, and its electron *or electrons* are jerked up to an orbit of higher energy. (These are qualitative, not quantitative, conceptions. The success of Bohr's *ideas* was, of course, dependent on the quantitative specifications added to the qualitative conceptions.)

The expression "or electrons" is italicized because it indicates a generalization beyond the realm of the hydrogen atom. The ideas "behind" the professionally formulated theory of the hydrogen atom are such that generalization is psychologically inevitable. In the mind of Bohr, they were probably never narrowly associated with just the hydrogen atom. Such sentences as "the theory was only moderately successful applied to heavier atoms" attest to the broader interpretations: strictly speaking, the theory, as it was professionally formulated, could not possibly, as a pure hydrogen theory, be applied successfully or unsuccessfully to heavier atoms. Among the essential parts of the theory were specific propositions about the *hydrogen* atoms, and to its one and only electron. It would not occur to anyone to simply "apply" these propositions to other atoms. (But they certainly could be applied to ions—for example, the helium atom robbed of one of its electrons.)

Contemplating the high speed of electrons, Sommerfeld theorized in 1915 that relativistic, not classical, mechanics should be used in calculating the orbits. The hydrogen spectra were therefore investigated more accurately to detect deviations. "The results appeared to corroborate Sommerfeld's theory; and at the time, these corroborations were viewed as lending powerful support to Bohr's theory . . ." (D'Abro 1951: 514).

This is instructive because obviously the new spectroscopic findings represented a massive series of disconfirming instances if Bohr's theory was identified with a *definite* version, or even with a definite exposition of a version. That is, the theory should properly have been regarded as "conclusively falsified" if conceived narrowly as identical with any one of the definite professional versions. But in the minds of physicists, the theory was never conceived without its idea or ideas. And the fruitfulness of the ideas was only enhanced by the *modifications of the professional version* necessitated by the consideration of the enormous speed of electrons. In the above quotation there is reference to Sommerfeld's "theory," but in the

history of physics it is plainly a new version of Bohr's theory, in spite of the logical incompatibility of Sommerfeld's formulae with those of Bohr.

After the modification was carried through, deeply affecting the cognitive content of the professional versions of the theory, the new formulations were, of course, still considered to express the old theory, "Bohr's theory of the hydrogen atom." There is a symmetry to be seen here between thing identity and theory identity. As a thinglike entity, the theory is modifiable, has indefinitely many aspects, and is subjected to Leibniz's principle of the inexhaustibility of actuals. But it is the physiology, not the anatomy—the dynamics, not the statics—of the theory that reveals its thing character.

The series of modifications are an open-ended series, as are the forms of experimental setup, which are essentially bound to the theory. New discoveries, by definition nonanticipatable, add new dimensions of possible modifications. Who could anticipate in 1913 the ideas of Sommerfeld, and who could anticipate in 1915 the later idea of the spinning electron? The latter idea introduced what could still be viewed as a modification of "the" Bohr theory, but of course the modifications were now on a scale that made it natural to start talking about an abandonment of "the" Bohr theory in favor of new ones.

Sometimes a name is retained even after the most drastic of changes and expansions. "The quantum theory" was used originally by Max Planck to designate the idea that the emission and the absorption processes in atoms occur discontinuously. In the professional expression of his theoretical idea he specified the quanta as quanta of action. They each have a definite value: $h \approx 6.6 \times 10^{-27}$ erg sec. The professional expression of the theoretical idea was a hypothesis, the quantum hypothesis, in our terminology. It is quite common to look at present-day quantum theory as only a modification and extension of the old "theory"—perhaps similar to the relation between New York City today and New York City in 1800. Example: "The quantum theory has been extended and modified repeatedly since its original formulation by Planck, and even today it is still in a state of rapid change" (D'Abro 1951: 48). Planck himself did not quite recognize or accept the "developments," but he could retain the name "the quantum theory" for what he had himself put forth in 1900.

Our conclusion is only this: if we wish to employ a concept of "theory" that does even minimal justice to the use of the term in present-day

scientific literature, a theory must have a thing character, which both permits different versions of *the same* theory and includes its *idea* as part of the total phenomenon, “the” theory.

If the theoretical ideas behind two theories are clearly different, it is unlikely that the one can embrace the other as a special case, or that the one is “more comprehensive than” the other, taking this relation to be an explicit relation between professionally adequate versions. *Prima facie* there is evidence that those people are right who insist that classical mechanics cannot be shown to be a special case within relativistic mechanics, or quantum physics to be more comprehensive than classical.² One would expect, instead, a relation of incomparability due to basic differences of conceptual structure.

A theory must be capable of being presented by a finite series of fairly precise sentences. But this does not mean that there must be one definite authoritative formulation, “the” (formulation of the) theory. More important, the set of adequate formulations cannot be expected to be logically equivalent—to have identical cognitive content. There must be some similarities, but the extent of the similarity is difficult to quantify.

So far, there have not been two independent researchers who have attributed exactly the same content to Newton’s mechanics. The more important varieties are (logically considered) mutually inconsistent, if not incomparable as regards consistency (due to ambiguities). This presumably holds for the presentations of the Bernoullis, d’Alembert, Lagrange, Hamilton, Jacobi, and Hertz.³

The shortest argument for the indefinite plurality of versions of Newton’s dynamics is perhaps best illustrated by referring to the multiplicity of interpretations of a small part—namely, the laws of motion. Generating differences at this fundamental level means generating different systems of dynamics—systems with different cognitive content.⁴

The formidable complexity of details in Copernicus’s own version of the Copernican theory was not assumed by other versions. “The” theory was always in flux. If by “the Copernican theory” we mean *exactly* the original version, very few ever read or understood it, and it was never believed in, not even by its author. If Newton’s own text of *Philosophiae naturalis principia mathematica* were to be taken as *the* expression of certain Newton theories, they would be eternally infested with dozens of plain errors, mathematical and otherwise.

THEORY AND THEORETICAL IDEA

Referring to the situation of Galileo when defending the heliocentric system, Feyerabend argues:

The advice to *test* his theories would have been quite useless for Galileo, who at any rate was faced by an embarrassing amount of *prima facie* refuting instances, who was unable to *explain* them, for he lacked the necessary knowledge (though not at all the necessary intuitions) and who had therefore to *explain them away* in order to save a valuable hypothesis from premature extinction.
(Feyerabend 1970b: 303)

As reported by Feyerabend, the conflict between theory and observation seems more direct than it would seem when taking the theoretical idea as a genuine part of the theory. Galileo could always move from professional versions of the idea to its qualitative, intuitive core: that the planets move around the sun rather than around the earth. If a theory is completely identified with definite professional versions, as sometimes *seems* to be the case in the accounts by Feyerabend and others, the survival of new theories appears near miraculous and their defenders as heroic and desperate as Vikings fighting on a ship that is sinking or already nearly submerged. I stress “seems” because custom permits us to talk *as if* a theory could be identified with its favorite version, or some of its favorite versions. This custom is reasonable in many ways, but slurs over the not inconsiderable question of how to pick out the approximate boundaries of a theory in relation to a field of ever-growing modifications.

Eddington humorously proposed that since there was so much trouble with entities partly having and partly not having wave or particle properties, a new entity, the wavicle, should be introduced, having just the right combination of both kinds of properties. Why not accept this generous offer? Because whereas the concepts of wave and particle constitute important, very simple commonsense ideas, the wavicle would have to remain a feature of the professional and precise *expositions*. Therefore there are wave theories and particle theories but no wavicle theories! The latter would lack an important ingredient: the theoretical idea.

Among the factors responsible for the semantical diffuseness or vagueness of what a name of a theory expresses, some are very simple, such as the fluid condition of what is taken to be the borderline between the theory as such and a consequence of the theory. When the chain of derivations between fundamentals, or principles, of the theory and partic-

ular laws or hypotheses derived from it is a long one, it is more or less arbitrary which link is taken to be the last of the theory itself and which to be the first within the realm of its consequences.

Further, there are versions with different degrees of generality: "Is it a theory of the hydrogen atom or of hydrogen-*like* atoms or ions?" There are, of course, no standard answers to what constitutes a modification of an old theory and what would be a new theory. How extensively may an Italian Renaissance chair be repaired and still be a Renaissance chair?

From the point of view of formal logic, the slightest change in cognitive content must be said to give rise to a new "theory." And from the same point of view, there may be different expositions but not different versions of one and the same theory.

From the point of view of a historian specializing in long trends, one may speak of "the" wave theory of light as if centuries of theories with different contents are all modifications of one "basic" theory, "the" wave theory. This tends, however, to result in the identification of theory with theoretical idea, a pernicious step in the philosophy of physics. Even in biology it has had awkward results, for example, in untenable assertions on the "anticipations" of Darwin's theory of selection by a host of philosophers. It was Darwin's theoretical idea, not his theory, that was anticipated.

A theory (in our terminology) must be adequately formulatable so as to make derivations practicable. An idea is normally *suggestive* of consequences, but not adapted to rigorous derivations. The formulation and expression of a theoretical idea, while not in itself constituting a theory, is nonetheless a critical prerequisite for theory development.

Behind the seemingly trivial semantical decision on what to designate by "theory" there are nonterminological questions having to do with the "idea" of a theory. Scientists are mostly willing to put their theories into a nutshell, using terms from everyday life and often some pictorial or otherwise metaphorical presentations: "light is waves," "light is particles," "electricity is a fluid," "electricity is an effluvium," "the sun, not the earth, is the center of the universe." Such utterances are sometimes frowned upon professionally but are more apt to reveal important theoretical ideas than are long careful expositions. To consider them "unscientific" may easily result in a kind of castration of the imagination. The following extract from the diary of Darwin illustrates the importance, but also the simplicity of a theoretical idea:

THEORY AND THEORETICAL IDEA

In October 1838 I happened to read for amusement Malthus on Population, and being well prepared to appreciate the struggle for existence which everywhere goes on from long continued observation of the habits of animals and plants, it at once struck me that under these circumstances favourable variations would tend to be preserved, and unfavourable ones to be destroyed. The result of this would be the formation of new species. Here then I had a theory on which to work. (Darwin 1986)

Or in my terminology: “Here then I had a *theoretical idea* by which to work.” And he certainly worked! In contrast to philosophers of previous generations, he worked out a theory and applied it with immense success.

Concluding, then, I propose a separation of the following entities:

1. A *theoretical idea*—vague, suggestive, preferably from the realm of everyday life, intuitive.
2. *Formulations expressing the theoretical idea*. These are vague, ambiguous, “crude,” but superbly fitted for being made more precise, more specific in various directions.⁵
3. *Exposition of a theory*. A definite string of sentences, in professional style, using technical terminology.
4. *Version of a theory*. Several expositions may be logically, mathematically equivalent. They all express one version, one professional *explication or development* of the theoretical idea.
5. *Inequivalent expositions expressing different versions of a theory*. Usual designations: “modifications,” “developments,” “refinements,” “forms.”
6. *The theory itself*—the idea *and* the class of versions.

There is not much to be gained, of course, by adopting this terminology, but it may occasionally clarify issues, especially the relations between logic of science and “science of science”—the many-sided study of the scientific enterprise.

Theory construction and application are part of this enterprise. To understand under what circumstances theories tend to be adopted or rejected requires studying the many aspects of scientific activity—including the climate at the frontier, policies, and research programs.

Some of these points will be elaborated below.

Value and Function of Indefiniteness and Unsurveyability

The understandable longing among social scientists for a somewhat higher degree of clarity and preciseness sometimes drives them toward persuasive definitions of “theory” that we should be happy not to see followed. For example:

A *theory* is a set of propositions complying, ideally, with the following conditions: (1) the propositions must be couched in terms of exactly defined concepts; (2) they must be consistent with one another; (3) they must be such that from them the existing generalizations could be deductively derived; and (4) they must be fruitful—show the way to further observations and generalizations that increase the scope of knowledge (Timasheff 1957: 9).

Brilliant formulations of historically important theories and of the intricate structure of derivations of laws and hypotheses are, of course, the highly valued rewards of lifelong study by philosophers of science, but their results may well create the impression that theories are to be *identified* with hypothetico-deductive systems. Here Michael Polanyi’s warning, well transcribed by Raymond Aron, is apposite:

Only the method of inquiry, of research or of demonstration in fact practised by the creative scientist can reveal the nature of scientific knowledge: its subsequent arrangement in hypothetico-deductive form, whatever its utility, disguises the intention of the knower and consequently the essence of his knowledge. (Aron 1961: 104)

The successful arrangement within a hypothetico-deductive framework is a great and positive achievement, but the essence of knowledge in the sense of the research situation “at the research frontier”—the status of competing theories, of relevant hypotheses and masses of observational journals—is not revealed by a lucid hypothetico-deductive system.

Considering the misunderstanding that when a precise version has been created, the vague but suggestive formulations of the idea are obsolete, archaic, superseded, and therefore scientifically objectionable, it is understandable that scientists sometimes stress the imprecise and undefinable character of important and fruitful “concepts,” meaning what I have here called “theoretical” ideas. Thus, Hendrik Kramers:

THEORY AND THEORETICAL IDEA

My own pet notion is that in the world of human thought generally, and in physical science particularly, the most important and most fruitful concepts are those to which it is impossible to attach a well-defined meaning.⁶

In our terminology: no precise version of a theory exhibits all the potentialities of its idea.

To a theory there belongs an idea. But this does not mean that the *conjunction* of the formulation of the idea and a professional exposition expresses the complete theory. The essential and important vagueness and ambiguity of the formulation of the idea make possible different *directions* in which it can be made precise and testable. The conjunction of the idea-formulation and *one* of the expositions would serve no purpose, and the conjunction of the idea and several elaborations would be inconsistent.

Simple expressions of an idea function as points of departure for strings of sentences with increasing levels of preciseness. Each such string of sentences represents an elaboration in a particular direction.

The importance and also the limitations of “point-of-departure formulations” are clearly seen in the case of the three sentences: “the universe has about the same properties all over except for local irregularities,” “the night is dark,” and “stars are very bright.” From plausible assumptions we can derive the claim that it “ought to be” very bright at night—even infinitely bright. Why is this not so? One suggestion is that it is due to loss in energy of electromagnetic waves originating from very distant nebulae—the Doppler effect.⁷ As soon as we depart from the everyday formulations and survey precisizations in terms of theoretical concepts, the multiplicity of frameworks makes comparison of theories problematic. The observational statements are, just as all others, reformulated into technical jargon. When theories are still considered to be competing theories, theories “about the same subject matter,” and their observational relevance and the status of their agreement with observation are assessed comparatively, it is because the connection with such crude formulations as “the night is dark,” etc. is maintained. Only in this way can there be a common ground and therefore room for agreement and disagreement.

The indefiniteness of content of any interesting theory (due to a multiplicity of versions) makes it impracticable, once and for all, to delimit the class of its consequences or to give any definite rule such that derivable propositions can be separated from nonderivable ones. This immediately rules out the possibility of *surveying* the potentialities of severe tests, falsi-

fication, refutation, and all the other interesting properties. Sampling, not surveying, is a basic need in research.

The usual kind of statement, “Hypothesis H is (strictly) derivable from theory T ,” is substantiated by giving an exposition of (part of) the theory T . If no definite exposition is explicitly or implicitly mentioned, the derivability claim is gratuitous. There is a maximum claim of derivability, “Whatever the exposition and version, H is derivable,” and a minimum claim, “There is at least one exposition of at least one version such that H is derivable.” Considering the diffuse “borders” of the class of versions, the latter claim is rather indefinite. A derivation counts as strict when suitable additions to the premises taken from the theory itself are known or, rather, supposed to be known.

Historically, defenders of competing theories do not agree over what is derivable. An instructive example is the systematic and persistent disagreement between the camps of E. C. Tolman and C. L. Hull during the 1930s over the consequences of each other’s theories of learning. However, it might be argued—with some but not, in my opinion, sufficient justice—that Tolman only had a theoretical idea not a theory, and—with less justice—that Hull lacked a theoretical idea, and therefore also lacked a complete psychological theory. In the case of Lavoisier and the defenders of the phlogiston theories, the old generation did not catch up with the young—they did not have time, energy, and talent enough to answer the criticisms of the Lavoisier crowd. Thus, it came to be said that this and that “cannot be accounted for” by phlogiston, that certain experiments contradicted the theory, etc. This was quite convincing, as criticism is apt to be when derivations from a theory are made not by its users and defenders, but by its fiercest critics. Retrospectively, one must admit, however, that a revival of the phlogiston theory after 1785 would have necessitated the relinquishing of what is arguably the theoretical idea itself, retaining only those basic assumptions that did not imply that something is added to an oxide in processes by which metals are obtained from oxides.

“The supreme value of a new theory is its power to predict new empirical laws” (Carnap 1966: 231).⁸ If we stress the second, and not the first, occurrence of the term *new*—and I think we are justified in doing so—the evaluation of a theory cannot be made once and for all: the derivation of a new law is a *discovery*, with all the unpredictable and astonishing properties of discoveries. Further, successful derivations of new, potential laws

may occur after strong disconfirmations, because derivations often do not depend on the total theory as necessary premises. The weak parts, those responsible for the disconfirmations, need not have been used. Or, even if they have, the new baby is there, whether or not the mother is delinquent.

A theory may revive, blossom, and outstrip another long after it has been declared dead. There is no way of excluding the possibility of a revival—and why should one try? To determine what is beyond the reach of a theory is beyond the reach of a metatheory. This does not imply that it is unjustifiable *to state* that this or that is beyond the reach, say, of classical physics. But care has to be taken not to overestimate in one's assessment of probable life span, evidential or logical support, or importance for research policy. What is said one day to be utterly beyond the reach of a definite theory, may, on the next day, be considered well within its reach. Such changes can be studied anywhere, in any science. A noteworthy example is the existence of what, in cosmology, is called "the red shift."

[It] was first predicted by the earlier studies in the 1920s of the consequences of Einstein's theory of gravitation applied to the universe as a whole. Its discovery was therefore viewed as the most spectacular of the triumphs of that theory, which dominated a couple of decades of cosmological thought. But it was shown very beautifully in 1932 by Milne, McCrea, and McVittre that the "expanding universe" is contained in any effort to describe the cosmological problem in gravitational terms, even using pure Newtonian theory.

(Morrison 1965: 135)

The red shift, if the above is correct, might have been predicted from Newton's theory.

This example illustrates well the inexhaustible character of the class of consequences of a theory. Thanks to the complicated character of derivation, a complete survey is impossible. The most surprising derivations may crop up at any time.

The value of indefiniteness, or the impossibility of attaching a well-defined meaning (Kramers), and vagueness, is not absolute, but is connected with the one-many relation between a theory and versions of a theory. Rigidity destroys the elasticity and rich suggestiveness on which a theory thrives. Moreover, even when crystallized into very precise versions, the class of a theory's consequences is unsurveyable and in constant change because of changes in its auxiliaries.

Value and Function of Indefiniteness and Unsurveyability

The *main* reason for the foregoing reflections concerning notions of theory is not to press any definite terminology on anyone, but to suggest that the variety of opinions marketed as opinions on *theories* are maximally informative only when we take into account the variety of usages of “theory.”

IV

The Unimpressiveness of Impossibilities

Possibility of the Impossible: “Anything Is Possible”

The life of a theory may be long and dramatic: we may speak of its conception, fetal existence, birth, and infantile development; of triumph and defeat; of alternating phases of rejection and acceptance, domination and humiliation, stagnation and senility; and of astonishing rejuvenation and revival. Dark periods of neglect may alternate with stages of excessive popularity. (Seen in this perspective, it is not astonishing that the history of scientific theories now entices so many brilliant students of history!)

Among the well-known revivals is that of Ludwig Boltzmann’s theory of the atom. Boltzmann was regarded as the last pillar of defense of a lost cause, the atomistic-kinetic theory.

Very often scientific progress has been made by a scientist who has revived a theory against all odds, against all plausible and reasonable arguments, in the face of utterly conclusive evidence as judged by legitimate scientific standards.

This is the background of the excellent requirement of Edwin Boring that originality not be measured by absolute newness but by newness in relation to what is generally accepted in the scientific community. Revivals may thus call for more originality than constructing a new theory along the direction of what is already accepted as the most promising one.

There is a fearful contrast between the realistic picture of the exuberant, unpredictable, awe-inspiring life of scientific theorizing and that of a considerable section of the scientific community and the “unenlightened” public. Theirs is a picture reminiscent of the slogan “Grün ist das Leben, grau ist alle Theorie.” There is a tendency to confuse rationality and

THE UNIMPRESSIVENESS OF IMPOSSIBILITIES

understandability with certainty and predictability. "Something *must* be considered impossible, we must know for certain that certain things not only will *never* happen but *cannot* happen." Science is used by the cultured to lift a warning finger to those who let their imagination play with mere possibilities or with what is generally considered to be implausible. But this is a striving for security and results in sleepy conformism. If it is typical of "realism in life," we are tempted to say "Grün ist die Theorie, grau ist das Leben."

Today there is surely no less dogmatism in our scientific communities than at any other time. Or, let us rather pose a question: Who is in a position to judge whether there is more or less dogmatism today?¹ Guessing that there is still some, I feel justified in offering the following slogan: "Whatever the proofs put forth for the impossibility of a kind of happening or process or thing, do not always reject an invitation to inspect an argument for its existence: It *may* exist. *Anything is possible!*"

The word *always* has been inserted because there are, in some fields, so many invitations to inspect ideas that time does not permit serious consideration. In calling "Anything is possible!" a slogan, I do not mean that it is *nothing* but a slogan. It may be taken as an assertion in ontology and made more precise in various directions. Some of them lead to paradoxes or to positions we need not make the effort to defend. Therefore, I find it convenient at this juncture to call "Anything is possible!" simply a slogan.

It has been argued that most scientists, most of the time, would not have worked so hard, and would therefore not have pushed research as far as they have done, unless they had been convinced about the eternal truth and validity of their assumptions, "facts," and postulates, and the unsoundness of any pattern of research different from their own. With certain reservations, this historical generalization seems tenable.

The most important qualification is the following: When a scientist, in his actual work, takes something for granted, without any reservations whatsoever, this does not imply that he holds certain assumptions, principles, or laws to be true or highly confirmed. He is at the moment not concerned with the truth or certainty of *those* propositions. Research practice requires limitation of perspective during each piece of work. This again implies a strong limitation of the philosophical definiteness of intention in application of terms like *true*, *false*, *fact*, *impossible*, *necessary*, or *certain*.²

The above *possibilistic slogan* is not so much directed at the individual scientist engulfed in his extremely limited research program as at the "consumers of science," especially the philosophers and the "educated public," who take their cues from science and are attracted by theories said to be scientific and repelled by those said to be unscientific or not up to date.

To take something for granted—absolutely, and beyond any question—differs vastly when it is done outside a research-problem situation from when it is done inside. The producer of science has a research program in mind; the consumer may have anything in mind *except* just that kind of situation.

The value of the admonition "Anything is possible!" in the face of arguments (in a research situation) for impossibility stems in part from the ambiguous character of the verdict "*x* is unshakeably established." There are so many nonscientific roots of formidable increases in the status of a theory or hypothesis (especially "laws") that it requires exceptional open-mindedness and intellectual power to review the evidence and the chains of derivation dispassionately and with methodological scepticism. The possibilistic slogan requires us to change the question "Is this impossible?" to "Under what kind of (perhaps unlikely) conditions is it likely to happen?"

In daily life and in nonphilosophical writings, there is usually only a difference of stylistic emphasis between "is not" and "cannot be." The extensive use of the latter among natural scientists may have contributed to the belief among philosophers of science that experiments can "show" impossibilities. The eminent scientist John D. Bernal (1967: 25) furnishes us with an example of the philosophically lighthearted use of "could not" and "impossible": "[T]he success of Pasteur's demonstration that spontaneous generation was experimentally impossible. Pasteur had shown that life could not originate except from germs of life already present in the air." Less misleadingly formulated: "In Pasteur's experiments, life 'originated' from germs in the air, and when the air was cleaned of germs, life did not originate. Pasteur rashly concluded: life *cannot* originate except from life."

Some philosophers of science, being great admirers of scientific achievements, are awed by "scientific" proofs of impossibilities. And of course, so-called "postulates of impotency" have had an important beneficial function in certain phases of scientific development. Notable

THE UNIMPRESSIVENESS OF IMPOSSIBILITIES

instances are the “impossibility of transmuting matter chemically” and the “impossibility of obtaining net mechanical energy from a medium by cooling it below the temperature of its surroundings,” and the “impossibility of mass destruction.”

But from the perspective of a historiography covering centuries, the changes in dominant opinion, from “possible” to “utterly impossible” and back, are too frequent and too complex in motivation and justification to be taken as indicative of conclusive discoveries.

In a scientific community—and especially among the young—there are normally traces of hero worship, or at least such a high estimation of certain researchers that when they express a doubt, others are led to doubt, and then to actually find concrete counterarguments. It is very largely a question of authority as to whether a pronouncement of “possible!” or “impossible!” is taken seriously.

Of greater theoretical importance, however, is the scrutiny of *what* is deemed impossible in fruitful postulates of impotency. Let us inspect the postulate “it is impossible to destroy energy.” The principle of constancy of energy has, in the course of a century, revealed its character as a rule (how to calculate) or postulate rather than an assertion. In order to maintain certain invariabilities, specific ways of structuring laws and new “energies” have been put into the equations. That is, there has not been one single theory with a definite energy-constancy theorem as a genuine part. There has been a succession of mutually inconsistent theories that have all been in accordance with a *rule* of energy constancy. Behind the “impossibility” we find a heuristic rule. The impossible is what is *ruled* out. No physical process is declared impossible by the principle of constancy of energy.

The slogan “Anything is possible!” has been related to negations of possibility derived (logically, or otherwise in case of impossibility of phenomena) from theories. But as can be expected from a good slogan, it cannot be rendered in plain informative language without loss. This was already hinted at earlier. If we do so, we get into trouble at once. In analogy with the shift of consideration from “*x* is impossible” to “‘*x* is impossible’ is (only) asserted,” there must be a shift of consideration from “*x* is possible” to “‘*x* is possible’ is (only) asserted.” From there on, we may, once more inspired by astonishing events in the history of science, feel inclined to introduce the slogan “all eventualities except one are impossible,”

stressing that there is only one unrepeatable course of events, or better, "anything may be impossible." After all, there have been completely unforeseen, conceptually confusing instances of phenomena declared to exist or at least to be possible that have later been taken to be impossible—even "proved" to be impossible. So, there is no guarantee that anything that is *defined within a definite conceptual framework* will persist in being taken to exist or even to be possible. But such an "impossibilism" has at the present time—as far as I can judge—no mission. What is lacking in many environments is the clear realization of how little weight a proof of impossibility has if our perspective covers several decades and encompasses the premises and rules of inference used in the proof.

The relation of a pronouncement of "possible!" to definite conceptual frameworks is essential because if such pronouncements are made in a conceptually uncommitted way, they acquire a function different from that within research. Thus, if in an everyday setting I seriously think it *possible* that my horse will win the derby next year running backwards, I am simply wrong. On the other hand, some strange feats of locomotion may well be declared possible in a biological discussion in which the consequences of some new theories are being considered.³

It has been remarked by David Hume and many distinguished contemporaries that a speculative man may hold sceptical doctrines in the abstract that he does not even try to follow in real life. But the converse possibility also needs remarking, that speculative minds may hold dogmatic views in the abstract that do not correspond to their more sceptical ways in real life. An example may make this clearer.

"No physicist would dream of trying to settle experimentally someone's claim to have constructed a *perpetuum mobile*." This I suppose is *wrong*, but wrong as sociology of knowledge and as psychology. That absolutely no such claim would induce a physicist to inspect the construction of a *perpetuum mobile* shows a *theoretical* inclination toward just the same lack of research-mindedness as was shown by those who once refused an invitation to settle experimentally whether there could be movement in heaven or not. But experience shows that at least some, if not the majority, of physicists *are* sometimes willing to join forces in experimentation based on a negation of generally accepted "impossibility." They can be persuaded to do this in spite of the nagging question "But isn't this completely absurd?" It was once agreed that movement (in a certain sense) in

heaven was *impossible*, and how could an impossibility in principle be overruled by experience? The answer is that anyone who is free in his abstract theorizing can conceive an “impossibility in principle” from the outside—as an *asserted* impossibility, a claim, and therefore perhaps merely an error of judgment. With even a little stretch of the imagination, definite sources of error can be conceived, and with still less stretching, definite *kinds* of sources. The situation is then seen in a new perspective. Change of perspective saves us from many dogmas.

One might object that a case of *perpetuum mobile* cannot be settled *purely* experimentally: there is a successful theory from which the impossibility follows. A rival theory would have first to be created from which either the impossibility does not *follow*, or from which the possibility follows (that is, by being clearly compatible). This objection, however, has in part to do with credibility or acceptability as part of a working program. Together with a (seemingly competent) theory at hand, it still makes sense to inspect an experiment that is said to “show” something impossible (according to the only well-elaborated theory available).

But granted that one might be willing to inspect such an experiment rationally without having been confronted with a theory, the objection could still be made that as the *perpetuum mobile* would have to go on forever, no human experiment could convince a man who believes in mortality that the matter could be *settled*. This, however, would be a clear case of interpreting the settling of “empirical” research questions in the sense of definitive verification. The conditions required for justifying the verdict of “settled!” are not of this kind. They contain a pragmatic component and involve a *decision* to stop further inquiry when prospects for obtaining evidence that could unsettle a tentative, ad hoc conclusion are dim.

Today we shake our heads. How could people believe in the conclusiveness of the proofs of immobility in the heavens! We laugh at their expense. And we add, perhaps, that of course *any proof of impossibility starts from premises and uses rules at least one of which is nonevident*. What is easily forgotten, however, is that this mood of openness is apt to vanish as soon as the historical perspective is replaced by the systematical and contemporary.

The term *physical necessity* is often used in regard to well-established physical laws. Any process inconsistent with what is well established is accordingly called physically impossible. The necessity

talked about here is not logical necessity, but deducibility from a dominant theory. However persuasive the theory may be, human creative imagination conceives other possibilities, and sometimes they materialize. That is, after some time a new theory, inconsistent with the old, well-established one, becomes in its turn well established. The old "laws of nature" are reformulated in the new jargon, or sometimes given up. Thus, only by equivocation are so-called physical impossibilities taken to be permanent obstacles. If a creative chemist—to take an interesting example, Linus Pauling—publishes a statement that flatly contradicts extremely well-established laws, the possibility of discarding or modifying those laws is seriously contemplated. I refer to the account by J. D. Watson, who competed with Pauling in constructing a model of DNA. A manuscript by the latter, outlining a solution, fell into the hands of the former, but it contained some highly "unorthodox" chemistry. Says Watson (Watson 1968: 161), "We could not but initially worry whether Linus' model followed from a revolutionary re-evaluation of the acid-base properties of very large molecules. The tone of the manuscript, however, argued against any such advance in chemical theory." (Watson's ultimate conclusion: Pauling had committed a mistake that would have stamped a student as "unfit to benefit from Cal Tech's chemistry faculty.") Either revolutionary advance or crass blunder! These are the alternatives often considered. Of "impossibility," little is said in actual research.

According to Popper (1961: 430), "there may be structurally different worlds—worlds with different natural laws." His view is fully consistent with "possibilism": "Natural necessity or impossibility"—a somewhat wider concept than physical necessity or impossibility—"is like musical necessity or impossibility," imposing "structural principles." It is like the impossibility "of a four-beat rhythm in a classical minuet, or the impossibility of ending it on a diminished seventh or some other dissonance." The main point in my argumentation is that it is still, and is likely to remain, an open question whether "the world," if considered as a musical creation, is a classical minuet, or a minuet of any kind whatsoever. Natural necessity or impossibility imposes structural principles "upon the world" (*ibid.*), but leaves "a great deal of freedom to the more contingent singular facts—the initial conditions" (*ibid.*). But hypotheses of the kind "*x* is a case of natural impossibility (or necessity)" have no function in research except as ad hoc rules and do not restrict freedom in any way

whatsoever. In the terminology of Wittgenstein: science is a game in which we change the rules as we go along.

According to Norwood Hanson (Hanson 1958: 117), “perpetual motion machines and velocities greater than light are not psychologically inconceivable: they are impossible in principle.” It is because of this impossibility that no physicist, according to Hanson, would even remotely consider undertaking an experimental settlement of a claim to have constructed a *perpetuum mobile*.

Here I think a fundamental attitude toward research is involved. From certain exceptionally well-established theories in thermodynamics, one can derive, perhaps even deduce in a fairly strict sense, certain sentences that imply the impossibility of perpetual motions of certain kinds. But what follows? That a theory is ever so well established does not mean that it is established as true. Acceptance of a theory (to work with) does not imply acceptance of it as true or even probable. Therefore, if the negation of a sentence is derived by logic from the theory, this does not mean that the negation is true, or even probable. And if the negation can be interpreted to imply the impossibility of a phenomenon *P*, the sentence “*P* is impossible” does not mean the same as “it is true that *P* is impossible” but rather “it is true that *P* is impossible if the theory is true.” Since the theory is not asserted *as true*, it cannot be derived that *P* truly is impossible.

As John Austin and Ludwig Wittgenstein (and others before them) have tried to teach us, there are many ways of using language, and I take it that the use of language to formulate theories is only one, and a different use from formulating particular truths.⁴ Theories are formed as “normal” indicative sentences, but if *S* is such a sentence, there is, I am glad to say, no exclusive use such that *S* must be taken in this simple affirmative use.⁵ Saying *S* assertively is only one way of saying *S*. But even if the indicative mood were uniformly used in such a way that *S* expresses that *S* is simply true, historiography tends to make us attribute only provisional truth-values to the postulation of impossibilities derived from theories.

Let us inspect an assertion that seems to imply a limitation of possibilities (that is, increase in strength of assertion): “A law sentence expresses an a priori proposition when its user maintains it in the face of all experience” (Hanson 1958: 114). “Confrontation with *all* experience” is

an interesting formula, but how is it applied? Can it be used as a criterion? A physicist may be said to use a law sentence at times t_1, t_2, \dots, t_n . Then he leaves physics, enjoying his pension or simply dying. There is a limit to the number of occurrences our theories about *his* use of the sentence can cover. Suppose we have used modern equipment with tape recorders, television, neurological devices, and interviewers in order to get the richest possible observational basis for our theories. One hypothesis might be, "Whatever this man will experience in his life as a researcher, he will maintain this law sentence." It is clearly an interesting biographical hypothesis, and, if made more precise, only understandable in terms of a comprehensive conceptual system. The conceptions of x *maintains* y are many, and the relation of observations of x and y to the conclusion x *maintains* y is a very complicated one. There are also interesting differences in conceptions of experience and of "sentence." Some would say that we must be fairly clear about whether we are doing research on a formula or on the law that the scientist holds to be expressed by the formula. In any case, a metascientific hypothesis such as " x maintains y in the face of all experience" is unable to furnish any *definite* criterion of "a priori." For example, it can be interpreted as expressing obviously too weak a criterion: "A sentence S is a priori in relation to experiences of class E if and only if S is left unchanged in the face of each element of E ." This criterion is too weak because S might be a priori in relation to most small classes and a posteriori to many rich classes. And again, an obviously inapplicable criterion is obtained if the class is open and therefore potentially infinite. "A sentence S is a priori if left unchanged by users of S in the face of any experience in the past, present, and future." If, after some time, there are no more users of S , a stipulation must be made as to how to conceive the sentence.

It is a valuable feature of Hanson's account of $F = ma$ that he stresses the multiplicity of its functions or uses, and also that he would criticize any concepts of meaning that made use irrelevant to meaning, but I do not see the full realization of the methodological issues involved. If $F = ma$ has at least five main uses, a sentence such as " $F = ma$ has at least five main uses" should not be expected to have less. Nor should we expect that two presumably competent observers and metascientific theorists would class a given instance of the use of $F = ma$ in the same category nor that they would agree on a definite classification of uses. Work done in lexi-

cography and in empirical semantics strongly suggests that there will be a multiplicity of interpretations and different, normally incomparable conceptual frames of reference. What I suggest is that the valuable insistence on plurality of uses must not be limited to *physical* research. It is just as pertinent in lexicographical and empirical semantical research. This has the consequence that argumentation in favor of pluralism is as relevant in those “soft” fields as in the “hard” field of physics.

“The logical point is that some laws *are* maintained in the face of all experience.” Considering scientific development as a process in time and the scientists as actors, the new historiography cannot admit “facts” of this kind. Experience is inexhaustible and no scientists face all experience. If the scientist says, “It is my deadly serious intention to maintain the law to the very last breath of my life,” this is of course an interesting (and astonishingly “unscientific”) statement, but not a sufficient basis for asserting the truth of the claim that the law *is* maintained in the face of all experience. Suppose the scientist adds, “You see, potentially falsifying evidence would be inconsistent with a conservation principle, and, furthermore, the idea of potentially falsifying evidence is psychologically inconceivable.” According to Hanson, he may maintain the law *because of* such considerations (= such hypotheses?). But what if, in the face of some experiences, he appeals to opposite considerations? Hanson himself reveals a potential complication:

Popes die and Commissars are liquidated, the successors may be of opposite opinion: A man might hold to a law against all counter-experience because, for instance, a Pope or a Commissar instructed him to do so. We deplore his reasons, but the logical issue remains unaffected: he uses the law sentence concerned in an *a priori* manner. (Hanson 1958: 115)

So, if the pious scientist outlives n popes who all give different instructions concerning the acceptability of propositions p, q, r, \dots does he nevertheless “use p, q, r, \dots in an *a priori* manner” at every turn of events? For our present discussion, it suffices to conclude that if the actual (factual) obedience to an instruction is made relevant for the question whether a formula expresses an *a priori* proposition or not, there will be room for many conceptions of “*a priori* proposition” and its relation to “use of a sentence in an *a priori* manner.” They will be dependent on contemporary conceptual frameworks in social psychology.

Investigation of the occurrences of certain terms and sentences, applying the available methods and techniques of linguists and social scientists (including historians), discloses the complicated and indirect relations between observational journals covering the occurrences on the one hand and hypotheses about use, function, meaning, import of the terms, and sentences on the other. If investigations could be carried out today as adequately as analogous investigations of occurrences of falling bodies and electric sparks, my guess is that one would find both the relation of theories to hypotheses and the relation of theories to observation to be just as indirect as in mechanics and theory of electricity. *There is no less room for pluralism in metascience than in science.* Metascience is in this, as in so many other respects, nothing more than a part of science.

The difference between acceptance and acceptance as true is apt to influence behavior. A physicist may accept the theory of relativity and accept as logically correct the derivation of sentences implying the impossibility of velocities (of matter) greater than that of light, but if there is a rumor of theories being worked out that do not deny supervelocities, or of experiments that might even show the existence of such velocities—well, wonderful! Nothing makes him more curious than the possibility of “seeing” something violate his fundamental scientific assumptions. There is joy in transcendental stupefaction! One must be prepared for what cannot be anticipated!

This point has to do with the strangeness of the relation between theory and practice. Think of a professor of physics just completing, before an audience of graduate students, the proof of the impossibility of velocities greater than light. A colleague and friend rushes in and tells him about an experimental setup just being tried out that indicates the presence of particles with a speed greater than that of light. “Incredible! Impossible! I don’t believe it!” the professor shouts, but adds *without changing his opinion on anything*: “Let me have a look! Perhaps it is *not* a hoax! The class is dismissed! Let us see what is happening at the other end of campus!” And so they rush off to expose themselves to an impetus that *may*—though it is statistically unlikely—change their attitude. (More likely, of course, the rumor of supervelocities would stem from the announcement of *a new theory* with new consequences concerning velocities.)

Any sociological or psychological model of the rationality of scientists that would rule out this open-mindedness of a physicist toward the

THE UNIMPRESSIVENESS OF IMPOSSIBILITIES

“impossible,” is not only wrong but pernicious. “Anything may happen!” Whatever the articulations in the way of proofs, semantical, mathematical, or logical, they cannot rationally determine their own weight.

Man is capable of reflection, and of reflection about reflection. This makes it always possible for him to go from the n th to the $(n + 1)$ th level. When he has just completed a proof and accepted its conclusion as inevitable, an incident may make him ask “Does it hold?” And even if it holds, has it any bearing on any phenomena? Or, if he persists in being completely convinced, he can make his state of mind an object of research; he can move from living *in* the certainty to living *in* the reflection *about* the certainty, thus making way for the thought that there is a difference between the provenness of the theorem and the state of mind of being completely convinced of its provenness. This again makes a dialogue possible with one who rejects the provenness and makes it possible to work with the assumption that it is not proven. The awareness of this makes it natural to utter “anything is possible,” *angelikos*, in the manner of the Pyrrhonian sceptics.

It is not only basic views of rationality (read: pedantry) that are used to oppose open-minded recognition of possibilities, but also some of irrationality: Scientists, it is said, *belong* to traditions, societies, communities, and ways of life inside which certain possibilities simply *cannot* be seen. People *must* believe in certain presuppositions essential to their tradition. But however fruitful the constructs “tradition,” “society,” “community,” and “ways of life” may be, they should not be taken too seriously. Geyl, Sorokin, Popper, Gellner, and others have successfully opposed the social determinism of Spengler and contemporary philosophers. Within certain sections of the populace, definite views may *dominate* for shorter or longer periods of time, but where one has had the opportunity to make detailed studies, instances of contrary views are found, and no psychological or social determinism has been able to show that those following the mainstream of opinion are completely impregnable to views that go against the dominant ones.

In short, the acceptance at time t_1 of this or that as impossible does not exclude rational openness toward an argumentation for the existence of the so-called impossible at some future time, t_n .

The acceptance of the possibilist slogan may often have little influence on behavior, or more generally, on *praxis*. Comparing the pairs of con-

clusions: "x is necessary" / "x is extremely likely to be the case" and "x is extremely unlikely to be the case" / "x is impossible," there are no consistent differences of weight within the pairs when it comes to questions of research policy. Accepting the slogan means primarily that, under special circumstances, one *uses* as an assumption in actual research, *works out* consequences of, *plans* tests for, and *presumes* the existence of what is generally taken to be nonexistent and incapable of existence.

"But *ultimately* don't we strive as researchers for *knowledge*?" Why this high evaluation of knowledge? There is no clear argumentation that brings us from statements like "according to the now generally accepted theories, x is the case" to "it is known that x." On the whole the stress on knowledge has degenerated into a stress on certainty, permanence, dogmatism, and pedantry.⁶ That research is ultimately motivated by a need for certainty is a dogma that has recently been undermined successfully (for example, by James, Popper, Polanyi, and Feyerabend). This cannot but affect the status of knowledge as a kind of resting place, which is contrary to the whole idea of unending, expanding research.

Research may be motivated by a need to systematically explore intensively exciting and illuminating possibilities whatever the chances of finding evidence that will eliminate the speculative character of the hypotheses. Let us say a researcher works with propositions with four very different levels of "certainty" or of "plausibility." There is nothing in research methodology or a "psychology and logic of research" that indicates that working with only the highest level must be the most satisfactory from some or all points of view.

An example: From time to time rumors reached the Copenhagen circle (Bohr and associates) in the 1920s that a really devastating argument had been found somewhere against quantum mechanics. Bohr and his many outstandingly talented collaborators would then hastily get together and in an atmosphere of almost diabolical fervor try out the strongest possible versions of the argument suggested by the rumor. There was the kind of rush to refute their own theory that would have delighted, perhaps even astonished, Popper.

There was not the slightest doubt, however, that if the rumor were true, and some really fundamental, but until now *completely unsuspected*, weakness were found, this would only temporarily halt the progress of physics. There was also probably little doubt that they themselves, the very creators of quantum mechanics, would be able to participate in new

THE UNIMPRESSIVENESS OF IMPOSSIBILITIES

theory construction; there was probably a pervasive belief that *they* would *be able* to reconsider *everything*. In short, the intensive work that went on on the basis of an acceptance of quantum mechanics did not undermine the disposition to listen to and to study any qualified suggestion implying the rejection of the most basic assumptions underlying their work. The most impossible might turn out to be possible, and the unimaginable imaginable. The open recognition of this was made easy by the well-founded self-respect and the realistic assessment of the capacities of the group's members. Where there is a feeling of impotency, such openness is, of course, more difficult. But in no case is it necessary to accept an ideology of the finality of results.

A study of history suggests that, statistically, this openness is exceptional, but the statistics of attitudes is not the only relevant discipline in assessing what acceptance of a theory means to a researcher in times of the maximum employment of his talents.

Feyerabend stresses that the elaboration of a new cosmology requires a step back from the available evidence—the new cosmology may well start with zero or negative *observational* support. One must therefore not ask of an idea—the nucleus of the emerging new cosmology—that it show its credentials *before* being elaborated in various directions. When an established “impossibility” is rejected, it may still be much too early to ask for *how* it is possible. A theory may tentatively be accepted that makes room for a *perpetuum mobile* without any idea of *what* a *perpetuum mobile* would look like, or *how* it would be possible.

So-Called Completeness and Maturity as Signs of Abandonment

Philosophers who argued against Einstein in the 1920s used a kind of “ordinary imagination” argument to block efforts to overcome the limitations of one's theoretical imagination, treating it as a static factor and not a capacity like that of calculation, which can, and sometimes must, be developed far beyond its temporary limits. There are no *preliminary* checks to an idea; ideas in research are themselves preliminary. Therefore the competition among ideas is always completely open. If a scientist is capable of elaborating an obscure but simple idea in such a way as to elevate it to a scientific level of preciseness and testability, so much the better—the

more independent ideas there are, the more starting points for renewal and decisive progress. The bottleneck is, of course, our limited capacities and eagerness for concentrated tenacious effort.

“Any idea can become plausible and receive partial support,” according to Feyerabend. When an idea becomes “the starting point of concentrated effort,” it is connected with preexisting observational journals and expressions of natural laws. *Using* the idea includes reformulating the law formulations and interpreting the observation sentences in terms of the idea. Obviously, these reformulations can hardly avoid giving the idea substantial evidential support. It is a birthday gift to any clever idea. But only future elaboration will show whether the effort of restructuring is worthwhile. The “good” idea flourishes, the “bad” one is given up, perhaps only after considerable efforts that, unfortunately, are left unmentioned in the historical accounts of scientific development. More should be done by editors of journals to elicit reports on laborious research that, despite adequate equipment, has been unsuccessful.

Considering the chances of a theory’s revival, one must bear in mind that its idea is an already “elaborate” one, and that the competing definite precise formulations along the axes or directions of precization are different in content and that the conjunction of the professional versions is therefore contradictory and, of course, not expressive of the idea “itself.” Suppose we were today to revive “the” phlogiston theory, a most “unthinkable” and thankless job. If we took the professional versions from 1785 and later years as a starting point, we would have to make more and stranger ad hoc assumptions than if we took up the theory at an earlier stage, before it had been elaborated in detail. Revivals are revivals of ideas, and fragments of ideas, not of definite hypotheses expressed in an “ossified” technical jargon.

Feyerabend’s statement that “any idea can become plausible” is closely akin to our more general “Anything is possible!” It has an important relation to our wide conception of auxiliary propositions:

Not being prophets we must also admit that *any* inadequate view, however often refuted and however implausible, is capable of becoming the crystallization point of a new world picture which, taken in conjunction with a new (and perhaps utopian) theory of knowledge, might in the end prove more effective than the most attractive and most highly corroborated element of the *status quo* (no method can guarantee an approach to “truth”).

(Feyerabend 1970a)

THE UNIMPRESSIVENESS OF IMPOSSIBILITIES

A good slogan can be overworked, and this holds true for “Anything is possible!” Suppose we agree that an event that is impossible according to generally accepted contemporary physical theory is nevertheless possible, or even probable or necessary, according to theories that negate some of the untested or incompletely tested assumptions of these theories. And suppose further that we take it as likely that within the time interval of a few generations, such theories, or theories more widely different from our present ones, will be generally accepted. This perspective is rarely, if ever, relevant in the research work of the vast majority of theorists today. As already mentioned, there is a bottleneck: our limited capacities. A super-human intelligence might well point to certain data, laws, or already known events that foreshadow the next major change in physical theory, but what relevance has this for us? Ernst Mach’s lonely opposition to what was generally accepted could be used by Einstein to create something revolutionarily new, and Einstein himself thought that Mach might have come up with the theory of general relativity if external circumstances had been somewhat different. But where are the Einsteins today, and how can they know they are Einsteins? Questions and considerations such as these strongly suggest that if a researcher is tempted to work from premises, which, in part, negate generally accepted physical theories, the slogan “Anything is possible!” should *not* be used to cheer him up: it is *unlikely* that he will get anywhere. Statistically, the chances of eliciting a new “revolution” are small, and the users of the possibilistic slogan ought not to take upon themselves the responsibility of backing up unrealistic revolutionaries just for the fun of it.

Even if we discard certain crude ideas about scientific development as the accumulation of facts, or tested approximations to truth, we may acknowledge an accumulation of documents and other artifacts of scientific activity. This implies a steadily more comprehensive job of obtaining coherent pictures, and noncontradictory, content-rich theories covering the various loosely connected “ $(n + \chi)$ -dimensional” fields of research. The n stands for uncontroversial dimensions acknowledged in the research communities at a definite time, the χ stands for the new dimensions cropping up in contemporary research not yet digested by, or not yet discussed extensively in, the communities.

In rejecting the image of broad theories being abandoned by simple falsification, or new ones being adopted by more complete verification or

confirmation, we are on the verge of adopting a coherence view of scientific “truth” or “acceptability.” The theory that can “account” for more than any other available theory is to be adopted, “accounting for” meaning “bringing into coherent, at least noncontradictory, intelligible connection.”

But even to require no known contradictions as a necessary condition for acceptability is too strong a requirement in view of the dynamics of theory change. For new theories under construction may, of course, contain contradictions—that is, internal inconsistencies—and nevertheless be perfectly *acceptable*—that is, more worthwhile to work with than any other available candidate. Internal contradictions falsify but do not make unacceptable. Contradictions may be present at any level and between any levels—within the basic formulations (the principles), between the basic formulations and some laws or hypotheses considered to be derivable, between hypotheses, and between hypotheses and observation. Further, there may be inconsistency between the auxiliary assumptions and the science from which they are borrowed. Physicists have often worked with clearly inadequate, sometimes squarely false or absurd, mathematical theorems; assumptions concerning observability have been in conflict with psychophysical experimental evidence and so forth. In general, the worker in one science tends to use obsolete data and hypotheses from other fields and often acknowledges his inability to keep up to date. He *should* be up to date, but he often does well enough without being so.

Conclusion: Even if “coherence” is taken as an important *desideratum*, absence of it does not imply unacceptability of a new or an old theory. “Acceptable” in research is not synonymous with “acceptance as true.”

As regards theories that are no longer under construction—*mature theories, completed theories*—they do not “live” under the most favorable research conditions. The belief in completeness reveals loss of interest in expansion and development, both of idea and of professional versions, or reduction of the use of the theory to mere applications. Thus, the “abnormal” character of theory change is due to the perhaps inescapable situation that most theories, most of the time, are applied, not *accepted* in the sense of “accepted as a set of working hypotheses in efforts at expansion.”

The question of definitive completeness raises the recently discussed question of “permanent revolution in science.” Let us make some distinctions: A change from theory *A* to theory *B* may be called revolutionary

only if there is a conceptual incomparability between *A* and *B*—due to profound changes in conceptual framework or practice. As long as *A* can be translated into *B*, and vice versa, there is a continuity that one might consider evolutionary, not revolutionary.

Using this concept of revolution, it is difficult to see on what grounds any revolution should be considered to be a final revolution, however long human beings occupy themselves with science. The main obstacle to finality might be revolutions in society at large. These are likely to affect the practice of science in subtle ways that are resistant to articulation (even if in principle expressible). With sufficient changes, old theories will cease to be understood or be understood in ways too different to make it reasonable to maintain that the old theories are still accepted.

The supposed infinite complexity of nature (and man) does not itself preclude a halt to scientific revolutions. Here I agree with William Kneale (1968: 38). But as regards the possibility of a future, conclusive, complete, and comprehensive theory, I do not see what could reasonably be meant by that. Or, for that matter, by completeness of a science, even if defined soberly as follows: “A science is complete when it gives as much descriptive detail as is desired for the domain of the science and when the theoretical structure of the science satisfactorily explains all the facts of the science” (Schlegel 1967: 46). If, in a new science, there are only two facts and only one researcher with weak desires, completeness seems easily reached! Desires are fragile criteria.

A theory might be termed complete in terms of a definite frame of reference and definite aims of inquiry. Thus, there is a “complete” theory of crystals in the sense that there is a generally accepted theory of all the “possible” 230 forms of crystals. But frames change, as do judgments about possibilities, and there are indefinitely many properties of crystals, not all of them covered by any theory. And it is a wide step in generalization to move from a kind of temporal, aim-related, and therefore highly relative assessment of the completeness of a theory to that of a whole science. I see no point in introducing concepts to characterize the completeness of a science.

The Inexhaustiveness of Ideas: A Semantical Model

The relation between a vague and ambiguous but suggestive theoretical idea and a precise exposition may be schematically presented semantically as a movement from a vague and ambiguous but suggestive *formulation*

(“light is waves,” “electricity is a fluid”) to less and less vague and ambiguous formulations along a definite direction, a direction of increased preciseness (a direction of precization) or greater specification. A resultant fairly precise and specific “version” of the theory is tested in various ways, including observation, but only as a stage in a larger movement. Whatever the success of a particular version, the scientist returns to the vague initial formulation (“the T_0 -formulation”), develops new hunches, and proceeds along a new direction of increased preciseness or of greater specification. If T_{11} and T_{12} are formulations at the systematic second step of “making more precise,” they are (by definition) heteronomous, clearly separated in cognitive content (see p. 129). The conjunction of two sentences that are more precise than a given one, say T_{11} and T_{12} in relation to T_0 , may or may not be logically inconsistent with each other, whereas conjunctions of competing versions of a theory will normally be mutually inconsistent.

If, over the course of time, various precise formulations have been accepted and then later rejected, and a new theory begins to gain a foothold, there is sometimes no energy left to consider another movement from the original idea. This situation is well expressed by saying that “the theory is dead.” But unlike humans, theories do not decompose after death; revival is easier for them than for us. After having been dead for a very long time (in scientific communities), Goethe’s theory of color has experienced a strange revival, but (of course) not as a theory competing with that of Newton (Holtsmark 1969). Cognitive competition requires cognitive comparability.

Possibilism and Permissiveness: Crazy Ideas and Connectability

In a notorious article in *Nature*, it was “shown” that the time of gestation of animals as different as cows and rabbits is a multiple of the number π . “Scientists have rightly refused to pay any attention to this evidence,” says Polanyi (Crombie 1963: 376), and he adds, *inter alia*, that “if scientists did not suppress the offerings of cranks, science would be swamped by trash.” I would rather say: if scientists and philosophers did not brush aside manuscripts that on the basis of very superficial reading seem cranky, their time would be totally consumed reading such papers.

Does the possibilistic slogan applied to theoretical impossibilities tend to encourage excessive tolerance in dealing with implausible, crazy, or irreparably vague conjectures? I do not think so.⁷

Let us consider one of the many factors determining which manuscript (among the formidable cascades of paper) to read carefully. Suppose I am asked to read a manuscript and start reading sentence p on page 20. It seems utterly crazy to me, but why? Because I think that p implies q , and q is obviously false. On page 21, I see that the author offers a very good reason for the view that, strictly speaking, p does not imply q but, rather, r . This interesting little triumph of the author makes me willing to examine reasons he may have for accepting r , a rather unlikely proposition in my opinion. If the author in a precise and convincing way supports r , the initial craziness of p has now abated a little. It may, however, require hundreds of additional tests to prevent me from concluding that among the innumerable seemingly crazy papers, this manuscript does not deserve the very high priority it needs to warrant close inspection. In this connection I would recall the notion of “connectability,” profitably used by R. von Mises and others, which is essential to most forms of conventionalism and to coherence theories of truth. If we connect pairs, triples, and greater classes of intuitively unlikely propositions, we shall rarely attribute higher degrees of likeliness to the classes of conjunctions. If confronted with a proposition that seems crazy, but is possibly true in the wide sense of “possible,” we normally require knowing how it connects with a large number of other propositions. In some cases, the connectability with a large class of propositions is such that the class “retroactively” strengthens the likeliness of the “crazy idea.” The idea “coheres” within a larger, consistent whole. This, for instance, is the case with certain ideas in Velikovsky’s *Worlds in Collision* and his published defense of them. But some people nevertheless ask for larger areas of connectability in order to change their verdict of “crazy!” Ultimately, the tribunal is that of philosophical systems giving definite meanings to propositions in “scientific” encyclopedias. The ideas of *Worlds in Collision* are such that, even if they are coherent with the vast body of historical sources appealed to (among others, the Bible), they still have to be confronted with modern astronomy and with general methodology and epistemology, the latter because of the author’s (perhaps) greater reliance on historical sources than on those of natural science.

Suppose researchers *P* and *Q* agree that *if* set *A* of rank dimensions is adopted, then theory *T* is superior to theory *U*; and *if* set *B*, then *U* is superior to *T*. We shall say they agree that the sets of propositions *A* & *T* and *B* & *U* connect, whereas *B* & *T* and *A* & *U* do not. But as metaresearchers we may ask: Are *P* and *Q* *factually* right? Is it the case, is it true, is it really so that *A* & *T* connects? The direct answer is not an answer that *A* & *T* connects (or does not connect). We shall assess the nature of the theorem “*A* & *T* connects” and, if things are complicated, the kind of research that is relevant in order to find the truth. On the basis of this investigation we shall adopt criteria of verification and falsification of the theorem. If metaresearchers *C* and *D* arrive at different sets of criteria—for example, after a rational discussion of epistemological issues—they might agree on the conclusion that if set *C* of criteria is adopted, “*A* & *T* connects & *C*’ connects” is true, whereas if criteria *O* are accepted, “*A* & *T* connects & *D*’ does not connect” is true. The conclusion is in terms of connectability.

But *C* and *D* may, of course, start a factual discussion about whether their conclusion is correct: do the connectabilities in fact hold? Thus at no level are there *only* questions of connectability. Questions of facts, of “agreement with how it really is” can be or must be posed at all metalevels. This argument is valid not only for the concept of connectability, but for that of coherence as well.

If a definition of truth in terms of agreement with fact is compared with a definition of truth in terms of coherence, there are strong reasons for rejecting the latter rather than the former. But if a criterion in terms of agreement with fact is compared with a coherence criterion, no definite conclusion is warranted before one knows approximately how tests of agreement with facts (a-tests) are compared with tests of coherence (c-tests).

Popper’s argument in rejection of coherence (Popper 1963: 226) is weak because he does not seem to distinguish definition from criterion and coherence from logical consistency.

The important question is not whether something is possible, but whether it is worth studying and working with. Research programs are not, and should not be, easily changed. A simple declaration that something we firmly believe to be impossible may well turn out to be the case is still not a sufficient basis for committing ourselves to research that might furnish fresh evidence for or against.

Then there is the difference between “wild” *theories* and metaphysical utterances of the lowest level of (research) preciseness. By the latter I mean what Popper sometimes calls “metaphysical” theories (“The world is my idea” and “Perhaps all is a dream”). They are not covered by what I have said in the foregoing discussion of possibilities because they do not in any way satisfy the requirements of a theory set down in chapter 3, p. 52.

If a scientist invites us to *work* with an unestablished theory that explicitly assumes the possibility of something that, on the basis of a justly admired, well-established, “complete” theory, is “proved impossible,” this implies that the new theory has already been worked out in sufficient detail for it to come into clear conflict with other theories. What scientists are apt to call “the philosophies of the schools” have no chance at all of coming into conflict with a theory, either with the kinetic theory of gases or with any other theory with scientific pretensions. The very notion of working with a theoretical idea implies a movement toward preciseness and specification. The slogan “Anything is possible!” is introduced for and *intended to operate* in research situations, and nowhere else. It has a built-in reference to “work.”

Working with Many Theories, in Many Ways: Theory Proliferation and Diversity of Praxis

As regards implausibility or “craziness,” it should be noticed that the possibilistic slogan only points to or suggests possibilities. It is not an injunction to work with *any* conjecture whatsoever. In addition to a so-called proof of impossibility (based on a well-established theory or “law of nature”), there may be *decisive* arguments against working with a particular hypothesis. Normally there are innumerable possibilities in a problem situation and a decision to pick out one approach for detailed consideration presupposes (needless to say?) additional qualification. Possibility is not enough for action. A decisive argument against working with a hypothesis is rarely a decisive argument against the hypothesis considered as a proposition. Work has to do with here and now, with persons, priorities, propensities, and time schedules. Work requires *someone* to work, whereas no one is called on to do anything about an abstract—however emphatic—assessment of truth, probability, likelihood, or possibility.

Therefore a decisive argument for accepting or rejecting something as a working hypothesis must be distinguished from accepting or rejecting something in the abstract as probable or improbable, true or false, likely or unlikely.

The possibilistic slogan tends to counteract the prevailing tendency to view a decisive argument against the *adoption* of a theory at a definite moment by a definite group as a decisive argument against the theory itself. It does not tend to encourage the adoption of any definite theory. That forces a reduction in the free inspection of alternative theories. The possibilistic slogan encourages serious consideration of alternative theories in the atmosphere of pluralism. It encourages this in defiance of the many so-called impossibilities. These are perhaps no more than expressions of current dogmatism, thoughtlessness, and narrowness of perspective. "I believe that, in the pursuit of physical science, the imagination should be taught to present the subject investigated in all possible, and even in impossible views . . ." (Michael Faraday).⁸

In view of the very limited time and capacity of a definite individual or a definite team, the vigorous pluralist approach in science can only be realized in large communities of researchers.

The above does not imply any agnosticism or any "*ignorabimus*" in relation to reality. "Through science and philosophy we get to know reality." There is no good reason to reject that slogan. But we cannot seriously impose any definite structure on reality to the exclusion of others with *correspondingly* high coherence, or with an *incomparable* degree and area of coherence due to divergence of criteria of coherence and relevance. Rather than supporting agnostic attitudes, the possibilistic slogan supports the Copernican view of science, against the medieval or positivist, in the terminology of Polanyi.

About Copernicus, Polanyi says:

But he was irresistibly compelled by the appearance of his own system to claim that this particular feature of the celestial order, though derived essentially from experience, was true and real. Thus did he make for the first time the metaphysical claim that science can discover new knowledge about fundamental reality and thus did this claim eventually triumph in the Copernican revolution. Such is the claim of science to know reality, that positivism disowned in our time; and it is this same metaphysical claim, now widely discredited, that I want to re-establish today.⁹

THE UNIMPRESSIVENESS OF IMPOSSIBILITIES

The claim of Copernicus as revealed in his theories is that of showing how the solar system really is. But there is no claim of irrefutability, of impossibility of retraction, in his work. Individual scientists indulge in pleasant fantasies concerning the importance and permanence of their contributions. The phrase “thus it is, and not otherwise” does not in itself indicate any absolutism when confronted with the large perspectives of scientific development through the centuries. Copernicus rejected the notion that his theory was only a mathematical tool; he stressed its physical character, but this does not directly relate to the questions of pluralism and possibilism.

The new historiographical trend shows the importance of the theoretical *idea* rather than any definite *exposition* of a theory. There is, however, another feature of a theory that is stressed: the conception of the *function* (rather than propositional or cognitive content) of the theory and its methodology within the total structure of scientific *activity*. The revolution that began with Boyle concerned *how to do chemistry*; it was not limited to a search for tenable or, even more narrowly, “true” hypotheses and theories. It therefore also has to do with what to expect from a theory, the motives of theorizing. One phrase dominates most of the answers: the aim of a theory is *to explain*. But it seems that a fairly comprehensive description of scientific theorizing cannot be in terms of explanation—if we do not wish to take the term in an excessively wide meaning. A more suitable term, because it is more general, is *to cover* or *to account for*; a theory aims at covering, and, if successful, *does cover* certain classes of phenomena, facts, laws, other theories, and it *solves* certain problems. As soon as one asks “What does coverage imply, and what constitutes a solution?” one sees that very different answers have been given, some of them using *explain* as a key term, but others are in explicit opposition to this idea or family of ideas (cf. the ideals of description, not explanation, in Mach, Hertz, Poincaré).

If a description of scientific theorizing tries to do justice to very different ways of doing biology, chemistry, physics, and astronomy, then this must affect the very essence of how “scientific theorizing” is conceived in its complete generality. A very broad metatheoretical concept is needed to help frame and place the plurality of kinds of theories and their methodologies. A pluralist approach is needed, otherwise one particular way of doing things is explained as an unsuccessful attempt at doing it another way.

Pluralism of Methodologies: Incomparability

The great Indian mathematician Ramanujan exasperated some of his down-to-earth Western colleagues by refusing to concentrate on *exactly* how he arrived at his astonishing theorems. He tended to revert to his assurance that the goddess of Namakkal inspired him with formulae in his dreams. Even if this methodological perspective opened up by Ramanujan seems rather exotic, its importance is unquestionable: it reminds us of the nonclosed character of the search for methodologies. Anything can happen to any methodology, however well established. But a new methodology must somehow impart to the defenders of the old methodology the impression of both success and universalizability. Ramanujan was perhaps the favorite of the goddess of Namakkal; she might inspire Westerners with wrong formulae.

Insofar as ideas on the function and methodology (“how to proceed”) of a theory are “built in” and assumed valid when the theory is advocated and used, it is cognitively (or at least logically) incommensurable with competing theories of the same comprehensive sort: If you adopt methodology M_1 , theory T_1 is confirmed and T_2 disconfirmed; if you adopt M_2 , T_2 is confirmed and T_1 disconfirmed. Or T_2 appears untestable from the point of view of M_1 , and T_1 appears untestable if M_2 is adopted.

The choice of a methodology is a choice of a conception or idea made on a wider basis than knowledge of the field of phenomena covered by the competing theories. It is an intrusion from the outside.

We have already mentioned the frequency of incommensurabilities and the resulting conceptual incomparability relation between “old” and “new.” The *phenomena* or *facts* said to be covered by a theory, when defined implicitly by the theory and the associated practice of research, cannot be independent of the theory itself. A very different theory that in superficial parlance covers the same phenomena, *cannot* cover the same phenomena—there are no theory-independent phenomena to be covered. (If the total classes of phenomena of theories T_1 and T_2 are C_1 and C_2 , and C_1 is identical with C_2 , there must be a set of semantical rules such that the conceptual structure of T_1 can be defined by that of T_2 and vice versa. But semantical incomparability is one of the necessary conditions of a characterization of theories as “very different.” With semantical incomparability at the theoretical conceptual level, semantical comparability at the obser-

vational level [by means of more or less arbitrary *Zuordnungsdefinitionen*] can only be ad hoc and not important for the life and death of the theories T_1 and T_2 .) In such cases, the new theory cannot “take care of” the phenomena or facts covered successfully by the old one. They are not defined and identified in relation to the new theory. Some designations may, however, survive the transfer. For example, “acid” and “vitriol” survived several methodological revolutions in chemistry. But, we must emphasize that in our use of the term *designations* here we are not merely speaking about words.

If there is a kind of isomorphy between the kinds of phenomena in the new and the old, the adherents of the new theory must be able to answer the “Where do you talk about such and such phenomenon?”—questions of the adherents of the old—with “To the phenomenon P in the old theory corresponds phenomenon P^* in the new.” The new theory does not say that P does not exist, nor does the old explicitly exclude phenomenon P^* —how could it?—but there are conceptual differences. P cannot be “named” in the new, and P^* cannot be “named” in the old.

The progress of the new over the old may now (in part) be said to mean that there are isomorphic relations of a P^* to any P in the old, and in addition, the new theory accounts for some P^* for which there are no analogues in the old, and which the old *cannot* accommodate.¹⁰

This way of seeing things also counters the tendency to view confirmation or disconfirmation as being of decisive importance. The superior quality, the “goodness” of the new theory, cannot be expressed in terms of falsification of the old, and the phenomena P^* , which are completely beyond the old theory, could never have been envisaged by the adherents of the old. However eagerly the adherents of the old theory would have looked for refutations, they could not have found any relating to those phenomena.

But such a conclusion may not be the last; there is no reason for not modifying certain well-developed concepts of confirmation, taking account of the relation of isomorphy between old and new “phenomena.”

Feyerabend (1970b) seems to argue along similar lines. The usual way to compare two successive theories is by an examination of consequence classes (Feyerabend 1970b: 219–20). When a theory T is superseded by T' , the accepted scheme of this comparison explains why T fails where it does, why T has been at least partly successful, and where T' makes additional

predictions. In a case study (comparing the classical celestial mechanics [CM] and the special theory of relativity [SR]), Feyerabend shows that these theories are incomparable. Their common class of consequences is empty. He goes on:

Even the case $c \rightarrow \infty$ (or $v \rightarrow \infty$) which gives *strictly identical predictions* cannot be used as an argument for showing that the concepts must coincide at least in this case: different magnitudes based on different concepts may give identical values on their respective scales without ceasing to be different magnitudes.

His conclusion is, “A comparison of content and a judgment of verisimilitude cannot be made” (ibid., p. 222).

All these reasonings seem to be based on a concept of “comparability” applied to the consequence classes of the theories to be compared. The existence of a nonempty class of sentences that follow from both of the theories is required to make the accomplishment of the comparison possible. The aim of such a comparison seems to be to decide which one is the closer to the truth (ibid., p. 220). There are cases, like the actual CM-SR case, which do not fulfill these presuppositions. The conceptual diversities are too great. With this I agree, but I want to object to Feyerabend’s scheme of comparison. I do not accept that it cannot account for the *relation* that permits him to speak of “*strictly identical predictions*” (ibid., p. 221), even if no precise comparison of consequences is possible. He says:

Now extending the concepts of a new theory T to all its consequences[,] observational reports included, may change the interpretation of these consequences to such an extent that they disappear from the consequence classes of earlier theories.

This I accept, but does the new theory in Feyerabend’s case cover quite a new area? Is it not a theory that *competes* with the older? How is it that the new theory can be said to supersede the older one?

As long as predictions from CM and SR are formulated at a high level of preciseness, they are incomparable and therefore never “strictly the same.” But, descending the ladder of professional preciseness, we arrive at the level of everyday talk about velocities and lengths. At this level, where our sentences are intimately connected with a *praxis* that is loosely shared,

whether we work with CM or SR, the predictions *are* comparable. One may say that, robbed of their precise frame of conceptual reference, what we compare are not predictions unambiguously related to CM *or* SR; the necessary discriminations are lost. But the main point is to admit the indirect but inseparable connection between the precise formulations and the everyday level formulations (“the T_0 -level”). If we do that we can retain our view that CM and SR cover roughly the same area, that they compete and sometimes yield different, sometimes the same, predictions and that in a very important sense SR (and general relativity [GR]) have superseded CM. Classical mechanics and special relativity are comparable and commensurable, but not at the precise conceptual level.

The methodological anarchism or dadaism of Feyerabend (1970a: 17, 21, 104) is compatible with my pluralism, but there is a major difference of emphasis. For me, the notion of philosophical systems is central. I require a strong, “puritan” stress on internal consistency, or rather coherence, between a researcher’s and a community’s logic, methodology, epistemology, ontology, ethics, and politics. The hedonistic “Do as a researcher what you wish and have a pleasant time” is qualified by the addition “and, if a philosopher by inclination or necessity, be clear and coherent in developing your synthesis.” Because of requirements in other parts of the system, one’s methodology in scientific matters *may* have to be rather rigid. Anything will *not* go.

The Heuristic and Systematic Role of General Systems: Metaphysics, Maturity, and Stagnation

There is a growing acknowledgment of the *heuristic* role of ideas developed in the main philosophical systematizations since the time of the pre-Socratics. Referring to the participants in a recent research colloquium, Paul Weingartner is able to conclude as follows:

Die Teilnehmer stimmten darin überein, dass sich bei entsprechend gewissenhaftem Erforschen und Zurückverfolgen von Problemen der Einzelwissenschaften bis zu ihren Grundlagen die Notwendigkeit der Erörterung metaphysischer Themen und Theorien ergeben muss und dass die Metaphysik eine nicht zu unterschätzende Rolle bei der Entwicklung und Weiterentwicklung der Einzelwissenschaftlichen Theorien spielt.

(Weingartner 1967: foreword)

The reaction against metaphysical speculation has often had a positive effect on the willingness of scientists to work hard experimentally, and year in and year out to perform monotonous and repetitious acts (endless weighing and boiling in organic chemistry, inspection of thousands of photos of tracks of particles in atomic physics, etc.).

“It has, no doubt, been worth the metaphysical barbarism of a few centuries to possess modern science” (Burt 1924: 203). But mature scientists who enjoy and use speculation in their work are still afraid that young talents skip the pedestrian and sometimes onerous aspects of research. Bondi, the cosmologist, having lectured on some fascinating speculative matters, closed with this advice, “I am delighted if I have interested you in this, but do not do any work in such speculative fields until you have done some good pedestrian work so people know you are a real scientist, not just a crank” (Bondi in Yourgrau 1970).

The acknowledgment of the *systematic*—not only heuristic—role of metaphysics in its relation to science is less conspicuous, but also increasing. Among the many valuable contributions to a shift in attitude, I would like to mention the work of Joseph Agassi (1964).

Marx Wartofsky (1967: 155) defines classical metaphysics as follows: “a rational—that is a unified, coherent and critically appraisable—world-picture; in short, a model of reality.” It is clear that a metaphysics in this sense will function not only heuristically, but also as a doctrine that suggests the form of future theories. Thus, the above-mentioned theory of levels suggests hidden-variable theories of subquantum physics.

Any adequate perspective of scientific development that takes account of the interdependence of science and metaphysics rules out the cleavage between mature and immature science. So-called maturity is a sign of professional isolation and stagnation.

According to Jean-Pierre Vigier, one of the leading physicists who has opposed the Copenhagen interpretation of quantum mechanics, the history of life on earth develops in accordance with concepts such as dialectics, contradiction, and totality. From Cuvier to Darwin, science progressed from formal to dialectical logic. Vigier and others—he mentions de Broglie and Yukawa—accept a theory of levels (*stufentheorie*) that suggests that there are processes and elements below the size of elementary particles and that research will have to penetrate that level and find the laws operating there. According to this metaphysics, there are an infinite

number of levels, each with a complete and specific set of laws, which, in their entirety, constitute an independent whole or totality (Vigier 1965: 65–85).¹¹

When we go from level n , within the realm of 10^{-n} cm to level $2n$ and enter the world of processes of dimensions 10^{-2n} (or $10^{-(n+k)}$, $1 < k < n$), a new science of mechanics has to be developed in order to take account of the more complex properties of reality. As part of this metaphysics of levels there is an “optimist” epistemology from which it follows that there is no level that cannot be reached by human research.

Behind the optimist terminology there is, however, an acknowledgment of accuracy as a graded magnitude, knowledge as refutable (p being known [as true or probable] at time t_n , not p [as true or probable] at t_2 , and p again at t_3). And when judging assertions such as “science takes over the role of philosophy,” one must remember the Fichtean, Hegelian, and Marxist sources of terminology that make “science” (*wissenschaft*) into a broad term covering systematic, interpersonally and interculturally precise but “dialectically” conceived so-called knowledge. What I shall here call general systems might therefore be covered by this term “science.”

Our perspective is that of systematic, but unending, expansive research—the “spiraling” character of a research project if left to itself. Therefore, we cannot ignore research in the social sciences, psychology, history, and other fields that have as much to do with ourselves as beings capable of understanding and carrying out research as with the objects of our understanding—“the world.” This means that in talking about heuristics and systematics of metaphysics, we might as well talk about the (great) philosophical systems, or, better, “near-total systems.”

Until now, a near-total system has roughly included basic or regulative ideas in ontology, methodology, epistemology, formal logic, theory of language (including semantics), theory of value (including aesthetics), and ethics. As part of certain systems, there have been argumentations against the meaningfulness or independence of ontology, or formal logic or ethics, etc. I do not think that either these argumentations of old or recent antimetaphysics warrant any special consideration. As an antimetaphysician, antiphilosopher, or adherent of pure *praxis*, one is caught up in the game as soon as one tries to justify one’s position.

Professional philosophers in the West are now studying, with perhaps greater eagerness than ever before, the general systems of Aristotle,

Epicurus, Thomas Aquinas, Descartes, Spinoza, Hobbes, Leibniz, Kant, Hegel—and of many others whose thinking can be reconstructed in the shape of a general system. Insofar as the historical systems are inspired by strong “visions,” or general attitudes toward the world, ourselves, and everything else, they are indestructible. There are no ways of probing them from the outside.

Because of the great cultural and social distances between the systematizers themselves, and between them and our time, utilization of their works must more or less take the form of free reconstructions. As they are originally formulated, these systems use too many terms and concepts from which we are alienated today. Every way of exposition, arguing, and derivation must be reconsidered in order to get maximum contact with the manifold of present-day ways of talking and doing things.

As an example of a contemporary high-level “metaphysics,” Wartofsky mentions Whitehead, but of course there are others, although they are not so well known in scientific circles. We may refer to the general views of Cassirer, Jaspers, Meyerson, Heidegger, Sartre, Kotarbiński, and others. The system builders do not always have the kind of scientific career or background needed to appease the “tough-minded,” but there is no standing obligation to appease them.

There are a large number of different ways to conceptualize the relations between a “metaphysics”—that is, a near-total systematization—*a general system*, and systematizations of scientific “results.” I shall refer to some opinions relevant to this issue that appear at least *prima facie* to be conflicting. Carefully elaborated, they perhaps need not be so.

The following unpretentious list tries to build a bridge between those who think that selected, more or less unsystematic, metaphysical ideas have been, and perhaps are even today, a potent source of scientific ideas, and those, like the present author, who believe in a great future for general systems in which philosophical ideas, genuinely and to a large extent, furnish scientific propositions with more precise cognitive meaning than they do when left to themselves.

1. General systems help scientists to *understand* science. Without metaphysics, science degenerates to mere doing, performing operations. What is done can be understood in terms of a metaphysics.

THE UNIMPRESSIVENESS OF IMPOSSIBILITIES

2. A science differs from a rational, precisely formulated general system only in scope. A science treats a part or aspect of reality in special ways (methodological requirements).
3. Science gets its theoretical ideas, its leading, regulative ideas mainly from general systems. They are elaborated in the specifically scientific way.
4. The members of a group must have some central shared beliefs as part of their similar general system—this is a prerequisite for the development of a science.
5. Metaphysical parts of general systems provide the original, irreplaceable myths that may be developed so as to yield the testable components that comprise science.¹²
6. Metaphysical views offer different interpretations of facts; they function as regulative ideas. Scientific theories are special developments of these interpretations. When a theory is “refuted,” the metaphysical view itself is abandoned among active researchers. (Agassi 1964: 191 ff.).

In what follows I take *metaphysics* to be another designation for “(near) general or total philosophical view or system.” The term *near* is inserted to avoid, within the framework of this essay, those interesting but perplexing problems that confront us if we push far in the direction of the notion of an *absolutely* all-embracing view or system. Problems of self-reference are famous examples. A system is partial or fragmentary if, but not only if, it does not in principle cover all questions relevant to each proposition of the system. An anatomical description of the brain elicits questions that are deliberately and legitimately excluded from anatomy—for example, physiological problems. The physiological description or theory excludes the mind-body problem, or at least many aspects of it. Characteristic of the great general systems is the program of answering or at least formulating *all* main or essential problems in *whatever direction they lead*, but leaving out any topic that only calls for subordinate treatment. Philosophy of logic does not include technical logic; philosophy of mind does not cover theory of rote learning.

The main points in general systems may normally be roughly condensed into a small group of nontechnical utterances, each having a characteristic ambiguity and vagueness, but also a primordial suggestiveness.

An example:

1. Nothing comes of nothing.
2. What is, is corporeal.
3. Some bodies are made out of others, but some are not. The latter are what the rest are made of.
4. The bodies that are not made out of others have no properties except bulk, form, and weight.
5. The human soul is corporeal and evenly distributed throughout the human body.
6. The human body transports perceptions to its soul.
7. Sense experience is the basis of all kinds of knowledge.
8. What is sensed in sense experience is reliable and true of reality.
9. The direct objects of sense are sense images, not the things in themselves. The images are themselves corporeal.
10. Two utterances that contradict each other cannot both be true.
11. An utterance that claims to express knowledge is only meaningful when it is about something that can be experienced.
12. Every joy is a good, every pain an evil.
13. Wisdom teaches that enduring joy can only be reached through generosity, justice, friendship, and group loyalty.
14. The unwise seek power and are capable of political domination, but the wise know how to neutralize their influence on matters essential to human happiness.

This set of “point-of-departure” sentences contains some ontology, philosophical psychology, epistemology, logic, semantics, ethics, theory of value, and political philosophy. The first ten points can be roughly attributed to Epicurus as interpreted by one of his great admirers, the German philosopher Friedrich Albert Lange (1873: bk. 1, chap. 4).

Philosophical systems are elaborations, systematizations, and precisizations of basic views suggested by key sentences and terms of the kind exemplified. One of the regulative ideas common to these systems is that of coherence, the general absence of logical contradictions and inconsistencies. To test this, systems of logic and methodology are developed as part of the total view. These subsystems show great variation when made precise. Another regulative idea is that of agreement with (the one and

only) reality—tested in various ways relative to the system’s inherent epistemology and methodology. The two regulative ideas are themselves incapable of being made precise without loss of neutrality in relation to the total manifold of systems. (The idea of such a manifold is itself incapable of being made precise without loss of neutrality!)

Implicit in my conception of a philosophical system with interpreted science as a genuine part is the principle of two-way criticism: scientific propositions, observations, laws, or theories may contribute to the weakening of a philosophical proposition and vice versa.¹³ The position of Lakatos is relevant here:

[W]e do not eliminate a metaphysical theory—as Wisdom suggests—if it clashes with a well-corroborated scientific theory. This would be a generalization of naive falsificationism. We eliminate it if it produces a degenerating shift in the long run and there is a better, rival, metaphysics to replace it. The methodology of a research-program with a “metaphysical” core does not differ from the methodology of one with a “refutable” core except for the logical level of the inconsistencies which are the driving force of the program.

(Lakatos 1968a: 180)

The main point here is the existence of common methodological maxims that make a two-way criticism practicable.

What can the experimentalist learn as experimenter from philosophy? Perhaps not much. But retrospectively one may note how ignorance of philosophy has impeded experimental research or has resulted in much useless labor. To take an example: Robert Boyle wasted his time carrying out experiments with the aim of refuting the theories of substantial forms—theories that, first, had long ago been abandoned by philosophers of his age and, second, were too vague to be refuted. When Spinoza read Boyle’s *Certain Physiological Essays*, he thought Boyle’s experiments had a worthier aim, namely to support mechanistic theories in chemistry, and criticized them on that basis. When informed by Henry Oldenburg, secretary of the Royal Society, about the real aim, Spinoza could not resist making the remark that he had not been able to persuade himself “that the very learned Mr. Boyle had set before himself in his *Treatise on Nitre* no other end than merely to show that the puerile and trivial doctrine of Substantial Forms, Qualities, etc., rests on a weak foundation.”¹⁴

By “science” I roughly mean the kind of science developed since the time of Galileo, with modern theoretical physics as the most notable

example. For arguments that this is only *one* kind, see, for example, the comparison by a learned historian, Joseph Needham (1963: 117–53), of Chinese with Western science.

Very little can be said *in general* about the two phenomena, philosophical system and science, even if we deliberately narrow the use of the term *science*. It has been suggested that philosophical systems have a greater vagueness, lack of clarity, and lack of logic. But preciseness or exactness may be very pronounced in a philosophical system. Johann Friedrich Herbart's philosophical psychology, a genuine part of his general system, is a good example. Empirical testability may be secured through long chains of mathematical derivations (a weak point in Herbart's psychology). On the other hand, *intersubjectivity* and *intercultural agreement* have never been greater than in the case of "modern" science. It is tempting to add to its list of characteristics quantitative methods and experimentation. However, even crude Baconian science proceeds by experiments of some kind, whereas the "system" of Galileo's and Newton's laws of motion, sometimes taken to be experimentally confirmed by Newton and inspired by Galileo's (doubtful!) experiments, may well be derived from the metaphysically loaded, nonexperimental physics of Rene Descartes. Remarking on the possibility of Galileo's influence, Brian Ellis says:

[I]t is much more plausible to suppose that Newton's laws of motion were derived directly from Cartesian physics, and that the only experimental evidence that was in any way directly relevant to the truth of Newton's laws was the evidence upon which Descartes and Huyghens supported their law of conservation of momentum. (Ellis 1965: 30)

Philosophy and science are interlocked in such a way that they can only be separated by making a number of more or less arbitrary distinctions.

A radical pluralism of approaches within a research community presupposes an adherence to the "live and let live" maxim that today perhaps is rather rare. Paul Feyerabend (1970a: 107) quotes Robert Merton, who tells us that the "organization of science operates as a system of institutionalized vigilance . . ." and adds:

In a warlike community of this kind proliferation will certainly lead to tension and nastiness (and there exists a good deal of nastiness in science, as well as in other critically rationalistic enterprises) but there is no need to combine proliferation with a war of all against all. All that is needed is less moralism, *less seriousness*, less concern for the truth, a vastly deflated "professional conscience," a more playful attitude. . . .

We might add that the concern for truth is essential, but the belief that it can be tested easily, and that when faced with two different approaches one of them must be nearer to the truth, is pernicious.

The use of the notion of a near-total philosophical system tends toward conceptual disengagement in the wars between schools and approaches. One acknowledges that *if* the differences are as deep as one could wish, clear-cut disagreements, such as we have when discussing facts, are not obtainable. Let the radically different approach live!

As it is not our task here to discuss all aspects of the complicated relations between metaphysical philosophy and science, I shall simply conclude by maintaining (1) that a theoretical idea that is part of a definite scientific theory may also be an idea within a philosophy, (2) that such an idea may well be worked out and made more precise and specific in *both* a professional philosophical system *and* a particular science, but (3) that the guidelines for the scientific exploitation of the idea are marked by stress on intersubjective (cooperational rather than operational)¹⁵ preciseness and testability.

Intrinsic Value of Research and Science

In the philosophy of science of Popper, Lakatos (1970: 162), and others, the progress and growth rate of sophisticated theory-centered science are highly valued. Sometimes it seems that only the achievements of the giants (Galileo, Newton, Einstein . . .) really count.

In contrast to this I shall stress the intrinsic value of research in general—not only scientific theory construction—among a growing number of the population, both those who directly participate in the professional life and also amateurs. The majority of researchers, the not very brilliant nor outrageously narrow-minded, determine the rate of growth. But in spite of some waste on research projects that no one enjoys, the overall picture is one of the intense satisfaction of a deep human urge: that of understanding and of a many-sided expansion and deepening of understanding. The growth rate is of secondary importance, especially considering the anarchic condition of politics: many of the results are still misdirected or used without responsibility and awareness of consequences. There is also, in the societies that stress competitive technical achievements, an overestimation of mere cleverness, brilliance, and intellectual prominence. This

severely limits the value of scientific activity. Lakatos divides research programs into progressive and degenerating, but some of his progressive ones are degenerating in the sense of having other-directed, status-seeking participants or of having acquired the character of a mere game. The above remarks exemplify valuations that are part of a philosophical system in which science is subjected to systematic valuation. It is clear that research policy is ultimately dependent (in part) on the larger system, which enables all human activity and all kinds of reasoning to be compared by considering a range of values, intrinsic and extrinsic.

By a research program, I mean a plan of how to use one's time as a researcher in the near future or over a longer period of time. Paradigms of such programs may be obtained from memos outlining the decisions of a group of collaborating scientists. They mostly contain speculations about what will be found at various stages of the research process and about how to react if "nothing" is found before certain dates. They contain strategic and tactical paragraphs, advice, rules, hypotheses, and hypothetical imperatives.

In spite of some excellent features in Lakatos's notion (or notions) of a research program, I think it wise to adhere to the above, more pedestrian idea of a program.

V

The New Historiography Applied to Itself: General Possibilism

The Discontinuity of Traditions and the Resulting Nonaccumulative Character of Scientific Knowledge

In view of its exceptional suggestiveness, let us start with the work of T. S. Kuhn. Roughly speaking, Kuhn suggests that a mature science develops normally within a tradition through acceptance of a certain way of “doing science.” The activity is, only in part, characterized by acceptance of a definite set of explicit theories, assumptions, and postulates as true and correct. Implicitly held views, presuppositions (à la Collingwood) contribute essentially to the tradition. Only a revolution, incited by persistent anomalies, makes the scientific community relinquish its loyalty to its tradition and take up a new way of “doing science.”

The results of a tradition N tend to be described within the new tradition $N + 1$ as mistakes eventually eliminated, or as lower approximations to truths established within the new tradition. In reality, however, there is, according to Kuhn, discontinuity between the old and the new way of doing science, which makes it impossible to do justice to the old within the framework of the new. And without a definite conceptual and practical framework, no scientific formulations intended to express *results* can be adequately understood. (The latter is implicitly assumed by Kuhn, and I shall also accept it with certain reservations.)

When scientists work consistently *within* a tradition, none of their experiments, observations, discoveries, or inventions can overthrow the dominant theory because these are framed and expressed in terms of that theory and presuppose specific implicit assumptions and a nonverbalized practice. But when persistent anomalies occur, some gifted scientists may try out entirely new ways of looking at things, and if they are compelling and successful, a new tradition will be inaugurated.

Because of the theoretical and practical disconnectedness of the old and new, there is *no genuine accumulation* of knowledge through the revolutions. There are reinterpretations of the old, certainly, so that there is a development, a progress as in philosophy or in the arts, but no simple broadening and deepening of knowledge or increase in approximations to a supertraditional and transtraditional truth. There is therefore no science *sub specie aeternitatis*.

Now even if we accept this view of the traditions and its resultant nonaccumulation thesis as true, there is nevertheless something that ought to be added.

From the point of view of general historical research, there has been, in the last thousand years, one important kind of accumulation: that of available documents and artifacts, manuscripts (observational journals, descriptions of apparatus), prints, machinery, collections of pictures.... More and more artifacts demand explanation. There may also be an accumulation, at least a very prolonged acceptance, of certain kinds of formulae, such as $F = ma$ and $S = \frac{1}{2}gt^2$. A historian will stress those materials that are retained in spite of variation of use, function, or meaning. This "accumulation," however, is noncognitive. The interpretations, meanings, and functions are not stored. Accumulation in a cognitive sense presumes persistence of function or meaning, and not only of tokens, signs, and behavior fragments. It is *cognitive* accumulation that the history of science does *not* show, according to Kuhn.

Let us then ascend to a metalevel and ask whether there is discontinuity of traditions in the history of historiography.

The Idea of Nonaccumulative Historiography Applied to Itself

In the Middle Ages, history was pictured so as to fit into a synthesis of theological speculation about God's interaction with natural events, and its methods were based largely on the doctrine of revelation and special authority. With Descartes new trends developed that changed the conception of history: on the one hand, conceptions within the frame of total systems, such as that of Spinoza, and on the other, methodological and epistemological positions in fierce reaction to dominant theological postulates. Thus *historical scepticism* introduced arguments against the decid-

ability of *any* proposition about the past. The age of enlightenment introduced a light-hearted belief in “rationality,” and convictions of a one-dimensional progress, both of which highly influenced the history of science. The concept of superstition was used to combat any position in conflict with dominant theories and hypotheses. But then this image was rudely shaken when the romantic trend set up new value priorities, cultivating the not-yet-clear, the endlessness of the main human projects, the place of irrationality within the seemingly most rational undertaking. The organic view, so dominant in many environments, stressed the broad historical setting of any enterprise, including, therefore, the scientific, and thus undermining the idea of linear progress. Then came the rising storm against the excesses of romanticism—the new era of the fight against speculation, with the victory of vast pseudohistories like that of Auguste Comte, based on a model of progress borrowed from the age of enlightenment, the reinstatement of the priority of certainty and of finite projects, and the cult of scientific knowledge as certain, stable, and applicable to any field, including history.

As to the outlook for general studies of historiography—the “meta-science” of the writing of historical development—the richness of mutually incompatible historical accounts (or “theories” in a broad sense) of one and the same event, doctrine, or epoch is best seen from a study of particular cases. Examples include the well-known vagaries and fluctuations in conceptions of Platonism¹; the mutually incompatible conceptions of the historical Jesus (admirably outlined by Albert Schweitzer [1913]); and more pertinently, of course, the fluctuations in conceptions of Aristotle’s physics. A new trend, very different from that of the first half of this century is gaining ground.² It was just as poorly foreseen as major changes in the conception of chemical elements or their numbers. To the great diversity of purely descriptive accounts of the past, we must add the diversity of philosophies of history—the Marxist, idealist, Hegelian, etc., conceptions of what history “is all about.”³ Today philosophy of history includes the hotly controversial methodology and epistemology of history.

These remarks are meant only to furnish a reminder of the problematic character of “appeals to history” in debates that touch the metastudy of historiography. “The history of science shows that . . .,” might well be replaced by the expression “There is at least one coherent conception of history of science such that it shows that. . . .”

Before Ernst Mach's inspired accounts of mechanics and optics, historiography of science received little attention from those who knew scientific research from the inside. It is not too difficult, however, to extrapolate backwards and construct images of science that are in harmony with earlier general historiographical trends. This offers a much-needed perspective for assessing current trends. An uncritical reading of the new, contemporary historiographers' exposition and criticism of the old dominant trend gives one, more or less inevitably, the impression that the new trend is the more correct. But appreciation of this very inevitability should in turn activate a desire to examine critically the sources of persuasion. These are then found to rest, in part, in the assumptions of the new, not of the old trend. *The exposition and criticism of the old is an essential part of the new.* The critical evaluation is thus, to put the weakest construction on it, not something constructed altogether independently of the new image. Let us apply this to the pretensions of the *new* historiography of science.

It seems that one is asked to accept it as *the* correct or adequate image. In my own case, I shall say that I can and shall accept it as based on at least one set of tenable assumptions, hypotheses, and observations. I accept it as an "image" that fits well into an outlook on history in general, and which is particularly well suited to certain contemporary research interests. Significant contributions to our understanding of the dependence of methodological frameworks on (research) interests are contained in the work of Jürgen Habermas (1967, 1968abc). Applied to itself, Habermas's theory of dependence announces its own limitation, its own dependence. This fits our possibilistic outlook.

More specifically one may ask: What kind or kinds of correctness or validity does one have in mind when deciding that a new image of scientific development is more correct or valid than a prior one? Considering the very indirect and complicated way in which the image, when expressed as a series of propositions, connects us with observations and artifacts of history, I propose that the kinds of correctness will have much in common with correctness of hypothetico-deductive theories. That is, observational propositions are, at best, *implied* by the theoretical proposition, given a set of auxiliary assumptions and postulates. On the other hand, nothing comparable to implication holds the other way—from observation to theory. An important consequence of this view is the plu-

ralist conception of images: there will be, in principle, an indefinite number of equally good images that fit the observations. But this anticipates a theme to be taken up later.

In what follows I shall attempt to show how Kuhn's doctrine of traditions, paradigms, or fundamental theories—a justly admired contribution to the new historiography—contains a fair portion of potential self-destructiveness if it is conceived as a doctrine intended to cover traditions, paradigms, fundamental views, and ideas outside the fields of natural science—for example, historiography itself. It should be noted, however, that such a conception of Kuhn's contribution is not the only possible one. We may, for example, take his utterances to be an invitation to adopt a certain kind of research program in metastudies of science—a different kind, for example, from that of Popper. But one need not, in all contexts, interpret his sentences in the same way.

Kuhn himself does not express any doctrine covering all traditions. Any argument against generality, however, is likely to provide only a thin wall, which is easily shattered by the pressure of parallel questions concerning the development of social science and history. For the kind of evidence that speaks against the doctrine of linear accumulation in natural science abounds in the humanities; the main difference being that dominance of one view or approach in the latter is more often restricted to particular countries or seats of learning. But these geographical limitations are not, of course, the essential point, which has to do with the effects of the dominance revealed in the history of historiography. A partial generalization from natural science to natural *and* social science is made by R. W. Friedrichs (1970).

Let us inspect Kuhn's crucial opening passage:

History, if viewed as a repository for more than anecdote or chronology, could produce a decisive transformation in the image of science by which we are now possessed. That image has previously been drawn, even by scientists themselves, mainly from the study of finished scientific achievements as these are recorded in the classics and, more recently, in the textbooks from which each new scientific generation learns to practice its trade. Inevitably, however, the aim of such books is persuasive and pedagogic; a concept of science drawn from them is no more likely to fit the enterprise that produced them than an image of a national culture drawn from a tourist brochure or a language text. This essay attempts to show that we have been misled by them

THE NEW HISTORIOGRAPHY APPLIED TO ITSELF

in fundamental ways. Its aim is a sketch of the quite different concept of science that can emerge from the historical record of the research activity itself.
(Kuhn 1962: 2)

According to this, a certain image of science has been dominant in the recent past; we can refer to it as number N in the general chronology of images. In our day a quite different conception, one may perhaps even say a new *concept*, is being created, a new image of science and of its methodology, and not through a piecemeal evolutionary process, but by a revolution, the historiographical revolution. Image number $N + 1$ is now, or soon will be, the dominant one.

What is the cognitive status of these hypotheses?

The process referred to seems very similar to what Kuhn, later in his book, calls a transition from paradigm N to a succeeding paradigm, $N + 1$, by a scientific revolution; except that this time the revolution is not in natural science but in the humanities, the *Geisteswissenschaften*. Such a transition affects all aspects of scientific activity, according to Kuhn, and it seems, therefore, that *the transition to the new historiography affects all aspects of precisely this new historiography*: the choice or selection of sources (corresponding to choice and selection of favored observational and experimental fields in mature sciences); the interpretation and conceptualization of the historical data (sources, documents); the hypotheses and theories (for example, about function of theories, chronological determination of discoveries, puzzle-solving character of normal science, function of anomalies, etc.); and the methodology (use of general historical methodology, study of the scientific community, research on “the research activity itself” rather than on their achievements in the form of theories).

But the persistence in time of historiographic reform or revolution disqualifies the new doctrine as more than image $N + 1$, the “textbook history of science” being image N . This disqualification seems to follow from the very conception of the “new historiography,” the conception centering on concepts of pervasive research traditions and cognitive discontinuity.

In spite of the role of the new historiography as a new paradigm of historical and systematic research centering on science (“science of science”), it is not explicitly conceived as such by its representatives. Their own perspective, which stresses the broad historical relativity of the narrow absolutistic pronouncements of paradigm makers and their followers, is not

applied reflexively to the pronouncements of the representatives and advocates of the new historiography. But this *lack of self-reference* is just what the new historiography would say we should expect from those who share a paradigm. The historiographer cannot at the same time be both inside and outside.

Kuhn expresses the optimistic belief that the doctrines of the new historiography can “emerge from the historical record of the research activity itself.” But this formulation belongs to a kind that, elsewhere in his book, he takes to reveal the unhistorical character of the *old* image of science. Characteristic of the old way of talking was just this tendency to pretend that scientific theories somehow emerge from the facts, the observations, and “the artifacts and materials”—to use an expression employed in the humanities. The pretension conflicts with the Mach-Duhem-Poincaré theorem.

The sources of the history of science are now richer, but there were also excellent sources before our generation. It cannot be said, therefore, that we are the first to have sources to inspect and that previous generations could never have hoped to talk about what emerges from the historical record of the research activity *itself*.

Our conclusion, then, is that the way in which Kuhn assesses the old and the new historiography fits in well with the image he draws of how scientists in a new tradition assess the relation between the old tradition and their own. He is caught in his own relativism. So far as I can see, the new historiography cannot, on Kuhn’s premises, properly claim any special status in relation to other historiographies. Therefore the outsider—for example, the metahistorian—who is interested in *the history of conceptions of history* is justified on Kuhn’s premises in taking his picture as only one of the many that have been offered since Aristotle.

The doctrines of the new historiography as conceived by Kuhn are extremely general and pointed. Thus, normal science is “a strenuous and devoted attempt to force nature into the conceptual boxes supplied by professional education” (Kuhn 1962: 5). What interests the metahistoriographer in this context is the relation of such a doctrine to the view that the social sciences—presumably including sociology, methodology, and history of science—have not yet reached the stage of maturity at which scientific activity may exhibit dominating theories shared by the community of scientists. The description by the new historiographers of the old, however, presents the old in just this way: as a general way of doing

(history of) science, with dominating views common in the community. But even if this picture of the old historiography is not accepted, we may foresee that historiography, by becoming more mature, will eventually reach the required stage. Once "firm research consensus" has been reached, historiographers of science would, according to the Kuhnian conception, make a strenuous and devoted attempt to "force nature" (in this case, historical reality and the development of the sciences) into the conceptual boxes supplied by professional education.

It is not at all a question here of whether the new historiography constitutes progress of some sort or not (I feel sure that it does), but of whether it would not be wise for someone who is not himself a professional historian to expect *many* (an indefinite *Mannigfaltigkeit* of) equally persuasive historiographical movements, trends, theories, and methodologies, and to take each as essentially a hopeful project, a program for research and understanding. Working on such a program tends to elicit more or less definite images of the future. The expectations for the future development of theorizing, whether monistic or pluralistic, seem to follow the general regularities of images of the future. In the words of one of the pioneers in "futurology," Frederik Polak:

Man's conscious striving to foreknow the future plus his partly unconscious dreams, yearnings, urges, hopes and aspirations for that future, periodically and successively, are condensed, crystallized and clarified into different sets of more or less specific, outlined and projective expectations or ideational goals. Such a set, at its end-stage of collective and positive, prospective and constructive development, may be called—introducing a new category of thought for social science—an *image of the future*. (Polak 1961: 16)

The striving of scientists, including historiographers, belongs to the most intense and well articulated; their image of the future plays a conspicuous role within their total view. Perhaps the image of theories merging into supertheories and of the succession of theories as a series of ever-closer approximations to one single theory, is expressive more of yearnings, urges, and hopes than of any realistic string of reasoning. An opposite image, however, might perhaps just as well be taken as an expression of the yearnings, urges, and hopes of sociologists of knowledge and historians who stress the irrational or discontinuous aspects of scientific

development. As far as I can judge, present methodological trends do not reject the possibility of working with hypotheses drawn from incompatible images of the future.

The new historiography of science has this profound character in common with Hegelianism, it surveys global epochs in which the actors, to some extent, must act like marionettes, not knowing their real historical function.⁴ Each epoch creates its own conception (image) of human history and interprets science within it.

By this view, however, actors from a given epoch cannot imagine that there have been, and will be in the future, other epochs of similar global character. This insight is hidden because of the discontinuous nature of the development of the human cultural enterprise (the variation of spirit), or *Zeitgeist*, from one epoch to the next.

Only the new historiographers of science can see through the epochs and tell us about their global character and the real function of certain kinds of activities—for example, “puzzle solving” (Kuhn), the character of which scientists themselves do not see through. They transcend their own historical situation, revealing what is hidden to others.

Those who, like myself, are not caught up in the act, but are simple, modest bystanders, may perhaps appreciate some of the accomplishments of the newest philosophy of scientific history, and at the same time vaguely conceive its nonglobal character, just as we are able to in the case of contemporary “mature” scientific theories. The bystander who has chanced to read drastically different general historiographical doctrines would seem well able to conceive the “unhistorical” character (in Hegel’s sense?) of the new historiography of science. But if the capacity to look at a string of historiographies from the outside should seem beyond him, who is left capable of discussing the issue at all?

In short, the application of the new historiography, to itself *hebt sie auf*, (with its stress on tradition and nonaccumulation), suspends it. But suspension (*aufhebung*) is not identical with refutation, and it is not necessarily an argument for abandoning a research program.

There is, incidentally, a touch of the Wittgensteinian approach in the work of Kuhn, and the arguments formulated by Gellner (1968: 377 ff.) in his rejection of the Wittgensteinian social science envisaged by Peter Winch also seem relevant to Kuhn’s position.

Winch acknowledges scientific activity to be a social activity. Concepts like “theory,” “refutation,” and “proof” have all developed in a social context; *therefore*, concepts used in that activity are social concepts. Let us inspect Gellner’s critical review of the consequences Winch draws. For our own purposes, substituting “refuted” and “refutation” for “married” and “marriage,” and “verbalizations in his scientific community” for “movements in church or registry office”:

[A]n event acquires meaning through the fact that it is conceptualized by the agent with the help of shared concepts—and for Winch all concepts are necessarily shared—and that the conceptualization is essential to the very recognition of the event. Example: a man “gets married” not merely by going through certain motions in church or registry office, but by possessing the concept of what it is to be married. If the concept were lacking, the same physical movements, in the same places, simply could not be classified as “marriage.” (1968: 384)

After substitutions and some other pertinent changes are made, we get:

Example: a man “gets refuted” not merely by motions of the hands and mouths of critics, but by possessing the concept of what it is to get refuted. If the concept of refutation were lacking, the same physical movements, in the same places, simply could not be classified as “refutation.”

From the point of view of Winch, then, to say today that Priestley was not really refuted by Lavoisier, in spite of his having been said to be refuted at his time, is nonsensical; within his scientific community, within the tradition, he *was* refuted. The meaning of “refuted” is to be found exclusively in the social relations between the users of the word. There is no external viewpoint, no independent standard. “What has to be accepted, the given, is—as one could say—forms of life” (Wittgenstein). Within the form of life of the scientific community of the time of Priestley and Lavoisier, Priestley *was* refuted. Getting married and getting refuted are only possible when we have the concepts, and the concepts form part of a definite form of (social) life. If and only if we take part in that social life do the concepts become meaningful, namely as vehicles in our specific social interactions. Therefore, in a different community, with different customs and practices, the concepts cannot be the same, and so incomparability and untranslatability result. No criticism is possible that transcends ways of community life.

What we say today using *our* concepts of refutation is utterly irrelevant when trying to *understand* what happened between Priestley and Lavoisier.

In the same vein Winch maintains that if a formulation does not express a hypothesis, but rather a true revelation within a community, it can never come to be anything else than a true revelation. “Oracular revelations (among the Azande) are not treated as hypotheses and, since their sense derives from the way they are treated in their context, they therefore *are not* hypotheses” (Winch 1964). Oracular revelations *are* oracular revelations. In a scientific community people do not take them seriously because it is a different kind of *community*, not because people see things more realistically in an absolute sense.

According to this social context- or tradition-absolutism, the methodological system of a community cannot meaningfully be criticized from outside. It can develop from within, but the frame is fixed.

Historiological Pluralism

The consequence of this Wittgenstein-inspired view is that insofar as there are historiographies, they are, as social interactions, part of a social system, a form of life, and are *specific* to this form of life. A historiographer may register the historical development of scientific activity (as understood within the system), but only within the boundaries of his system—that is, within a conceptual framework to which he and his results are bound.

This way of thinking leads to a *historiological pluralism*: There are as many historiologies as there are specific communities. And insofar as there is scientific activity, there are historiographies of science. As there are no external, no transsocietal standards of truth or correctness, all historiographies are equally valid. Criticism can only be immanent, not transcendental. Considering the absence of any meaningful comparison according to truth, correctness, plausibility or likelihood, confirmation, or any other graded predicate of cognitive import, they may be considered equally *possible*, using the term as in the Aristotelian tradition of *dynamis* and *potentia*. How many will ever be realized within finite time depends on the development and interdependence of societies on this and other planets. On our planet a definite kind, or family of kinds, is rapidly spreading over “the

industrial-technological-urban society." We may therefore expect a gradual narrowing down to one single unified historiography of science. But is this way of thinking clear, and is it consistent?

Such a philosophy inspired by the "form of life" holism *and* pluralism of Wittgenstein is only convincing as long as one does not admit that extremely different forms of life are already being compared by cultural anthropology and other social sciences, *and* that these studies at the same time are part of a Western kind or kinds of way of life. Historiography is part of a culture, and comparison of historiographies is part of cultural anthropology. Therefore, if we admit the existence of comparability in that general field, we should admit it in historiography of science. And if comparability in general is possible, why not comparability in terms of truth?

There are, however, other reasons for expecting and welcoming pluralism, and perhaps also possibilism. Let us consider some problems of observation.

The last hundred years have witnessed an increased flow of experimental results suggesting inescapable fluctuations in even the most elementary kinds of observation. Some are fairly constant, defining a "personal equation"; others are erratic and difficult to trace. Therefore not even on the most elementary level is there any basis for such utterances as "I saw what really happened," except as part of the language games of everyday life—that is, where the expression can be used irresponsibly enough for it not to seem very odd that one admits the next day that one was wrong.

In chapter 2 (page 23), we stressed that what is identified as the phenomenon observed depends on our metatheory of the process of observation. In the field of historiography, the problem of identifying the phenomena observed is still more conspicuous than in the natural sciences. If several different metaobservational theories are applied in historiography, a still greater diversity of images is expected to emerge.

The statements overriding my observation-statement may be of any kind. There is no commonsense empiricism such that observations are taken as a fundamental source of insight or truth. (Some experiments on nonphilosophers' empiricism are reported in Naess 1937–38a: 382 ff.). Any "empiricism" worth working with today takes broad experience, not narrow observation, as its key term.

It is an old maxim in the methodology of history that if there is only one eyewitness to an event, one may expect historical accounts to be categorical, whereas if there have been two or more, all documented, there will be an admission of uncertainty as to what really happened. The reason, of course, is simply that the records of two eyewitnesses tend to differ to an astonishing degree, whereas, that of one cannot. As everyone knows, the experimental psychology of witnessing has shown the vast degree to which a conception of what happens is determined by the expectations, orientations, dispositions, and emotional states of the observer.

It has also long been clear that in experimenting with higher organisms, the experimenter influences the behavior of the subjects—for example, by making them “verify” his prejudices.⁵ Ivan Pavlov explained in 1929 that on checking certain “experiments it was found that the apparent improvement in the ability to learn, on the part of successive generations of mice, was really due to an improvement in the ability to teach, on the part of the experimenter” (Gruenberg 1929: 327).

And experimental group psychology has shown how group membership and relations of authority, dependence, and so forth, introduce astonishing conformity into observations. Even the mere fact that there is a majority reporting something can have a profound influence on how things are perceived and conceived (cf. Asch 1965).

Therefore, among researchers alert to these findings, a narrator who solemnly appeals to an event “itself,” or to what “really” happened, is looked on with suspicion. A historian’s claim to be telling us what *really* happened in the French Revolution or what Hitler *really* did, will probably be interpreted by his colleagues as an effort at crude persuasion, or as irony. The more or less *irreducible multiplicity of versions* and their finite lifetime are taken for granted by historians.

But just as in persuasive political historical accounts, we find in texts in philosophy of science expressions intended to make us believe both that a definite version of what happens in a laboratory is the only correct one, and that the narrator has seen all that is worth seeing.

Claims about what “*really* happens” in a laboratory or what scientists “*really* do,” however, are made by narrators who feel the need for an undisputable observational basis for methodological doctrine and any other doctrine that is relevant to the philosophy of science.

"Let us inspect what the scientist *actually does*," "let us inspect *actual scientific practice*," how measurement "*has actually functioned*," "let us ignore what he *says* and *see what he does*"—such phrases are very common, not only in texts by P. W. Bridgman, but even in the writings of some of the new historiographers. I take it as an indication that they engage in rhetoric or have not applied their own basic views about scientific development to their own historiography.⁶

But if reporting on a *praxis* is reporting on *actions*, and not only on fragments of behavior, and group adherence is also involved, only a very simple faith can make one try to reduce the number of versions to one.⁷

The Mach-Duhem-Poincaré principle, if applied to reports of actions, leads to a doctrine of indefinite multiplicity of theories, all of which are equally well suited to cover the reports. That is, there is no inductive method that would make theories and hypotheses about scientific activity, viewed as sets of actions, into valid inductive inferences from eyewitness reports of behavior. There is no logical compulsion; as in physics, implications go *from* theories, hypotheses, auxiliary postulates, assumptions, sciences, and initial conditions *toward* observational reports—not the other way. In this realm of action, too, by implication, we may say with Lakatos: "Truth does not flow upwards."

Or is all this wrong? Is there, after all, a basic difference between the natural and the social sciences, the latter being subjected to the methodology of hermeneutics, philosophical anthropology, *Geisteswissenschaft*?

The Mach-Duhem-Poincaré thesis holds for the relation between, on the one hand, observation of actions (doings, not mere behavior-fragments) and, on the other, theories covering the actions—except that there are special methodological rules, corresponding to different doctrines of action, to be obeyed in such observation. We cannot directly "see" what another person does, even if this seems fairly obvious among good friends in favorable circumstances. A change in circumstances (due to war, business, divorce, illness . . .) can make behavior ambiguous and lead to a reevaluation of past behavior. And that involves reclassification ("I always thought he was doing such and such, but he wasn't").

Then again, several "doings" may be related in such a way that one is part of the other—we (1) buy a newspaper and (2) look for the arrival of a violinist as part of (3) the entertainment of a guest. If the doings are complicated, as they are in the case of scientists in laboratories, one cannot

trust the actor to give an adequate account—if he thinks you wish to help, he says one thing; if he thinks you are a nuisance, another; and if both, a third. And his account will, in any case, reflect his special intentions at the moment more than his basic conceptual frameworks. So unless you share them, you have to be careful; the two of you see quite different things. The plurality of conceptions, even among presumably equally competent scientists, is quite astonishing.

Accordingly, there is no basis at all for the assumption that we can single out one unique description of use as the correct one. One may wholeheartedly accept that reality is one without accepting that there is only one correct description of it. “Do not listen to what they say; see what they do!” is sheer infantilism if interpreted as a proposed guarantee of access to some *definite* way in which terms and sentences are “actually” used. Of course, fragments of verbal as well as nonverbal behavior are relevant, and what a scientist “does” includes his utterances. But a person who is observing the scientist’s actions is not in a better position to describe those actions than is the scientist himself. And there is certainly not just one description that he can give. There is no end to the different characterizations, some mutually consistent, others inconsistent, that a researcher on doings can offer in responsible social research.

If two witnesses of what is done in a definite laboratory on a definite day differ widely in their descriptions, we may analyze the differences and find them to depend, at least in part, on complicated sets of expectations, evaluations, and assumptions about the wider goals and aims of the activity on that particular day in that particular laboratory, but also on what is here called their metaobservational theory—be it conscious or not. Articulated in the form of assumptions, propositions, and (postulated) rules, the background of the two descriptions might be formed as two systems. Taking “if p , not r , is assumed or postulated, then q ” as consistent with “if r , not p , is assumed or postulated, then non- q ,” the two descriptions $[(p \ \& \ \bar{r}) \supset q \text{ and } (r \ \& \ \bar{p}) \supset \bar{q}]$ may be consistent even if their propositions (q and \bar{q}) are mutually inconsistent. And they would *both* add to our information about what was done in that laboratory on that day. Thus, the pluralist view is, heuristically, a relationalism, not a relativism; that is, each description is conceived in its relation to a system and is assessed immanently in *that* relation. The following are some conclusions:

1. Arguments today *against* the applicability of the new historiography theses (based on discontinuous, all-embracing traditions, and nonaccumulation of scientific knowledge) to the new historiography itself do not decisively outweigh the arguments *for*.
2. Applied to itself, the new historiography is just *one* way of doing history, a tradition No. $N+1$, and when articulated and made scientific, or pseudo-scientific, expresses *one set* (or one class of sets) of fundamental postulates, assumptions, definitions, and rules (recommendations, prohibitions, etc.). As in the case of physical theorizing, rules, conventions, and empirical elements are intimately interwoven, supporting neither extreme conventionalism nor naive empiricism.
3. To the outsider tentatively working out other sets, just for the sake of a survey of coherent structures, the new historiography appears as a "systematizable" possibility—a structure that is neither probable nor improbable, neither correct nor incorrect, but nevertheless *tenable, workable, and valid*—that is, valid as a fundamental systematizable possibility as part of a philosophical system.
4. Without himself in any way renouncing research, at least in the form of explicating possibilities of the most comprehensive kind, the interested outsider is grateful to those who work out a new way of doing history of science, and grateful for both the large visions and minute details offered by the participants.
5. The sets of fundamental postulates and assumptions implicitly adopted by historians of science working within a tradition are not specific to their discipline, but part of more general ways of doing research and asking questions. They may be conceived as expressive of general views, "metaphysics," or philosophical systems.
6. If one (with Kuhn) accepts, as part of one systematizable possibility, the thesis that research within a tradition only "gets going" when a community of scientists who share fundamental assumptions is formed, and also accepts the validity of all fundamental sets, then scientific results and achievements, as *understood* results and achievements (and not only as filed printed matter, tapes, and photos), must be accorded a multiplicity of interpretations of the second-order variety. The first-order variety stems from the one-many relation between observation and theory, the second-order

from the one-many relation between observation of scientific activity and historiographical metatheory.

But this leads to a final topic.

General Possibilism

A superhuman scholar, able to interrelate all dominant scientific theories at a given time, might be said to obtain a “scientific worldview.” Such an expression, however, is misleading in at least two ways.

First, by “scientific” we could refer only to what scientists, without opposition from colleagues, happen to assert and publish at a given moment. But then “scientific” would be taken largely as a sociological, not an epistemological or a methodological, concept. Dominance to the point of lack of opposition is seldom acquired, and, if acquired, it tends not to last long. Any synthesis would therefore be largely arbitrary from an epistemological point of view, and its formulation would tend to be out of date before its date of publication.

Second, an integration of the professional texts is dependent on ontologies that are not results of research but derived from everyday life or philosophy. The expectation of a definite scientific worldview (*wissenschaftliche Weltanschauung*), or successive approximation to such, is based on crude misconceptions of the scientific enterprise.⁸ Science has no autonomy in relation either to philosophy or to conceptions of everyday life.

What surveyors of research can offer as a partial substitute for comprehensive worldviews is, rather, a kind of catalogue of skeleton encyclopedias.⁹ Each might cover the whole world or “all there is,” and each may be internally consistent, but they would nevertheless be mutually inconsistent, or strictly speaking (see p. 130) incomparable because of mutual untranslatability. This possibility is the offering of carefully articulated individual *systems*.

A researcher eager to contribute to a department of science may not need such a picture in his research. He may be interested only in a tiny part of one of the pictures, or he may even find it heuristically necessary to work with an inconsistent combination of two. Or he may even neglect the philosophical distinctions required to arrive at a definite picture. The definiteness of his intentions may remain subphilosophical.

Few quantum physicists offer the philosophical public a fair chance to make a choice of how to integrate physics in their philosophy. One of the few is Bernard d'Espagnat (1965), who offers three philosophical interpretations: "... at the moment there is a true freedom as to choice face to face with fundamental problems."

Proliferation and pluralism of theoretical ideas and programs are now positively valued by Popper, Lakatos, and Feyerabend for methodological reasons, but only in physics and adjacent fields. When it comes to philosophy—I think now of attempts by great systematizers like Aristotle, Thomas, Descartes, Spinoza, Kant, Hegel, Marx, and Whitehead—it seems that a corresponding proliferation and pluralism are negatively valued. But on what grounds does one envisage growth through nonconformism in physics, but not in philosophy?

Creative physicists are adopting, and presumably will continue to adopt, mutually inconsistent views, all of which are sources of inspiration to researchers whose fields are broader, covering the relations of physics to society or to wide areas of scientific and philosophical systemization. To try to shut off the pluralist sources of inspiration is not only a methodological but a general cultural evil.

To take an example: The fight between proponents of conceptions labeled "idealist," "instrumentalist," or "realist" is largely barren unless the explicitness, comprehensiveness, and consistency of each *kind* of (allegedly) incompatible conception are worked out with the utmost care. Research promoting this sort of analysis, should, at the moment, be higher priority than attempts to show that only one of the vaguely outlined conceptions is correct.

What holds for physics holds for all other sciences today. Fundamental questions are given more or less vague and ambiguous answers. These questions provide centers of confused, partisan debate that have the primary aim of showing that one particular view is the right one. The more precisely and the more comprehensively the views are elaborated, the less chance there is of monism; a plurality of systems are created that stand out as important, workable *possibilities*. Increases in preciseness and explicitness inevitably involve thinking along the lines of a total philosophical system.

The dissimilarity of methods, pretensions, focus of interest, logical instruments, and other features closes, at least temporarily, the road back to sloppy monism.

Whatever the value, or lack of value, of a variety of scientific world pictures for the researcher in his daily work, there can be no question, to my mind, of the cultural value of such systematizations. The history of philosophy teaches us about the gigantic general systems created by outstanding personalities, each supported and elaborated in relation to a tradition or set of traditions (in the case of Spinoza, for example, medieval Jewish, Renaissance Italian, and rationalistic French traditions). No one can tell to what extent there will be original creations of this kind in the future. But with the pervasive role of scientific research in the years to come, there will at least be the more modest task of worldview typologists and systematizers—coordination and mutual elucidation of the materials derived from science and philosophy.

The relief from pressure toward conformity seems to me to offer great political advantages. Possibilism tends to diminish the conforming effect of science on society and on the individual. It increases the personal freedom in choice of philosophical principles by furnishing precise and elaborate alternatives.

When science was still frowned upon by political rulers, it was important for the researcher to fight for his position and even for his life, but now things have changed: rulers largely depend on scientists and must keep in favor with them. “Scientific” is a label that carries immense prestige in Western as well as some Eastern countries. The prestige is used by powerful “vested” interests to narrow the range of what are considered tenable views. This pressure is rarely counteracted by eminent scientists, who tend either to be retiring and uninfluential socially, or to be absorbed in particular approaches that make them unwitting supporters of crude dogmatism. Thus, today it is not by its own theoretical inclination, but through pressures on the scientific enterprise as a whole, that science is largely, but of course not consistently, moving in the direction of a *unity of outlook*, a “scientifically” sanctioned conformism.

The political consequences of such a “scientifically” sanctioned conformism have been a steadily recurring theme in the so-called Frankfurt School of sociology and philosophy, represented by authors such as Max Horkheimer, Theodor Adorno, Herbert Marcuse, and Jürgen Habermas. Compare the following from Horkheimer and Adorno’s *Dialektik der Aufklärung* (1969: 4):

THE NEW HISTORIOGRAPHY APPLIED TO ITSELF

Die Angst des rechten Sohns moderner Zivilization, von den Tatsachen abzugehen, die doch bei der Wahrnehmung schon durch die herrschenden Usancen in Wissenschaft, Geschäft und Politik klischemässig zugerichtet sind, ist unmittelbar dieselbe wie die Angst vor der gesellschaftlichen Abweichung.

In this situation it is imperative to stress the freedom of choice that remains despite the overwhelming mass of highly reliable detailed “knowledge” added every year through research and crudely communicated to the public as “authoritative.” But without a foundation in radical pluralism, any stress on choice tends to be insincere. Those who, for lack of philosophical education, see a lot of “hard facts” in textbooks, and mistake increase of area of agreement for increase in truth content, cannot honestly combat the ensuing conformism, any more than can the intensively, personally engaged researcher who is “in love” with a definite methodology or theory. Radical pluralism of research programs is a powerful liberating force.

People still consider a person’s general outlook, his view of life and the cosmos and world history, as part of his whole personality—or at least within many subcultures a tendency to pay lip service to such a conception of a person still persists. But popularized science, whose present tendency in the matter of worldviews is nearly always toward the authoritarian and monolithic, influences us in the direction of either abandoning all our efforts to retain a general outlook, or of forcing it into conformity with the dominant world picture.

A worldview typology that uses different scientific world pictures and different philosophical systematizations as its basis will show how freedom of choice increases as a view draws closer to the fundamentals—ontology, methodology, epistemology, philosophical logic, anthropology, and philosophy of history. In this way I see such a typology as a source of cultural diversity and personal integration. It would comprise a new trend of popularizing science, inviting the general public to study and enjoy diverse interpretations in their comprehensive settings.

In what way freedom of choice increases might be better explained by the concepts “definiteness of intention” and “preciseness,” which were introduced in my *Interpretation and Preciseness* (1953b [SWAN I]). The latter

can be sketched as follows: a sentence T_i is *more precise than* a sentence T_0 , if there is at least one interpretation that T_0 admits, but T_i does not, and if there is no interpretation admitted by T_i that is not also admitted by T_0 .

Preciseness thus defined is a transitive relation, and definiteness of intention can be measured with reference to chains of “precizations,” $T_0, T_1, T_{11}, T_{111}, \dots$, where T_{111} (and T_{112}, T_{113}, \dots) are more precise than T_{11} (and T_{12} and T_{13}) and T_{11} more precise than T_1 . If a person fails to discriminate at the level of T_{111} , but succeeds at the level of T_{11} , T_{111} is said to be a transintentional precization to his set of discriminations. All measurements are relative to discrimination grids that function as reference systems.

The following diagram illustrates the various concepts:

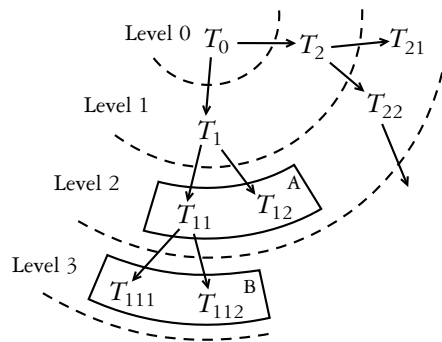


Figure 4. Illustration showing the levels of discrimination and preciseness. If an intended discrimination can be located at level 3, it is more definite—more precise—than a discrimination that can be located at level 2 but not at level 3.

Applying these concepts to the pluralist thesis, or view, I suggest that we present, for instance, the various expositions of physical theories at the T_0 level. It is a relatively neutral level only because of its low level of philosophical discrimination. The professional expositions have, of course, great preciseness and great definiteness of intention in professional, scientific directions. But what concern us here are the broad, nonscientific, untechnical interpretations of terms like *matter*, *particle*, *mass*, and *force*. These interpretations furnish our common ground in discussions. In this respect, the expositions are at the T_0 level. Any sufficiently vigorous effort to uncover and articulate the full cognitive meanings of such terms reveals

the philosophical idiosyncrasies of the author. Ultimately, the same philosophical system is presupposed. It is only within such a system that it is possible to offer precise reasons for the decision to continue working with one theory rather than any other. The requirements that a choice must be rational and the results coherent are, so to speak, formal requirements whose contents are determined by the value norms and postulates of the adopted system. Taken in isolation, they are not sufficient to advise the scientists.

From this it follows that it is problematic to compare scientific theories or images of the scientific enterprise that are made precise in different philosophical directions. Such comparison must presuppose a common standard or value system. But a standard can only be valid within a particular philosophical system. If the theories or images refer to philosophical systems that are sufficiently different, they are incomparable. Both are to be considered *valid*, but as this concept refers to a definite philosophical system or class of systems, one cannot say that the theories or images are *equally* valid. A further discussion on validity appears below.

I also want to point to another consequence of this view. It is what we may call the *indeterminacy relation* between preciseness and definiteness of intention on the one hand, and neutrality and comparability on the other hand. If one starts making an exposition of a theory more and more precise in a definite philosophical direction, what is gained in preciseness is lost in philosophical neutrality and comparability, and vice versa. This result can also be extended to expositions of images of scientific research.

A monolithic, soul-shrinking jargon still prevails in discussions on worldviews among creative scientists. It is as if the prestige of science as a truth-seeking project depended on the emergence of one definite world picture, *the* scientific world picture, as opposed to all the unscientific ones—the confused, vague, irresponsible metaphysical views, the grand illusions of the religious believer and of the cognitively irrelevant artist.¹⁰ A consequence of this is that increase of uniformity of opinion is cheered as if it were a reliable indicator of increase in truth content, neglecting the possibility that it is the urge to conform that prevails.

Now, I should have to admit that although the foregoing remarks may have a sufficiently clear sense as suggestions within general philosophy of culture and politics, they are highly resistant to precise formulation

in relation to philosophy of science. Tentatively, however, I propose the following formulations:

1. *All consistent, comprehensive points of view have a non-zero status of validity.* As to comprehensiveness, the points of view must explicitly include logic, methodology, semantics, and ontology—or a set of arguments to the effect that a body of rules and assertions of one or more of these kinds is unnecessary, nonsensical, or has some property justifying its absence from a maximal comprehensive view. Instead of *comprehensive*, we might use the terms *near-total* or *near-global*. Instead of *points of view*, we could substitute *view* or *system*, but not *doctrine*, since norms, postulates, and assumptions are usually thought to be absent from doctrines.

The term *validity* is used in such a sense that the first links in argument chains within a particular system are taken to be true or correct—until further notice. That is, it may turn out that acceptance of the first links (initial sentences) in an argument for a methodology M_1 entail acceptance of some observation sentences that contradict some other set of first links in the system. It has then to be decided whether to modify the methodology M_1 or dispense with the initial sentences affected by the observations. If this cannot be decided *within* the system, a modification is called for that, strictly speaking, means the abandonment of the system in favor of one resembling it.

The somewhat awkward quasi-scientific expression “non-zero status of validity” is preferred to “true,” “valid,” and “correct” for several reasons. Negativity (non-) is used to stress a minimum assertion. It is untenable to proclaim that validity is *absent*. A kind of validity is present. But what kind? “True” has too strong associations with “agreement with reality”; systems constitute conceptions of reality, rather than mirrors or isomorphical structures. “Correct” is too suggestive of measurement against an already established yardstick.

2. *Reality is one.* This short sentence functions as a pronouncement against those who think that the acceptance of the above thesis of equivalence of validity goes against ontological realism. There cannot be but one true system, it is said, because there is only one

world, or reality. If two systems are mutually inconsistent, they cannot both be true—that is, agree with reality. But the relation between system and reality is not one of mirroring or copying, not even one of structural isomorphism. Therefore:

3. *Two mutually inconsistent systems may both correspond to reality.* The view we have of the relation of systems to reality *need* not be of the special kind that makes it impossible for there to be many mutually inconsistent systems covering the same reality or part of reality. The rules of use for the term *reality* make it a kind of “regulative idea” in the sense of Kant. They do not make it represent a definite structure or substructure.
4. *A comprehensive and consistent point of view is not something a person (or community, or society, or epoch) can “have.”* This strange assertion is needed to counter those who equate the equivalidity thesis with what they call “voluntarism” and “subjectivism.” One can, as a person, without restrictions, *choose* one’s philosophy or metaphysics and adopt the kind of language one wishes to use. So, according to this perspective, the particular comprehensive view one adopts is purely a question of personal choice. But against this I hold that if an explicit choice is made, and based on a scale of priorities, one already *has* a very substantial part of such a comprehensive view. Any view that has the required degree of comprehensiveness is such that a whole person cannot stay outside and choose. If a person is, nevertheless, said to “have” such a view, it must be regarded as part of his personality. He cannot step out of his own skin. But he can change. And therefore “his” view may change.

Here I am only making use of the vague distinction stressed by Gabriel Marcel between being and having. A complex entity like a community, a society, or an epoch, can be said to “have” a comprehensive and consistent view only in a rather general, vague sense. There are trends, forces, and traditions that dominate the overall picture when seen from the outside (by the historian). But these trends, forces, and traditions are in part constitutive of the collectivities; we do not find the comprehensive views inside the community, society, or epoch. They are integrated in such a way that the community minus the tradition would not be that community.

And they are not to be identified with theories that the members of the community articulate and call “our view of life” and so forth.

5. *Points 1 through 4 are not capable of being made precise beyond certain (ill-defined, modest) limits of definiteness.* That is, any effort to construct a precise, professionally adequate theory (doctrine) of comprehensive points of view, including a “typology of possible worldviews,” is bound to be self-defeating because it requires an elaborate conceptual taxonomy or framework, and there are no such systems that are neutral in relation to the comprehensive points of view to be classified. They can each include a metasystemic doctrine, but the variation of systems cannot be maximal. The efforts of Georg Hegel, Wilhelm Dilthey, Karl Jaspers, and others to erect a general typology of *Weltanschauungen* show the dependence of their taxonomy on their particular comprehensive views. Hegel forces his framework on *his* classification; Dilthey imposes his historicism on all systems; and Jaspers lets them all float in a kind of Kierkegaardian pseudopsychiatric medium.

Gandhi and Group Conflict

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

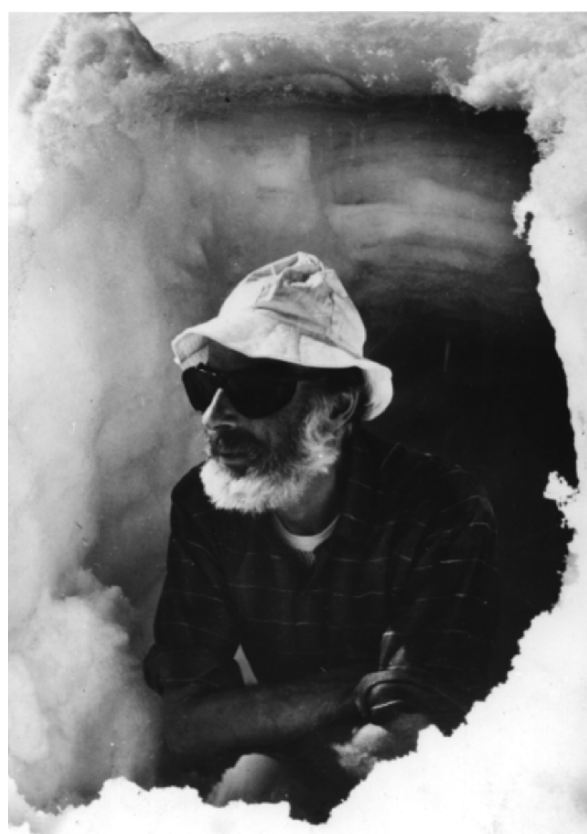
Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

Revised and Edited by Harold Glasser
in Cooperation with the Author
and with Assistance from Alan Drengson

VOLUME V

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)
ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in English by Universitetsforlaget, Oslo, 1974.

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved
© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>List of Figures</i>	<i>xi</i>
<i>Series Editor's Introduction</i>	<i>xiii</i>
<i>Author's Introduction to the Series</i>	<i>lix</i>
<i>Author's Preface to This Edition</i>	<i>lxv</i>
<i>Author's Foreword to the First Edition</i>	<i>lxvii</i>
I. Gandhi's Experiments	I
Gandhi: Merely a Man	I
It Works	5
Empirical Basis of Nonviolent Extremism	9
Moralism and Pragmatism	11
II. The Metaphysics of <i>Satyāgraha</i>	15
Truth	15
Absence of Theology: Pragmatic and Agnostic Leanings	15
Multiple Use of Language: To Inform, Convince, Preach, Agitate	17
Truth and God	18
Five Components of Gandhi's Use of the Term <i>Truth</i>	19
Fallibility, Pluralism, and Scepticism (Zeteticism)	21
Truth, God, and Self-Realization	27
The Trinity of Realizations	27
The Devotion of a <i>Karmayogin</i>	28
The Self of Egotism and the Universal Self	30
Humility, Egotism, and Self-Realization	30
The Universal Self	33
The Supreme Conceptual Bridge: From "Truth," "self," "Self," and "Egotism" over "Essential Unity of Humanity" to "Nonviolence"	35
Synopsis	37

CONTENTS

Nonviolence	38
<i>Himsā</i> and <i>Ahimsā</i> : Broad and Narrow Concepts	38
Gandhi on Nonviolence	43
Gandhi on Truth	44
A Conceptual Reconstruction	46
Graphic Presentation of Principles and Norms:	
Systematizations *E and *F	48
 III. Norms and Hypotheses of Gandhian Ethics and Strategy of Group Struggle	 53
Introductory Remarks	53
Aim of the Systematization	53
The Particular Norms and Hypotheses	57
First and Second Levels	57
Third-Level Hypotheses	66
Third-Level Norms	72
Fourth-Level Hypotheses	79
Fourth-Level Norms	80
Elaboration and Exemplification	85
Constructive Programs	85
Nonexploitation of Weakness	87
Coercion	89
Strict and Less Strict <i>Satyāgraha</i>	92
 IV. Nonviolence and the “New Violence”	 97
The Contemporary Reaction Against Nonviolence	97
Comparing the Recent Norms of Violence with Those of <i>Satyāgraha</i>	98
What to Learn from the Reaction Against Nonviolence	106
The Basic Requirement of Self-Respect: Fearlessness	108
Violence Preferable to Cowardice	110
Violence as a Means to Increase Self-Respect	114
<i>Satyāgraha</i> Is Not a Set of Techniques	116
The Use of Violence as a Sign of Impotency	119
Gandhi’s Notion of Nonviolence: Axiology or Deontology?	121
Constructive, Goal-Revealing Campaigns	123
Constructivity and Destructivity in Gandhi’s Salt <i>Satyāgraha</i>	124
Conclusion	128

CONTENTS

V. Comparison with Certain Other Philosophies of Conflict	131
Luther and Gandhi	131
Nietzsche and Gandhi	138
Tolstoy and Gandhi	141
Jaspers and Gandhi	144
 <i>Appendix I. Life of Gandbi: Chronology of Satyāgraha</i>	 153
<i>Appendix II. Norms and Hypotheses: A Survey</i>	157
<i>Appendix III. Key Expressions in Norms and Hypotheses</i>	163
<i>Notes</i>	165
<i>References</i>	171
<i>Index</i>	177

List of Figures

Figures

- | | |
|---|----|
| 1. Graphic presentation of the norms and hypotheses of Systematization * <i>E</i> . | 49 |
| 2. Graphic presentation of Gandhi's norms as depicted in Systematization * <i>F</i> . | 50 |

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's lingua). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of

what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philosophical palette, not the “world” of his own consciousness as has become

the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our experience of the world is made up of gestalts. "[This] is the world we experience. Nothing is more real."⁴ People create abstract structures to reflect

SERIES EDITOR'S INTRODUCTION

on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess's parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess's "ontological realism" as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of "reality is one" plays a central role in the mature Naess's approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality's concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. "As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence."⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess's perspective, such accounts by themselves are merely a sign of cultural poverty. "God" could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess's gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as "the social construction of nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular

to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility

SERIES EDITOR'S INTRODUCTION

as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his

rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative systems can be seen as very "useful fictions," which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others

SERIES EDITOR'S INTRODUCTION

as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a

troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. "We have all read it. We *still* cheat in argumentation, but now with feelings of guilt."¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as "truth," "democracy," and "private enterprise." . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy

SERIES EDITOR'S INTRODUCTION

and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of

SERIES EDITOR'S INTRODUCTION

print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a "great idea" without Doug's generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of envi-

SERIES EDITOR'S INTRODUCTION

ronment should not, in Naess's view, play a pivotal role in shaping a budding philosopher's development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess's philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess's principal writings. As such, the *Selected Works* is the definitive repository of Naess's oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess's philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded, and should follow his questions wherever they lead.

Arne Naess, "Norway"

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep

SERIES EDITOR'S INTRODUCTION

rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small moun-

SERIES EDITOR'S INTRODUCTION

tain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potently influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way"—*sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek

broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The

turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that

change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess’s 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers’ intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related these notions to philosophers’ theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess’s results were published as “*Truth as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess’s “Common Sense and Truth” (in SWAN VIII). Naess’s continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Us-

SERIES EDITOR'S INTRODUCTION

taoset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created “institutes” of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi's catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi's idea of trying to meet one's opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war,

Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO's requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy's* richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess's “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess's empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess's frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

SERIES EDITOR'S INTRODUCTION

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO's plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess's research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on

scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is

SERIES EDITOR'S INTRODUCTION

Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation*

and Preciseness, to argue that it is an illusion to assert that combined scientific and philosophical or “purely” philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V),

SERIES EDITOR'S INTRODUCTION

was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), "Seek complete self-realization" and "Seek truth," and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of "Self-realization!" as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by

Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions

SERIES EDITOR'S INTRODUCTION

taken earlier. Volume VIII includes sections on "Empirical Semantics and 'Truth,'" "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion,

and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work enter-

SERIES EDITOR'S INTRODUCTION

ing into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach’s proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans’ special capacities for reason and moral consciousness come special responsibilities,

particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and

SERIES EDITOR'S INTRODUCTION

interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three

key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy)

SERIES EDITOR'S INTRODUCTION

make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this ap-

proach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manu-

SERIES EDITOR'S INTRODUCTION

scripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and

SERIES EDITOR'S INTRODUCTION

Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also

SERIES EDITOR'S INTRODUCTION

performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-

SERIES EDITOR'S INTRODUCTION

Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible “work fairies” that were constantly pulling me back to my office don’t actually exist. I can’t wait.

Most of all, thanks to Arne Naess for placing his trust in me—it’s been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora’s box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne’s writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder’s “Axe Handles.” The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The

SERIES EDITOR'S INTRODUCTION

first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.

SERIES EDITOR'S INTRODUCTION

6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary

SERIES EDITOR'S INTRODUCTION

philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as

SERIES EDITOR'S INTRODUCTION

- being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.
24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
 25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
 26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Meneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
 27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhis Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
 28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
 29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
 30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecol-

SERIES EDITOR'S INTRODUCTION

ogy approach to ecophilosophy," the "deep ecology movement," and Naess's "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was "A philosopher." In fact, I had already conceived of myself as one. I viewed the

AUTHOR'S INTRODUCTION TO THE SERIES

writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that “What do I mean?” is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these “ordinary” people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally

AUTHOR'S INTRODUCTION TO THE SERIES

necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclina-

AUTHOR'S INTRODUCTION TO THE SERIES

tion very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it

AUTHOR'S INTRODUCTION TO THE SERIES

natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity,

AUTHOR'S INTRODUCTION TO THE SERIES

attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

SWAN V is my third book on Gandhi, and, as stated in the subtitle, it explores *satyāgraha* and its “theoretical background.” A volume on the practice of *satyāgraha*, the way of militant nonviolence, was to follow. It was to be written by my old collaborator on nonviolent action, Johan Galtung. However, my friend Johan had other, more pressing themes to write about, such as the Cultural Revolution in China. There was no such volume on nonviolence.

A central theme in Gandhi's philosophy is central to this book. It is perhaps most simply stated in these passages from Gandhi, where he expresses his feelings for the oneness and divine nature of all beings.

I know that you had naturally the art of looking upon trees and animals as friends. I wanted you to extend the idea so as not to feel the want of friends from outside. [There] should be a definite realization that personal friends and relations are no greater friends than strangers of the human family and bird, beast and plant. They are all one, and they are all an expression of God if we would but realize the fact. . . .

(*The Collected Works of Mahatma Gandhi*, vol. 51, p. 57)

There is nothing inanimate for Him. We are of the earth and earthy. . . . I feel nearer God by feeling Him through the earth. . . . [I] rejoice in establishing kinship with not only the lowliest of human beings, but also with the lowest forms of creation whose fate—reduction to dust—I have to share. . . .

(*Ibid.*, vol. 45, p. 80)

Thus, we are most intimately connected with every living creature in the world and with everything that exists; everything depends for its existence on everything else. . . . [Every] obstacle which we place between ourselves and the sky harms us physically, mentally and spiritually.

(*Ibid.*, vol. 49, p. 295; the above three passages are quoted in Power 1991: 100–102)

AUTHOR'S PREFACE TO THIS EDITION

There is another central theme in Gandhi's philosophy that needs mentioning: "Fearlessness is indispensable for the growth of the other noble qualities. How can one seek Truth, or cherish Love, without fearlessness?" (Power 1991: 109). "I believe that, where there is only a choice between cowardice and violence, I would advise violence" (ibid., p. 110). I try in a special chapter to interpret in this way the violence expressed in the 1970s by militant blacks against whites. As Gandhi might have said, Yes, there has been timidity among blacks facing arrogant and violent whites. In such cases, violence against whites may sometimes be the only way to overcome fear. Gandhi recognized that sometimes we have to act with determination and force to overcome fear and past anger so that we can move on to a nonviolent way of relating and acting.

The term *self-realization* as used at my Level 1 verbalization of a deep ecology total view is closely related to the term as used by Gandhi. In his doctoral thesis, *Gandhi and Deep Ecology: Experiencing the Non-human Environment*, done at the University of Salford, Shahed Ahmed Power documents in detail the remarkable relations between Gandhian and deep ecology thinking.¹ Only in the last years of his long life did Gandhi seem to admit with regret that sometimes human beings may be forced to kill or even exterminate "dangerous" animals.

Arne Naess

2004

Note

1. So far (2004) this thesis is unpublished, and if published it might be shortened and the relation to deep ecology neglected. The original dissertation can be obtained by writing to Dr. Shahed Ahmed Power at Environmental Resources Unit, University of Salford, Salford, England M5 4WT.

Author's Foreword to the First Edition

Since the 1950s and 1960s, Gandhi's teaching has acquired a new and unexpected significance. Technical and industrial development has put most decisions that touch the individual and his local environment into the hands of specialists. In addition, the division, or rather fragmentation, of labor has proceeded unhampered and has contributed to the unsurveyable character of these developments. Partly as a consequence, the traditional parliamentary procedures in Western democracies have degenerated to the extent that they neither furnish decisions that express "the will of the majority" (no such thing exists in the area of specialist knowledge) nor take sufficient care of vital minority interests. Reconsideration of philosophies of direct action has forced itself on the impatient and underprivileged.

Racial and cultural minorities have made use of violent means or, rather, have lowered restraints against the outbreak of violence. This anti-Gandhian development has, however, underlined the importance of Gandhi's teaching of self-respect — and the feeling of "being something" — as a necessary condition of nonviolence. Outbreaks of violence in ghettos and universities have been followed by despair: "the establishment" has at its command a superior capability to perpetrate violence. Chaos helps the more sinister forces on both sides to increase their power.

In the West, majorities still indulge in the righteous repression of minorities, forgetting that the traditional democratic procedures that were designed to protect minorities can work only imperfectly in technocracies. Gandhi himself reacted against majority rule and the utilitarian precept, "the greatest happiness for the greatest *number*." In his fight for minorities, his motto was "the greatest good for *everyone*," and the kind of fight he led based on direct, nonviolent action, is widely applicable to the problems of the underprivileged.

AUTHOR'S FOREWORD TO THE FIRST EDITION

The evils of great cities and suburban unlife have made Gandhi's fanatical antimetropolis attitude and his ideals of decentralization (the *panchayat* system) discussible. His tendency to support agriculture and decentralized industry in villages and small towns in order to stop the disastrous flight of peasants to the great cities is quite modern. Gandhi's utopia is one of the few that shows ecological balance, and today his rejection of the Western world's material abundance and waste is accepted by progressives of the ecology movement. A decade ago, Gandhi tended to be denounced as a reactionary dreamer by both Marxist and anti-Marxist economists. Now they are forced to take his conclusions seriously.

Gandhi did not want followers, and we cannot today submit to his leadership. However, we can, and I think must, consider his life and teaching when groping for solutions to our problems.

This book tries to concentrate on central topics of Gandhi's teaching. The religious and philosophical background has been given more space than usual. Our questions are: What has a completely secularized technocracy to offer? How can we replace the vast religious or philosophical sources of energy that have been available in all great societies? In searching for answers, it is important to find out to what extent the religious thought of Gandhi was independent of dogma and myths that today have no chance of being accepted as truths. In this respect, it is not only a question of where Gandhi stands in matters of dogma and myths, but of where the whole world of modern Buddhist and Hindu thinking stands. As will be made clear in what follows, the Gandhian approach is surprisingly free from dogma, and it is even able to accommodate the militant atheist among "believers in God." (He or she must be *militant*, however!)

The studies resulting in the conclusions of this book have been generously supported by the Norwegian Research Council for Science and the Humanities, and have also benefited greatly from a trip to Varanasi, which allowed me to become familiar with contemporary Gandhian groups in the motherland. The small but resourceful group of mostly young people who have tried to apply Gandhi's principles have been a constant source of joy and consolation to me when struggling with the vast theoretical questions of nonviolence. To them I owe a special debt of gratitude.

This book, which was originally planned to be the first volume of a more comprehensive work, will have a sequel by Professor Johan Galtung

AUTHOR'S FOREWORD TO THE FIRST EDITION

dealing with the practical implementation of Gandhian norms in contemporary societies. Professor Galtung also cooperated with me in the writing of this book. I hope that his now independent work will soon be available because a theoretical background is worth little without a practical foreground.

I would like to thank Alastair Hannay for his generous efforts to improve my English. I am also grateful to the publishers of my book *Gandhi and the Nuclear Age* (1965) for permission to use material from that work. Chapter 1 is taken, with slight alterations and additions, from pages 3–15 and 21–23 of that work; chapter 5 contains material from pages 81–92 and 98–106.

I

Gandhi's Experiments

Gandhi: Merely a Man

We find two diametrically opposed views of Mohandas K. Gandhi's moral stature. One has it that, ethically speaking, he was nearly perfect. Albert Einstein said of him, for instance, that generations to come would scarcely believe that such a man actually walked this earth, and in a collection of essays that appeared under the title *Gandhi Memorial Peace Number* (Roy 1949), a large number of eminent persons accord Gandhi the highest of praise as a moral being. We must also ask ourselves, however, what exactly is the nature of Gandhi's contribution and what is the basis for the tremendous esteem and adulation in which he has been held. For with regard to his own moral achievement, we find a second opinion that is, perhaps, as near the truth as the first: the opinion that Gandhi was often mistaken and that it would be wrong to take him unreservedly as a moral example for everyone.

The best known representative of this latter and more modest view happens to be Gandhi himself. "I claim no infallibility. I am conscious of having made Himalayan blunders . . ." (quoted in Pyarelal 1932: 133; also in Prabhu and Rao 1967: 9). There are other people also who firmly accept that he fell short of his own very high aims. The best collection of Gandhi's teaching, *The Mind of Mahatma Gandhi*, compiled by Ramachandra K. Prabhu and U. R. Rao (1946, revised and enlarged in 1967), opens with two chapters in which Gandhi speaks of his own personal imperfection, his mistakes, their painful consequences, and his unrequited desire for support.

Like many other strong personalities, Gandhi was authoritarian in his family life and, perhaps without clearly perceiving it himself, pressed his wife and eldest son into conformity with his own ideas. Gandhi admitted this and elaborated the point by saying that it was especially in his early life, with its violent changes of lifestyle, that he was not aware of his own

GANDHI'S EXPERIMENTS

coercive powers and that he hoped his younger sons did not have as bad a time as his eldest. About his first son, Gandhi says:

His grievance against me has always been that I sacrificed him and his brothers at the altar of what I wrongly believed to be public good. My other sons have laid more or less the same blame at my door, but with a good deal of hesitation, and they have generously forgiven me. My eldest son was the direct victim of my experiments. . . .

(*Harijan* 18.8.1940: 253–54; quoted in Gandhi 1961, vol. 1: 378)

This is not the place to go into details, but the general point is of importance: to stress Gandhi's exemplary moral character runs counter to his own perception and tends to force discussion away from his phenomenal achievements and their relevance today.

Discussion is also diverted from central issues when it is said that strong, nonviolent action presupposes a personal belief in God. Especially among socialists, one finds atheism highly esteemed, and people are mindful of Lenin's implacable fight against religion. What they forget is that Gandhi fought godlessness, not atheism. "You may call yourself an atheist, but so long as you feel akin with mankind you accept God in practice."¹ His prayers were self-directed and not childish begging. He called himself an "orthodox Hindu," but this very orthodoxy he interpreted more widely than anybody else, including under Hinduism the teachings of Jesus and Mohammed and treating Buddha as the great, inestimable reformer of Hinduism. His religiousness was revolutionary, of a sort that if it is crushed, then mankind is lost. "You believe in some principle, clothe it with life. . . . I should think it is enough" (*Harijan* 17.6.1939). The pervasive occurrence of the term *God* in the speeches and writings of Gandhi should not discourage any serious atheist or agnostic. Even a cursory study of the use of this word in religious contexts reveals its pragmatic and performatory, rather than purely descriptive, character.

Many of Gandhi's political opponents have maintained that it was difficult to bring him to the realization that he had made a mistake when he was convinced he had not, but even those criticisms do not detract from the sincerity of Gandhi's own declarations of imperfection. He saw then, as clearly as we can with hindsight, how uninhibited idealizing came to play a fateful role for him. We can see this process by distinguishing three separate phases in his relationships with his supporters. In the first phase the re-

lationship can be expressed as the attitude “We won’t manage any better with him, but it would be unwise to shake him off”; in the second, as “Together with him we’ll certainly manage”; and in the third, as “He’ll manage *for us*.” In the second phase, Gandhi achieved his best work; in the third, his contribution greatly diminished. A great cause, Gandhi reflects, “can only be injured rather than advanced by glorification of its leaders” (*Young India* 13.7.1921; quoted in Prabhu and Rao 1967: 12). His successes in that last stage came increasingly to be attributed to his own high moral attainments. He was already a saint, a demigod. It became all too easy for people to think, “Whatever he says or does can’t possibly have much to do with what I can do. I have no great moral ambition nor any special abilities; I can’t reasonably be expected to follow his example.” By thus becoming clothed in a mystique of remoteness and divinity, Gandhi’s words lost the special appeal they had when his prestige had not yet reached its peak.

People came to stress the morality, not the efficiency, of nonviolent campaigns. As a leader of the nation, Jawaharlal Nehru insisted, “I am not a Gandhi,” not a man of that lofty character. “Therefore,” he seemed to say, “I have to rely on arms and on other means that Gandhi despised.”

The case of Albert Schweitzer presents a parallel. Here we have a man of outstanding ability, the recipient of several doctorates, an eminent musician, missionary, theologian, and healer; how possibly could such a paragon inspire ordinary mortals to action? Excellence of this order seems more likely to induce amazement and reverence than friendly cooperation. It is quite different, of course, if the man next door goes off to Africa to start up a small hospital: knowing Jones as we do, we feel there are no real obstacles to our following in his footsteps, should we feel so inspired.

Gandhi was never able, moreover, to make it sufficiently clear to his supporters that a nonviolent army needs soldiers, not just a general. When the crowds pressed in on all sides to touch him, they did not come to listen to what he said or to work with him; they came for comfort. These occasions were among the few when Gandhi lost control and showed anger. (“It is not that I do not get angry. I do not give vent to anger” [*Harijan* 11.5.35; quoted in Prabhu and Rao 1967: 16].) With Gandhi, as with others, reverence for the man himself is a product of the literature that grows up around him, but this literature contains little support for the reverential attitude. The essential picture we get of Gandhi agrees less with that of his famous admirers than with his own.

GANDHI'S EXPERIMENTS

I have become literally sick of the adoration of the unthinking multitude. I would feel certain of my ground if I was spat upon by them. Then there would be no need for confession of Himalayan and other miscalculations, no retracing, no re-arranging.

(*Young India* 2.3.1922: 135; quoted in Prabhu and Rao 1967: 11)

To describe Gandhi as a moral genius, however, would not be altogether absurd if what we want to stress is his constructive imagination and uncommon ingenuity in finding and applying morally acceptable forms of political action. In this field, Gandhi was an Edison. He made incredible discoveries in the field of ethics and politics and showed how to apply those discoveries. This, rather than any high moral level of his own conduct, is the truly remarkable feature of his achievement. Personally, of course, he did continually exert himself to maintain a high moral standard, but many people do that without ever making a moral discovery, a contribution to moral thinking and practice.

Especially in the West, Gandhi has been described as an ascetic. This is inadequate. He lived in certain respects like his followers among the poor, but his modest consumption was motivated less by Indian ascetic ideas than by certain views on the healthy life.

The life I am living is entirely very easy and very comfortable, if ease and comfort are a mental state. I have all I need without the slightest care of having to keep any personal treasures. . . . I regard myself as a householder, leading a humble life of service and, in common with my fellow-workers, living upon the charity of friends. . . .

(*Young India* 1.10.1925: 338; quoted in Prabhu and Rao 1967: 4)

He was also influenced by the idea that a person devoted to a great cause cannot afford to use energy for other purposes.²

India has long traditions of ascetic exercises and austerities, the *tapas*. A *saṁnyāsīn* is a person who renounces the world, who abandons and resigns worldly affairs and often starves himself in the effort to reach higher levels of religious consciousness. Gandhi explicitly repudiates that he is or ever tried to be a *saṁnyāsīn*.

Gandhi earned the title *mahātman*, great soul, primarily because of the effect of his work. To understand this, we must see the difference between external and internal criteria of moral quality. Referring to external criteria, the

goodness of an act is judged relative to its consequences. Referring to internal criteria, on the other hand, the strength of one's will to do good, the inflexibility of one's good intentions, is what counts. In practical life, where it is primarily what people do that matters, we tend to measure moral value in terms of achievement, not intention; and for Gandhi, too, it was what was accomplished that mattered. Thus, when we judge him, we must bear in mind that from the practical viewpoint, great moral achievement need not presuppose a corresponding degree of personal morality.

It Works

Gandhi and his influence can be studied from many points of view. In the following chapters, we shall concentrate on his teaching, in particular on his direct instruction for group conflict. The first question, then, must be, What is most characteristic and highly developed in Gandhi's teaching? Perhaps we are inclined to answer immediately that it was his conviction that the use of violence against living, sensible beings is never morally warranted, that it always infringes valid moral principles. Accordingly, Gandhi's doctrine might be summed up in one commandment: "Thou shalt not use violence." However, such a commandment would be highly misleading. The essential and most important point in Gandhi's doctrine, taken as a whole, is not a principle or a commandment, but the working hypothesis that the nonviolent resolution of group conflict is a practicable goal—despite our own and our opponents' imperfections, nonviolent means are in the long run more effective and reliable than violent ones; and they should be trusted even if they seem unsatisfactory for the moment. He teaches that nonviolence is a practical method that we may, indeed must, adopt immediately and without hesitation in social, political, national, and international conflicts. Here Gandhi is talking to all of us, not mainly to politicians whose power is dependent on the opinions of others.

Understood in this way, the essential and most original aspect of Gandhi's teaching is his descriptive and explanatory account of man and of man's ability to resolve his own conflicts. In the realm of principles and metaphysics, Gandhi shows no remarkable originality.

Any systematic morality must base itself on a number of purely descriptive or causal assumptions, as well as on intuitive, normative notions.

GANDHI'S EXPERIMENTS

Indeed, it is often precisely the emphasis it puts on one or the other of these two factors that gives a moral view its distinctive stamp; generally the tendency is for systems to lean toward descriptive and causal characteristics rather than intuitive and normative ones. It is therefore not so remarkable that new working hypotheses and methods covering group action can have immense import morally and normatively. Let us see what this general feature of philosophical systems can tell us about Gandhi.

There is nothing very original in condemning violence; and in any case, Gandhi's condemnation of physical violence is considerably less radical and more qualified than that of many other moralists. The doctrine that violence and coercion against one's fellow humans are indications of moral poverty is to be found in the teachings of prophets, philosophers, and wise men as far back as historical records go. In fact, among the generally acknowledged moral leaders from the time of ancient China and India down to the present, the principle of nonviolence has been the rule, and the condoning of violence, even in defense, the exception. In ancient India, not only was vengeance condemned, but the commandment "Thou shalt not kill" was often extended to all animal life. However, alongside this one often finds pessimistically and fatalistically colored theories of human frailty and of man's inability to adhere strictly to such commandments. Evil nature and ignorance have usually been considered to be so deeply ingrained in man that general use of nonviolence in ordinary political and social struggle is thought to be impracticable, or else the principle of nonviolence has been associated with the view that nonviolent methods, even if the individual could and did employ them, would be ineffective in any significant social and political conflict. In our own culture, influential studies of mass psychology have similarly stressed the impulse to mass violence, even if conceding that, individually, men are peaceable enough.³ All of these theories espousing "it will not work" are clearly anti-Gandhian, for Gandhi's teaching in its essence and originality is the straightforward doctrine that it *will* work and that it can be shown to work. The proof of this for him lay in his own all-important "experiments."

It follows that the focus of our examination of Gandhi's thought must be centered on his view of man and man's possibilities, especially on his faith in the inexhaustible richness of ways of mass action without violence and in the practical possibility of influencing every individual and group

by the example of nonviolent conduct. That this is the correct approach should be clear if we first base our study on, among other things, an examination of the contributions Gandhi made at the time when he was forming his ideas, that is, on a study of his activities in South Africa.

If the originality of Gandhi's teaching lies in his account of what men are constitutionally capable of, what it is in man's power to accomplish, it would nevertheless be misleading to say that his teaching was mainly of a descriptive character; above all, Gandhi stressed man's duties. To UNESCO's inquiry about individual rights, Gandhi replied characteristically that primarily man has no rights, only duties. From the duties, the rights follow like spring follows winter.

Gandhi maintained that the key to his faith in nonviolence lay in his practical experience with men. Since he believed only in the truth of what he was able to test, we are in a position to test his own power of judgment by reviewing and examining as far as possible what his actual experience with men was.

So far, research on Gandhi has neglected to view his activity from this standpoint. Although we cannot attempt any very comprehensive survey here, what we can and will do is to describe briefly some of his experiments.

When the Boer War broke out in 1899, Gandhi, though his "personal sympathies were all with the Boers," felt that if he was to demand rights as a British citizen, it was his duty as such to participate in the defense of the British Empire (Tendulkar 1951, vol. 1: 63). He collected 1,100 comrades to form an ambulance corps. Although opposed initially, Gandhi was eventually able to convince the British to accept their services at the end of 1899. This was done only after great difficulty, however, since the British apparently thought his countrymen unsuited to carrying weapons, unsuited even to carrying stretchers on the battlefield, and hence consigned them to transporting dead and wounded behind the lines. However, Gandhi's men showed unexpected courage and were eventually accorded the "honor" of working in the front line. A few years later, during the so-called Zulu rebellion of 1906, Gandhi himself organized an ambulance corps, which brought him into contact with some Zulus who had been flogged by the British. He and his corps also took care of people who had received burns when the British set fire to villages. Had he chosen to, he could have written an account of his experiences that would have caused

GANDHI'S EXPERIMENTS

consternation and horror and have increased the bitterness and hatred that already existed. However, instead of inflaming negative feeling, Gandhi did all he could to improve relations between the British and the Zulus. Thus we see him at this early stage, a courageous and influential man, already looking for positive solutions to problems of bloody conflict.

Another instance is worth mentioning. Indians in South Africa had become embittered by a judgment of the Supreme Court in 1913 that the state was henceforth to recognize Christian marriages only. Indian mothers were thus considered unmarried unless married as Christians. As a consequence, political demonstrations by women, something quite exceptional at the time, broke out. Gandhi succeeded, however, in getting the women actively involved in a wider struggle by persuading them to undertake a long march to the mines; the miners were then persuaded to stop work and to join the protest. Indignation grew to a high pitch when the men's wives were thrown into jail with male criminals, but Gandhi did not exploit the negative feelings. He persuaded the miners that whatever they did, they must avoid the use of violence, and he urged them to recognize that they would best attain their ends by other means. The miners, between two and six thousand of them, marched resolutely into the Transvaal, completely avoiding the use of violence — despite repressive measures taken against them by the police and frustrations caused by privation and hunger.

This march strengthened Gandhi's belief in the ability of the common man to grasp the meaning of nonviolence. The marchers were wholly illiterate; far from belonging to any culturally enlightened section of the community, they were, on the contrary, neither peaceable nor meek by disposition, but oppressed men who, seething with anger, had joined together to oppose repression and the discrimination shown against them.

Another case is even more illuminating. When a violent railway strike broke out that caused the government to declare martial law, Gandhi's own campaign had not been progressing very well. Now, suddenly, the government's own position was endangered, and Gandhi held a very good card. Ordinary political strategy would dictate that he play this card, take full advantage of the situation, and enlarge the immediate goals of his campaign. However, all Gandhi did was to enunciate once again his aims, adding that he had said that his goal, as it was then and as it had been, was to bring about the end of racial discrimination. The railway strike could not help

to persuade the opposition of the justice of his goal; quite the contrary, if Gandhi's forces were now to make use of the difficult position of the government to push through their demands, they should have done so without persuading their opponent of the justice of the Indians' cause.⁴

Gandhi broke off his campaign until the strike ended. In the long history of political strife, this event must surely have few parallels. The impression it made was profound. Gandhi's opponents saw that he and his followers literally meant what they said when they claimed, "This and only this is our aim in this struggle." By not exploiting their advantageous position, Gandhi's supporters remained true to his and their own aim, which was future cooperation with those who were then their opponents. He was able to draw his own conclusions from the effect made by such a plea for moderation.

If Gandhi had written a psychology of the masses, it would, no doubt, have been quite different from those that equate mass man with the aggressive coward, for he had seen with his own eyes how the masses are capable of being led to two extremes — on the one hand, to the most horrifying violence, and on the other, to the most inspiring kind of nonviolence. Gandhi invites us all to continue *experimenting* with nonviolence, and to see for ourselves what can be achieved.

Empirical Basis of Nonviolent Extremism

The combination of courage, sacrifice, and devotion to humanity shown by Gandhi does not significantly distinguish him from many thousands, even millions, of forgotten men who, in the course of history, have shown similar moral qualities. "The world knows so little of how much my so-called greatness depends upon the incessant toil and drudgery of silent, devoted, able and pure workers, men as well as women" (*Young India* 26.4.1928: 130). Perhaps the greatest moral heroes of all time have slipped by unknown and unacclaimed, or at least unrecorded. This may be true, but let us remember that Gandhi's experiments are not mentioned to illustrate any exceptional level of morality. Moral evaluations, at least those speaking of courage and so forth, assume insight into another person's motives, and motives are notoriously elusive. We invite the reader to study Gandhi's "experiments with truth" *within group conflicts* and apart from any opinion about their moral

GANDHI'S EXPERIMENTS

value. As I have already remarked, it is on the field of practical principle and action that our interest in Gandhi's teaching on conflict must mainly focus, not on the moral quality of his individual acts.⁵

It was Gandhi's claim that the greater the efficiency he acquired in the use of nonviolence, the greater the impression nonviolence made on his opponents. This claim he held to be a legacy of his experiences in South Africa. Was he right in this? Did his claim follow, according to inductive principles, as a valid conclusion from what he observed?

The railway strike episode and others of a similar kind did in fact provide Gandhi with an empirical basis for the hypothesis that the more he applied, even to fanatical extremes, the principle of nonviolence, the greater was its effect, and that every increase, no matter how slight, in the purity of the application of the principle meant an increase in the chances of success. Thus we can see what was meant by Gandhi's seemingly extreme claim that if one man were able to achieve an entirely perfect, nonviolent method, all the opposition in the world would vanish. Yet we must be careful to note that Gandhi explicitly stated that we are all more or less imperfect, not least himself, and that therefore we can talk only in terms of degrees of success and not perfection.

Gandhi, then, had a substantial experimental basis for his claim that the consistent, or pure, forms of *satyāgraha* (strictly, "method of holding on to truth") are more effective than the less consistent, or less pure, and that an increase in consistency or purity is especially favorable when a struggle is already well advanced. He had, in other words, an argument for nonviolence over and above the purely moral one, and this argument is strongly empirical and utilitarian. It may not seem so strange, then, that the versions that Gandhi's opponents gave of the political struggle in South Africa agree with his own, for where nonviolence was at once most consistent and effective, no side suffered from the struggle itself or from its outcome.

Gandhi's campaigns were fought in widely different environments. Only in South Africa were the numbers of people on his and on the other side small enough to make it possible for him to lead the campaigns personally. The opposing groups were sometimes rather rough — the extremely violent Pathans being one of the groups he antagonized but eventually turned into cooperating friends. In South Africa and in India, he met the British Empire's colonial police and jailers. Blood flowed freely, but the high ad-

ministration was eager not to use extreme forms of terror. In the conflicts between various religious groupings, terror was extreme; here Gandhi and his helpers showed how nonviolent methods were able to bring huge riots under control. It has been objected that under Hitler, Gandhi's nonviolence would have been of no avail. However, the Jews could scarcely have suffered more than they did, and it is an open question whether active nonviolent resistance would not have reduced the suffering and number of deaths. No leaders were trying out ways of resistance adapted to the special features of the German situation. From an empirical point of view, it is therefore of little value to discuss the consequences of nonviolent struggles in the Fascist and National Socialist areas.

When judging Gandhi's influence by the standards he himself set for empirical adequacy, we must subject it to the same rigorous critical scrutiny that we apply to any piece of social research. We should, however, also note the enormous complexity of Gandhi's experiments compared with ordinary experiments in, say, social psychology. The number of unknown, or insufficiently known quantities is overwhelming—so much so, in fact, that no conclusions can really claim the title of "scientific." Nevertheless, not all worthwhile research need culminate in well-founded scientific conclusions, nor need the unavoidable uncertainty of a conclusion cause us to reject it.

What then is our verdict to be? Judging from the material available to us, I think we may agree with Gandhi that his approach did in fact work and that the positive results of his action can to a large extent be traced to the nonviolence that characterized his campaign. If we look at nonviolence as a *working hypothesis*, the conclusion that nonviolence can be a vital force in resolving conflicts appears to be a valid inference from the experiments in which Gandhi was involved, however few and scattered these operations were.

Moralism and Pragmatism

Gandhi's writings and speeches are full of moral injunctions and exhortations. He was forever moralizing. That this did not depress those around him seems to be due to his humility, cheerful disposition, and profound sense of humor. "If I had no sense of humour, I should long ago have committed suicide" (*Young India* 18.8.1921: 238). Before that he might have been murdered!

GANDHI'S EXPERIMENTS

When reading the moralizing speeches, one's first impression is that Gandhi is severely curtailing political action: do *not* do this, do *not* do that. The promise to use only nonviolent means might seem tantamount to caring rather little for the aim and subordinating it to moral exercise. However, there is no known case in fifty years of fighting in which Gandhi states that although an aim could be reached more easily or more thoroughly through some measure of violence, one ought to remain nonviolent. He never gave expression to the view that a *satyāgraha*, or any part of a (genuine) *satyāgraha* was less effective than an alternative involving violence. Thus, every conclusion in the form of a moral prescription had a nonnormative equivalent. That is, the conclusion could be reached from premises of a purely instrumental character, lacking any moral ingredients.

If the reader suspects that this is only a sort of argumentational sleight of hand, it may be because he is unaware of the multiplicity of and different kinds of aims that a given political action is intended to help realize. A plan to murder someone or a plan to support a false rumor has an immediate objective of little or no intrinsic importance. It is the widespread indirect effects of such actions that count. If certain effects of an action obviously occur only through violence, Gandhi turns our attention to other effects that can hardly occur except by nonviolence. This example suggests how Gandhi never *needed* to rely on moral principles but could always argue empirically and pragmatically.

"Would you recommend nonviolence even if the world were such that it could not succeed?" This kind of question Gandhi never answered very clearly, it being in his opinion based on a contrary-to-fact hypothesis.

One may say that Gandhi had, or found himself committed to, a definite political ethics. Having said this, however, one must add, first, that the definiteness had limits: if one tries step by step to make the normative formulations more precise, to eliminate borderline cases, and to cover all kinds of hypothetical cases, it soon becomes clear that the implications of Gandhi's actions and speeches do not solve all dilemmas.

Second, one must add that the commitment to a definite political ethics does not imply the abdication of "the gentle inner voice." The ethical system can at most only codify or systematize past ethical decisions. No new decision follows from it. Each new decision, and each repetition of a kind of decision made earlier, must rest on the free reflection and deliberation of the subject. The system may help to make clear the interconnection

of past decisions, and the implications for the present, if one follows the same rules and uses the same hypotheses.

All of this will become clearer when we discuss definite norms and hypotheses in chapter 3. Here it is our aim only to clarify the nature of our approach to describing that part of Gandhi's political ethics that covers behavior in group conflicts.

Taking Gandhi to be a sender of norms, who is the intended receiver? The primary group of receivers were the listeners to his speeches and the readers of *Young India* and *Harijan*. Much was explicitly aimed at the British, and Gandhi often expressed his wish to reach a world audience, calling attention to what was happening in India. The more special norms can only be understood by describing special situations in India and South Africa, but adequate formulation must be such that the claim to universality is apparent. However dependent upon local circumstances, including the level of nonviolent training of the campaigners, Gandhi, like Hume, Kant, and others, conceived ethical norms as having a universal validity. Under certain sets of circumstances, certain kinds of behavior in conflict are timelessly right, others wrong.

For Gandhi, as for others who act in political life, there are questions of strategy and tactics. Some find a contradiction here. However, the timing of a campaign and all the measures and countermeasures must be chosen in harmony with hypotheses concerning causes and effects. Cleverness is necessary. The norms and hypotheses of nonviolence apply to strategy and tactics, but if Gandhi is right in his hypotheses, they never rule out the use of effective means. No effective tactical moves are ruled out. The norms do not introduce any limitations in that respect.

This point, like many others, reminds us of the fundamental function of *factual hypotheses* in Gandhi's ethics. Sometimes an ethics is conceived as a set of norms without any descriptive components. There is, however, no instance of an ethics that is capable of adequate formulations but contains no ordinary declarative sentences.

In what follows, we make extensive use of Gandhi's own explicit reasonings in the description of his ethics. Therefore, his many norms have unavoidably colored our exposition. Nearly all of them could be eliminated in favor of nonnormative statements, for example, "If one's intention is to reach a certain goal, then this particular behavior is more effective than that behavior." Although sentences of this and similar kinds often do not con-

GANDHI'S EXPERIMENTS

form to Gandhi's own way of talking, they can be used to express the bulk of his teaching.

The extensive use of Gandhi's own lucid argumentation does not imply an underestimation of the obscurity and complexity of his imperfectly articulated, or even unconscious, motivations. Erik H. Erikson (1969) has recently delved into this latter realm. His findings confirm that the basic norms and hypotheses of Gandhi had deep psychological roots in his character.

II

The Metaphysics of *Satyāgraha*

Truth

Absence of Theology: Pragmatic and Agnostic Leanings

Any adequate account of Gandhi's ethics and strategy of group conflict must take account not only his most general and abstract metaphysical ideas, but also the religious content of his sermons. His basic ideas and attitudes influenced his concrete norms and hypotheses and his conflict *praxis*. His numerous public prayers were part of his political campaigns, his political campaigns part of his dealings with God.

As mentioned, Gandhi considered himself a Hindu. He gives a condensed characterization of his belief in Hinduism and his relations to other religions in his article "Hinduism" (*Young India* 6.10.1921). Yet, Gandhi found Truth in many religions and faiths, and this explains why his teaching on group conflicts has no definite theological premises. The passage quoted earlier elaborates: "You believe in some principle, clothe it with life, and say it is your God, and you believe in it. . . . I should think it is enough" (*Harijan* 17.6.1939).

Gandhi's view is well within the wide perspective of modern theological movements. According to the religious thinker Paul Tillich, there is a dimension of depth in being¹:

That depth is what the word *God* means. And if that word has not much meaning for you, translate it, and speak of the depths of your life, of the source of your being, of your ultimate concern, of what you take seriously without any reservation. Perhaps, in order to do so, you must forget everything traditional that you have learned about God, perhaps even that word itself.

(Tillich 1948: 63 f.)

Militant atheism in the traditional sense is thus fully compatible with theism in Tillich's sense, perhaps even a necessary condition. Gandhi refused to call the atheist social workers of India "godless." Tillich refuses to call militant traditional atheists "atheists." "He who knows about depth knows about God" (Tillich 1948: 63 f.). Hence, militant atheists know about God; hence, they are not atheists.

Many Hindus denied that Gandhi was an orthodox Hindu and rejected his interpretations of the sacred texts, but he did not give up his universalist tendency for that reason. "If I am a Hindu, I cannot cease to be one even though I may be disowned by the whole of the Hindu population" (*Young India* 29.5.1924: 175; quoted in Prabhu and Rao 1967: 116).

His discussion with the atheist social worker G. Ramachandra Rao ("Gora") gave Gandhi the opportunity to stress the distinction between accepting God in theory and accepting God in practice: "You may call yourself an atheist, but so long as you feel akin with mankind you accept God in practice."²

For Gandhi, it is a necessary and sufficient condition for the truth of the sentences "N. N. believes in God," "N. N. accepts God," "N. N. believes in the existence of God," and "N. N. is not godless" that N. N. lives and acts in certain ways. N. N. may never have used the term *God*, or N. N. may be a militant atheist — these characteristics are not among the decisive ones.

Holding that belief or disbelief in God could only be shown and tested in practice, Gandhi did not take Rao's professed atheism as proof of disbelief in God. Nor would he take professed theism as proof of belief in God.

One may say that Gandhi accepted a pragmatic criterion, an action-oriented criterion, of truth for sentences like "God exists." He has no ontological conception of God such that those who believe that God has or does not have certain properties believe in God and those who believe he has or does not have certain other properties do not believe in God.

As to the certainty of our (intercultural) knowledge about God, Gandhi was largely an agnostic and stressed our limited powers of understanding. "God is the undefinable 'something' that we shall follow but do not know" (*Young India* 5.3.1925). He makes a distinction between God as worshiped and sought and God as the object of our thoughts and reflections. It is the former that counts.

*Multiple Use of Language: To Inform,
Convince, Preach, Agitate*

Gandhi was a great religious preacher, but in his sermons he combined preaching with ordinary factual information and political debate. There is no way of clearly separating the various uses of language. It is not possible, for instance, to separate performative uses of various kinds from cognitive uses. The term *God* mostly occurs in sentences that clearly exemplify performative religious uses, but it also occurs in sentences or is connected with sentences of ordinary cognitive use.

Religious uses are exemplified by passages like the following: “God is conscience. He is even the atheism of the atheist. For in His boundless love God permits the atheist to live. He is the searcher of hearts. He transcends speech and reason . . .” (*Young India* 5.3.1925: 81; quoted in Prabhu and Rao 1967: 49).

If one lists together some of the vast number of sentences of the kind “God is such and such,” it seems clear that it would be misleading to apply the principle of contradiction and other rules covering ordinary cognitive speech. In what follows, we shall quote and use religious sentences without any attempt to clarify to what extent they are intended to have a cognitive function. They may have none.

The latter solution is compatible with the trend to separate holy texts, such as the Bhagavad Gita and the New Testament, from organized religion.³ It elaborates and makes cognitive, whereas inspiration from the writings may be acognitive and noninstitutional.

The use of the terms *truth*, *Truth*, *truthful*, and so on, is bewildering in Gandhi’s speeches and writings, but this has to be expected considering the incompatibility of his aims both to be understandable to everybody and to convey deep thoughts inspired by complex metaphysical views. He studied Hindu philosophical works throughout his life, and his terminology in part reflects that reading. We cannot, however, expect a high level of doctrinal consistency. He was not a professional philosopher and claimed no profound erudition. Further, he tried in his speeches to be at once a preacher, an agitator, a politician, and also a reliable informer of facts. This furnishes one more reason for not worrying too much about inconsistencies on the purely verbal, cognitive plane. In what follows, we shall present the reader

with some of Gandhi's most important sayings relating to truth (in various meanings), starting with the relation between God and Truth.

Vast metaphysical or theological jungles may grow from words uttered without the slightest attention to meaning, whether metaphysical, philosophical, or scientific. To educate oneself in nonviolence, one must keep this in mind when reading Gandhi's exhortations. Consider these two pieces of autobiography touching the key terms *God* and *Truth*:

When a child, my nurse taught me to repeat Ramanama whenever I felt afraid or miserable, and it has been second nature with me with growing knowledge and advancing years.

(*Harijan* 17.8.1934: 231; quoted in Prabhu and Rao 1967: 80)

Though my reason and heart long ago realized the highest attribute and name of God as Truth, I recognize Truth by the name of Rama. In the darkest hour of my trial, that one name has saved me and is still saving me.

(*Harijan* 18.3.1933: 6; quoted in Prabhu and Rao 1967: 80)

The use of language exemplified by the repetition of *Rāmanāma* is central in religious incantations. Incidentally, *Rāma* was the only word Gandhi uttered when he was assassinated. To say it means or names God, a metaphysical entity, or that it signifies Truth, is misleading.

Truth and God

I claim to know millions. All the 24 hours of the day I am with them. They are my first care and last, because I recognize no God except the God that is to be found in the hearts of the dumb millions. They do not recognize His presence; I do. And I worship the God that is Truth or Truth which is God through the service of these millions.

(*Harijan* 11.3.1939: 44)

We believe—and I think it is the truth—that God has as many names as there are creatures and, therefore, we also say that God is nameless and since God has many forms we also consider him formless, and since He speaks to us through many tongues we consider Him to be speechless and so on. . . . I would say with those who say God is Love, God is Love. But deep down in me I used to say that though God may be Love, God is Truth, above all. . . . But two years ago I went a step further and said that Truth is God. You will see the fine distinction between the two statements, viz. that God is Truth and Truth is God.

(Quoted in Gandhi 1961, vol. 1: 10–11)⁴

The meaning of these statements becomes clearer if we compare them with the following passage, in which Gandhi says that he *worships* God as Truth only. Insofar as God is proclaimed to be something beyond or apart from Truth, Gandhi does not worship God:

There are innumerable definitions of God, because His manifestations are innumerable. They overwhelm me with wonder and awe and for a moment stun me. But I worship God as Truth only. I have not yet found Him, but I am seeking after Him. I am prepared to sacrifice the things dearest to me in pursuit of this quest. (Gandhi 1948: 6)

Philosophically, Gandhi here may be said to illustrate a conception of an immanent, not transcendent, God. There are as many definitions of God as there are manifestations. God is nothing apart from the particular creations, so he has “as many names as there are creatures” (*Young India* 31.12.1931; quoted in Prabhu and Rao 1967: 51). These are “his” manifestations, but not manifestations of something beyond or behind the creatures themselves. We may compare these formulations with Spinoza’s saying that individual beings are varieties of expressions of (the immanent) God. However, one should refrain from trying to pin down Gandhi’s utterances concerning God to any definite theological or philosophical conception.

Five Components of Gandhi’s Use of the Term Truth

Gandhi’s conception of Truth — with a capital *T* — may be said to have as many as five components, at least one of which is alive or operative in any definite occurrence of the term. Only in rare cases are all five components operative.

The first component is *ontological* and stems from the metaphysical identification of *truth* with “what really is,” “what can be said really to be, in the most exacting sense of being.” Gandhi refers in this connection to the meaning of the Sanskrit word *sat*,⁵ and he subscribes to the view that what undergoes change and has a component of passivity (being acted upon) has an inferior way of being.

A second component is *epistemological*. We all speak about beliefs and assertions being true if and only if they correspond with reality or the facts. *Factual correctness* is another term for truth in this sense. We may also use a

formula: “*S*” is true if and only if *S*, where “*S*” stands for a verbal expression of a belief or assertion.

There is also a *personological* component, *true* being another word for truthful, honest, genuine, and faithful as predicated of persons. The term *personological* is used instead of the more usual *psychological*, because the question “What is a person?” should be taken as a question more comprehensive than any question subsumable under a science of psychology. Truthfulness, genuineness, authenticity, and openness are today terms of psychological *and* metaphysical import. Gandhi sometimes uses *true* for a rather general concept of genuine, for example, “That economics is untrue which ignores or disregards moral values” (*Young India* 26.10.1924: 421; quoted in Prabhu and Rao 1967: 263).

A fourth component is *pragmatic*. Here Truth is identified with consistently acting selflessly (and therefore with consistent *abimsā*). Finally, there is a *religious* component, in which “the Truth” is used in the sense of the true Faith. These components are interwoven in many and sometimes obscure ways. Here we shall limit ourselves to a recommendation to remember the five ingredients when interpreting the expressions *true*, *truth*, *Truth*, and so on in Gandhi’s writings.⁶

In Gandhi’s terminology, it is perfectly justifiable to ask whether it is true or not true that such-and-such things ought to or should be done. What we often formulate as questions about what is right, good, or correct, Gandhi mostly discussed in terms of what is true. Thus if he says that what is true for one person may not be true for another, we might rather say that what is right for one person to do may not be right for another.

Being an objectivist in ethics, Gandhi also applies the epistemological truth concept in reference to norms, prescriptions, and imperatives. They too may be true or false. This objectivism is well exemplified in quotations below. Gandhi has much to say on the criterion of truth, that is, on how we get to know the truth, stressing this question when it applies to prescriptions.

Truth “is what the voice within tells you” (*Young India* 31.12.1931: 427), but this formulation of the criterion is a crude simplification. The voice within must be cultivated by training of various sorts. However, even then, in spite of earnest, prolonged seeking, different individuals’ inner voices may be in conflict.

How do we decide then? Do we, notwithstanding this situation, have a single criterion? Gandhi at this point, like the Sceptics in their argumenta-

tion against the Stoics, argues against the existence of infallible criteria. There is no guarantee that we find the truth in any matter. However, continued selfless devotion in search of truth will make the seeker aware of errors and thus lead him toward truth.

Fallibility, Pluralism, and Scepticism (Zeteticism)

Terrifying internal conflicts in India culminated in 1947 with the creation of two hostile states threatening each other with military invasion. The tragedy has as its metaphysical background the rejection of Gandhi's insistence on fallibility of judgment, the belief in historical necessity, and the deadly grip of a self-righteous refusal to reexamine conclusions.

Some quotations will make Gandhi's thinking on these issues clearer:

Sacrifice of the lives of others cannot be justified on grounds of necessity, for it is impossible to prove necessity. . . . One good reason for non-violence is our fallible judgment. The inquisitors implicitly believed in the righteousness of their deeds, but we now know that they were wholly wrong.

(*Young India* 21.5.1925)

It [*satyāgraha*] excludes the use of violence because man is not capable of knowing the absolute truth and, therefore, not competent to punish.

(*Young India* 23.3.1921)

The golden rule of conduct . . . is mutual toleration, seeing that we will never all think alike and we shall always see Truth in fragment and from different angles of vision. Conscience is not the same thing for all. Whilst, therefore, it is a good guide for individual conduct, imposition of that conduct upon all will be an insufferable interference with everybody's freedom of conscience.

(*Young India* 23.9.1926; quoted in Prabhu and Rao 1967: 420)⁷

Gandhi believes in the plurality, not the relativity, of conscience. The difference is fundamental. If some say "There is but one color, red," and I oppose this dictum by saying that there are a variety of widely different colors, I am not submitting to a "relativism of color perception." I have asserted plurality, not relativity. Similarly, in an ethically relevant situation, the dictum of conscience is not one in content, but a spectrum of distinct, often opposite, dicta. What a person asserts to be the only correct way of acting according to conscience Gandhi takes to be an expression of opinion. The truth of an as-

sertion of the kind “The only correct way to act is so and so” may be untestable from a practical standpoint, because my conscience dictates to me as an individual, not to mankind in general.

What . . . is Truth?

A difficult question . . . but I have solved it for myself by saying that it is what the voice within tells you. How, then, you ask, [do] different people think of different and contrary truths? Well, seeing that the human mind works through innumerable media and that the evolution of the human mind is not the same for all, it follows that what may be truth for one may be untruth for another, and hence those who have made these experiments have come to the conclusion that there are certain conditions to be observed in making those experiments. Just as for conducting scientific experiments there is an indispensable scientific course of instruction, in the same way strict preliminary discipline is necessary to qualify a person to make experiments in the spiritual realm. Everyone should, therefore, realize his limitations before he speaks of his inner voice. (Young India 31.12.1931: 428)

The inner voice is supreme as source, but the need for its purification (*brahmacarya*) is unlimited. The direction of its impulses may differ radically according to differences in past experiences and the internal and external situation. Gandhi thus has a short but forceful formula for explaining the source of an inescapable pluralism of views in ethics, politics, and all other realms in which human minds turn against each other. It is clear that Gandhi’s conception of antagonisms as springing from plural, contradictory views is radically different from a conception in which different views stem from faults, negligence of clear truth, evil intentions, and so forth. Consequently, efforts to eliminate antagonisms will also differ from those conceived as crusades against wicked people. What may be truth for one may be untruth for another.

The mind of the social reformer or revolutionary has, of course, also gone through a definite evolution and works through definite media; there is therefore need for preliminary investigations and soul searchings before entering a conflict. This in turn presupposes mental discipline.

But how is one to realize this Truth, which may be likened to the philosopher’s stone or the cow of plenty? By single-minded devotion [*abhyasa*] and indifference to all other interests in life [*vairagya*]—replies the Bhagavadgita. In spite, however, of such devotion, what may appear as truth to one person will often appear as untruth to another person. But that need not worry the

seeker. Where there is honest effort, it will be realized that what appear to be different truths are like the countless and apparently different leaves of the same tree. Does not God Himself appear to different individuals in different aspects? Yet we know that He is one. But Truth is the right designation of God. Hence there is nothing wrong in everyone following Truth according to his lights. Indeed it is a duty to do so. . . . (Gandhi 1957: chap. 1)

In such selfless search for Truth nobody can lose his bearings for long. Directly he takes to the wrong path, he stumbles and is thus redirected to the right path. Therefore the pursuit of Truth is true *bhakti* [devotion]. It is the path that leads to God. (Ibid.)

According to the Bhagavad Gita, each person has a definite path to pursue (*svadharma*, *svamārga*). It may eventually lead two persons or groups to kill each other. The main thing is to follow or express what one is convinced is the truth. Loss of bearings is not loss of insight in one truth common to all, but a person's insincerity or weakness in pursuing the truth according to "his lights." The disagreement with others need not worry the seeker.

Disagreement may persist, and has persisted, in spite of immense efforts to reach agreement. If, therefore, a successful search for Truth implied arriving at one opinion—one ethical, political, or religious conception—there would be few examples of success. If, however, it means searching for and following one's own light, the inner voice, success according to Gandhi is normal, provided the search is intense and persistent.

God is, because Truth is. We embark upon the search because we believe that there is Truth and that it can be found by diligent search and meticulous observance of the well-known and well-tried rules of the search. There is no record in history of the failure of such search. (*Harijan* 21.9.1934)

In order to be consistent with the frequent sayings of Gandhi that he is always on the way to and has never entirely reached Truth, the above use of *Truth* may be interpreted in the direction of truthful, trusting action in accordance with one's conscience or, in Kierkegaard's terms, as subjective truth, truth for me. "[M]an, a finite being, cannot know absolute truth" (*Harijan* 7.4.1946: 70; quoted in Prabhu and Rao 1967: 45). "Relative truth is all we know. Therefore we can only follow the truth as we see it" (*Harijan* 2.6.1946: 167; quoted in Prabhu and Rao 1967: 45).

What is true to me, my path, is not invariable, and fallibility also covers personal truth. Therefore your opponent is not only a potential follower of you, but you are also a potential follower of your opponent. There is no ending to this except death. The Gandhi scholar has expressed this point very well:

Never once, during my lifelong association with him did I hear from his lips an uncharitable expression or a harsh judgment about any of his opponents, critics or even maligners. It was not forgiveness but whole-hearted acceptance on his part of their standpoint as *their* truth, which might one day become also *his* truth.⁸

(Pyarelal 1956, vol 1: 10)

Gandhi sometimes accepts the norm “Forgive!” but strictly speaking, his theory of fallibility is such that one cannot know who ultimately should forgive whom.

It has sometimes been maintained that Gandhi held his own judgment to be infallible. On many occasions, certainly, he was stubborn, and even to very devout students he seemed not always to have admitted errors or inconsistencies. (He once paradoxically even made a virtue of inconsistency, but he was then clearly thinking of “inconsistency” in the sense of maintaining one conclusion at a certain date and a different conclusion on the same subject at an earlier or later date. This is, however, merely change of opinion and not inconsistency in the usual logical sense.)

On the whole, Gandhi showed a willingness to learn and to change his opinion when evidence seemed to him to require it. There is a wealth of interesting material supporting this in the annals of arbitration and, of course, also in the history of campaigns. Thus he first concluded that students should leave colleges to join campaigns of liberation, then later concluded that they should stay (being of more help when properly educated).

Another example: In May 1942, Gandhi announced that the British must go, must withdraw their troops from India immediately. However, in June, he changed his fallible opinion.

Abrupt withdrawals of the Allied troops might result in Japan’s occupation of India and China’s sure fall. I had not the remotest idea of any such catastrophe resulting from my action. Therefore, I feel that if, in spite of the acceptance of my proposal [to liberate India] it is deemed necessary by the Allies to remain in India to prevent Japanese occupation, they should do so. . . .

(Fischer 1943: 114–15)

In this instance Gandhi admitted his weak judgment, his failure to consider possible consequences of an action, and he reversed his opinion. More famous is the mistake he called his “Himalayan miscalculation”:

I am a humble but very earnest seeker after Truth. And in my search, I take all fellow-seekers in uttermost confidence so that I may know my mistakes and correct them. I confess that I have often erred in my estimates and judgments. As for instance, whereas I thought from insufficient data that the people of Kheda were ready for civil disobedience, I suddenly discovered that I had committed a Himalayan miscalculation and saw that they could not offer civil disobedience inasmuch as they had not known what it was to tender willing obedience to laws which might be even considered irksome but not immoral. Immediately I made the discovery, I retraced my steps. A similar error of judgment was committed by me when I represented what has been described as the Bardoli ultimatum. . . .

(*Young India* 21.4.1927; quoted in Gandhi 1961, vol. 2: 13)

But I am not aware of having changed my opinion about the necessity of killing certain dangerous animals in certain circumstances specifically mentioned in my articles. So far as I am aware of my own opinions, I have ever held the opinion expressed by me in those articles. That however does not mean that the opinion is unchangeable. I claim to have no infallible guidance or inspiration.

(Ibid.)

These quotations from Gandhi’s own writings and speeches might be summed up in the following way: it is ethically unjustifiable to injure an opponent if it is not verified that he is wrong and you are right. Now, it is always more or less unverifiable that he is wrong and you are right. Therefore, it is always unjustifiable to injure an opponent.

The carrying out of *satyāgraha* sometimes led to the injury of opponents. Even if this injury was unintentional, the *satyāgrahin* would, according to the above view, incur guilt. Gandhi did indeed feel that guilt.

The fallibility arguments quoted from Gandhi suggest that an agent might be justified in using violent means in a struggle, namely, when the agent knows with absolute certainty that he is right in both the norms and the hypotheses that form the basis of his decision to commit violence. It so happens, however, that all human beings are, and perhaps must be, incapable of *knowing* with perfect certainty. Nonetheless, Gandhi does seem to acknowledge that if knowing with perfect certainty were possible, then violence would in some cases be ethically justifiable.

These reflections show clearly that scepticism of the kind expressed by Gandhi is not sufficient to derive norms of nonviolence. Something must be added—for instance, the position that ultimately all life is one—so that the injury of one’s opponent becomes also an injury to oneself. Nothing would then be gained by violence even if one had the means to ascertain facts and justice absolutely.

The most highly developed philosophical scepticism is not that which denies the possibility of arriving at truth or knowledge, but the scepticism of Pyrrho, which requires the maintaining of a basic attitude of abstinence from final theoretical judgment (Zeteticism, zetetic Pyrrhonism). This *epoché*, or suspension of judgment, is consistent with action because theoretical certainty is not a necessary condition of action, even of forceful action. For Gandhi, similar views play a fundamental role in the ethical justification of nonviolence: how can we justify killing if, perhaps, our antagonist is nearer the truth than we are, or if there are two ways of seeing the matter?

Only God knows the whole truth, but since God is Truth, we arrive at the somewhat strange formulation “Only Truth knows the whole truth.” Gandhi comes close to such forms of expression:

The whole truth is only embodied within the heart of that Great Power—Truth. I was taught from my early days to regard Truth as un-approachable—something that one cannot reach. A great Englishman taught me to believe that God is unknowable. He is knowable, but knowable only to the extent that our limited intellect allows.

(*Harijan* 7.4.1947: 109; quoted in Prabhu and Rao 1967: 73)

In the light of the foregoing, it is not surprising that Gandhi characterized himself as a sceptic, an *anekāntavādin* (*Young India* 21.1.1926: 30). This complex term may be analysed into *an-eka-anta-vad-in*, a person who holds that there is more than one end, that is, more than one conclusion. It is an apt term for the ultimate pluralism of religious, moral, and political views compatible with human experience and reflection. Any human view is fragmentary and uncertain.

Gandhi read the Bhagavad Gita constantly and found in it the best support for nonviolence. He was also quite aware that opposite interpretations were possible. He recognized that he might well be killed by people who found it their duty, based on faith in the teachings of the same holy poem,

to kill a traitor. And to certain sects of Hinduism, because of his support of the Muslim minority, Gandhi was indeed the great traitor.

One of the two men sentenced to death in connection with Gandhi's murder in January 1948 was Nathuram Godse. "Godse had made a study of Bhagavadgita and knew most of its verses by heart. He liked to quote them to justify acts of violence in pursuing a righteous aim" (Khosla 1963: 218). Gandhi was in touch with these people and supported their claim to follow their conscience and their honest interpretation of the Bhagavad Gita.

After the first unsuccessful attempt on his life, Gandhi said at his prayer meeting:

[N]o one should look down upon the misguided youth who had thrown the bomb. [The youth] probably looked upon the speaker as an enemy of Hinduism. After all, had not the Gita said that whenever there was an evil-minded person damaging religion, God sent some one to put an end to his life?

(Tendulkar 1951–54, vol. 8: 331)

This is one of the clearest examples of Gandhi's belief in the plurality of incompatible views based on the voice of conscience. He would insist both that Truth was one and that men would never see it in the same way; and that we must accordingly live with irremediable conflicts and not take for granted that some dominant view comes nearer to the Truth than a minority view.

Truth, God, and Self-Realization

The Trinity of Realizations

We have started with an elucidation of Gandhi's use of the term *truth* and related terms. Search for Truth may be viewed as a fundamental principle or prescription in Gandhi's ethics. It is, however, inseparably connected with his conception of God, self-realization, and a variety of other central terms in Indian thought. Being a man of action and no great admirer of purely speculative thought, Gandhi introduces a simplification into traditional Indian metaphysics that is well worth mentioning. The way in which he does this shows a firm grasp of pragmatic thinking: "*To realize God,*" "*to realize the Self,*" and "*to realize Truth*" are three expressions for the same

development. “To realize God” is another expression for “to become like God” and “to face God.” The identification of this development with that of self-realization is clearly stated in, for instance, Gandhi’s highly interesting and original interpretation of the Bhagavad Gita:

Man is not at peace with himself till he has become like unto God. The endeavour to reach this state is the supreme, the only ambition worth having. And this is self-realization. This self-realization is the subject of the *Gita*, as it is of all scriptures. But its author surely did not write it to establish that doctrine. The object of the *Gita* appears to one to be that of showing the most excellent way to attain self-realization. That which is to be found, more or less clearly, spread out here and there in Hindu religious books, has been brought out in the clearest possible language in the *Gita* even at the risk of repetition.
(Desai 1946: 128–29)

The following excerpts support the same identification, and also simplify matters by adding the link to “liberation” (*mokṣa*, *mukṭi*).

What I want to achieve,— what I have been striving and pining to achieve these thirty years,— is self-realization, to see God face to face, to attain *Moksha*. I live and move and have my being in pursuit of that goal. All that I do by way of speaking and writing, and all my ventures in the political field, are directed to this same end!
(Gandhi 1927, vol. 1: xiv)

The denotational or extensional (not necessarily intentional or connotational) identity of “to find Truth”—if this is the same as “to realize Truth”—and “to become perfect” is plain from the following famous passage:

I am but a seeker after Truth. I claim to have found a way to it. I claim to be making a ceaseless effort to find it. But I admit that I have not yet found it. To find Truth completely is to realize oneself and one’s destiny, oneself to become perfect. I am painfully conscious of my imperfections, and therein lies all the strength I possess, because it is a rare thing for a man to know his own limitations.
(*Young India* 17.11.1921)

The Devotion of a Karmayogin

The practical aspect of the development is seen from Gandhi’s stress on action, his life as a *karmayogin*, a yogi of social action:

I do not know whether I am a Karmayogi or any other Yogi. I know that I cannot live without work. I crave to die with my hand at the spinning wheel. If one has to establish communion with God through some means, why not through the spinning wheel? "Him who worships me," says the Lord in the Gita, "I guide along the right path and see to his needs." My god is myriad-formed, and while sometimes I see Him in the spinning wheel, at other times I see Him in communal unity, then again in removal of untouchability, and that is how I establish communion with Him according as the Spirit moves me.

(*Harijan* 8.5.1937)⁹

In other words, the way of the Bhagavad Gita, the way of selfless action, is not a way leading up to a direct confrontation with God; it is itself the confrontation, provided the selflessness is consistent.

The same kind of pragmatic interpretation Gandhi attaches to the central notion of devotion:

A devotee may use, if he likes, rosaries, forehead marks, make offerings, but these things are no test for his devotion. He is the devotee who is jealous of none, who is a fount of mercy, who is without egotism, who is selfless. . . . We thus see that to be a real devotee is to realize oneself. Self-realization is not something apart.

(Desai 1946: 130)

In short, Gandhi identifies "to be maximally devoted" (or in his own words, "to be a real devotee")¹⁰ with "to live the life of selfless action," and as this is to face God, other pragmatic interpretations follow.

The expression "to be a real devotee," however, is apt to mislead a Western reader unfamiliar with Indian philosophy. The devotion is intimately connected with detachment. In most Western philosophy, the latter is associated with aloofness and indifference. The extreme detachment that Gandhi tried to develop throughout his life, however, is not aloofness. A central expression of this detachment is "indifference to the enjoyment of the fruits of action whether in this or in a future life" (Sanskrit: *ihāmutrārthaphalabhogavirāga*, here-and-yonder-action-fruit-enjoyment-indifference). We have a norm resembling this in Christianity, namely, "You shall not have regard for the fruits of your action." In Indian philosophy, detachment in this sense is intimately connected with political philosophy through the conception of active inaction. Perhaps the most important aspect of such detachment is a certain lack of regard for past failures that allows them to not

be viewed as determinants of future conduct or achievements. “Detachment enables one to overcome the effects of past faulty practice as well as handicaps of heredity and environment” (*Harijan* 7.4.1946: 72; quoted in Prabhu and Rao 1967: 463).

As Gandhi sees it, the importance of the combination of devotion and detachment is not to be underestimated: “A burning passion coupled with absolute detachment is the key to all success” (*Harijan* 29.9.1946: 336; quoted in Prabhu and Rao 1967: 464). Sometimes, however, Gandhi uses the term *passion* in such a way that every passion is by definition a passion *for the fruit of an action*. If passion is conceived in this way, then, detachment implies an absence of passion because the term *passion* includes passion for the fruit of an action.

To attain to perfect purity one has to become absolutely passion-free in thought, speech and action; to rise above the opposing currents of love and hatred, attachment and repulsion. (Gandhi 1948: 616)

The maximal development of detached passion and of devotion that springs from an identification with the universal Self is named *nirvāṇa* in some *ma-bhāyāna* Buddhist philosophies (Shcherbaskoi 1965). Although Gandhi was no philosopher, his thinking is nevertheless inspired by classical Indian philosophy.

From the above quotations and interpretations, it follows that according to Gandhi, the supreme intersubjective and intercultural goal of each individual is self-realization. Without some kind of concept of a self, however, the notion of a search for truth (in the epistemological and the ethical sense) becomes unintelligible. There must be someone who seeks and there must be something that he seeks.

The Self of Egotism and the Universal Self

Humility, Egotism, and Self-Realization

The term *humility* is used in many important connections in Gandhian writings, and not only to express “lack of arrogance or pride.” One sense seems relatively clear and acceptable to persons with different ideological backgrounds: a person lacks humility to the extent that he suffers from egotism (self-conceit). By “shedding the ego,” one then means shedding the

egotism. To reduce oneself to zero — a phrase often used by Gandhi — is accordingly to be understood as reducing the egotism-self to zero, that is, to eliminate it.

We prefer the expression “shedding the egotism” to “shedding the ego,” because the latter expression suggests a weakening of the resourcefulness or individuality of a person. The individual is “the supreme consideration” according to Gandhi, and certainly he should not be “shed.”

Egotism in the sense of self-conceit is present when, for instance, one is too proud and self-important to confess one’s errors, to retrace one’s steps. Without retracing steps, or learning from painful errors, however, one cannot find the truth, or at a minimum, the speed of the process is reduced indefinitely. It is understandable, therefore, that Gandhi maintains a good deal of humility (in the sense above).

One also has the duty to give advice or tell the truth even if it sounds arrogant, and therefore Gandhi frequently uses the phrase “in all humility.” It might mean something like “without pretending that I am more able than any other to tell what is true” or “without superiority or self-righteousness.”

The injunction to seek and follow truth results in fanaticism and violence only when the person who accepts the injunction has some form of superiority complex. One would not expect such a person, once he believes he has found the truth, to refrain from the oppression of deviants — for racial or other reasons. In fact, being nonviolent cannot really be regarded as an isolated trait, whether psychological or social. It must be studied as an aspect of a set of traits. This is clear from the way nonviolence is treated in the Bhagavad Gita; that is, as one virtue among others.

Gandhi finds support for his opinion that humility is necessary for truth-finding in the Bhagavad Gita, discourse 13, verse 7. He believes the virtues there listed to be conditions of insight, or even somehow aspects of it. He takes “freedom from pride and pretentiousness” to be equivalent to humility.

Here are two translations of verse 7:

Freedom from pride (*amānitva*) and pretentiousness, nonviolence (*ahiṃsā*), forgiveness, uprightness, service of the Master, purity, steadfastness, self-restraint (*ātma-vinigraha*).
(Translation by Gandhi)

Absence of pride and deceit, nonviolence, patience uprightness, service of a teacher, purity, steadfastness, self-control.
(Mascaró 1962)

In his commentary, Nataraja Guru says that *amānitva* (freedom from conventional pride) belongs “to a source different from society.” “A man concerned with his emancipation or self-realization is hardly concerned with what society thinks of him” (Guru 1961: 545–46).

Radhakrishnan says in his commentary:

It is clear from this list of qualities that jñāna or knowledge includes the practice of the moral virtues. Mere theoretical learning will not do. By the development of moral qualities the light of the ever changeless Self witnessing all but attached to none is discriminated from the passing forms and is no more confused with them.
(*Bhagavadgita* 1956: 305)

The gist of the matter is that there is something called “self” (*ātman*) that should be and can be reduced toward zero and something very different from this that should be and can be realized or cultivated maximally — and which is also called “self.” The latter, however, is mostly written with a capital *S*.

When the egotism-ego vanishes, something else grows, that ingredient of the person that tends to identify itself with God, with humanity, with all that lives. Therefore Gandhi may also say that once the reduction of one’s egotism-self is complete, one comes face to face with God, finds Truth, and realizes the universal self, the Self. The way of humility is essentially the way of reducing egotism.

There are other senses of *humility*, or other parts of a doctrine of humility. However, they seem more difficult to incorporate into a fairly generally acceptable ethics of group struggle. Thus, for Gandhi to have placed himself last among his fellow creatures would likely have taken unreasonable steps. Eating as little as the starving, or traveling as slow, would have rendered it impossible for Gandhi to fulfill his obligations. It was a duty, considering the importance of his work, to take care of himself more than many others and to enjoy many privileges. One may, of course, say that all this is consistent with placing oneself last among one’s fellow creatures — but only with considerable arbitrariness, it seems. Gandhi says that he will try to reach perfection even though he grants that no one has as yet reached it, and he thinks that he has practiced nonviolence more and longer than others just as he thinks he has a special or unique mission in India. In this and other respects, it is clear that Gandhi places himself before many others. However, we should not take this more or less realistic assessment of

the importance of his own personality to express a lack of humility. In what follows, therefore, we shall continue to interpret *humility* in the direction of “lack of self-conceit, egotism, or pride.”

Much of Gandhi’s activity, for instance in his campaigns in favor of higher wages for poor laborers, is directed toward a kind of egalitarian justice. It does not in any direct way aim at increasing the self-realization of the laborers in terms of their diminishing egotism. It must be taken for granted that what the poor laborers themselves, and other underdog groups, looked forward to reaching by victorious campaigns were goals acceptable to Gandhi, or at least not repugnant to him. Our conclusion, then, is that there are stages or phases on the way leading to maximal realization of the Self when it is justified or even necessary to fight against exploitation by others. Submission or self-extinction is no virtue. It is the submission and extinction of egotism that Gandhi proclaims.

What Gandhi accepted as goals for his campaigns can be subsumed under the heading of “self-realization,” in empirical, social scientific senses — and can include self-government in political science terminology. He wishes to contribute to *svarāj*, a set of conditions not directly defined by or correlated with absence of egotism. The modern Indian *svarāj* (anglicized to *swaraj*) derives from the Sanskrit *svarājan*, self-rule, self-command, lordship of the Self. Some of its connotations are not far from those of “self-realization.”

This concern of Gandhi for self-realization in the mundane empirical sense does not contradict his concern for realizing the big or universal Self, that is, for Self-realization. He seems to believe that increases in self-realization (in the empirical senses), insofar as they do not involve an increase in egotism, are favorable to the condition of Self-realization in the ethico-metaphysical sense. Such increases are neither necessary conditions for Self-realization nor sufficient, but favorable for the development of a personality adapted to the task of reduction of egotism. Not all goals are subservient to the fight against egotism — Gandhi was a man of many joys.

The Universal Self

In order to understand nonviolence as perfected by Gandhi and others, it is imperative to understand how *selfless* action is compatible with complete *self*-realization of the individual person. How can Gandhi say that to make oneself a zero is to realize oneself completely?

The answer, as suggested in the previous section, is that self-realization is conceived by Gandhi, together with a whole tradition of thinkers in the West as well as the East, as realizing not “oneself,” but “the Self.” This makes it necessary for us to elaborate on the concept of Self with a capital *S*. Its position in metaphysics is described well by the Indologist H. Zimmer:

The supreme and characteristic achievement of the Brahman mind (and this has been decisive, not only for the course of Indian philosophy, but also for the history of Indian civilization) was its discovery of the Self (ātman) as an independent, imperishable entity, underlying the conscious personality and bodily frame. Everything that we normally know and express about ourselves belongs to the sphere of change, the sphere of time and space, but this Self (ātman) is forever changeless, beyond time, beyond space and the veiling net of causality, beyond measure, beyond the dominion of the eye. (Zimmer 1961: 3)

Gandhi’s thought when approaching philosophical questions is close to that of Advaita Vedānta. In this system, the word closest to the meaning of *self* (with a small *s*) is *jīva*; to that of *Self* (with a capital *S*) is *Ātman* (with a capital *A*); to *God* in the writings of Gandhi, *Brahman*.¹¹ In his monograph on conceptions of self, Troy W. Organ says:

Liberation or salvation in Advaita Vedānta is self-realization. The process of liberation will usually begin when a person becomes disgusted with worldly life. At last there dawns upon a person the conviction that in his egoistic restlessness and clinging passions he is not moving in the direction of his highest values. He follows the path of self-knowledge until he attains a direct grasp of the unreality of the qualities of finitude and separation of the *jīva* and of the reality of infinitude and unity of *Ātman*. (Organ 1964: 109)¹²

It is characteristic of Gandhi as a *karmayogin* that he conceives the path of self-knowledge as the path of selfless action. That is, the discrimination between self and Self is fostered by reducing egotism toward zero — serving the suffering masses or in other ways as required by the social conditions confronting the yogin.

This makes it important to know how the Self (*Ātman*) is related to God and Truth. At this point, Gandhi may safely adhere to tradition: the Self somehow reveals itself both as God (*Brahman* in the old Indian tradition) and as Truth (*Sat*). Thus, there is no need for subtle differentiations so long as we follow Gandhi’s thinking. Self as *Ātman* corresponds to the notion of

the Absolute in Western thinking — something completely beyond ordinary description but somehow basic both to God and the World.

The Supreme Conceptual Bridge: From “Truth,” “self,” “Self,” and “Egotism” over “Essential Unity of Humanity” to “Nonviolence”

In conclusion, we may say that the self referred to in Gandhi’s term *self-realization* is the *Ātman*, what might be termed “the universal Self,” or “the great Self.” The self as an object of study in psychology and social science we might, in contrast to *Ātman*, call “the small self.” For the purposes of our systematization, we shall distinguish two components, the egotism and the nonegotism component of the small self. When reducing the egotism component toward zero, the faculty of orientation in the empirical world is not adversely affected. On the contrary, its functioning is perfected because pride (the main part of egotism) is an obstacle to truth seeking. The egotism-ego is therefore not the whole empirical self, but that component Gandhi has in mind when he says that we must reduce “ourself” to zero.

The metaphysics of Gandhi is such that he might insist, as he certainly suggests, that the process of reducing egotism to zero involves in practice (if not in theory) a process of understanding oneself and that in completing the process, one reaches complete self-realization (and thus “sees God face to face”). Thus, according to this branch or part of Gandhi’s metaphysics, reducing one’s own egotism to zero is a sufficient condition for complete self-realization. Degrees of self-realization and degrees of reduction of egotism may accordingly be taken to be the same. The world as seen by the increasingly self-realized person will be the world as seen by the decreasingly egoistic person. In order not to get into unnecessary metaphysical controversies, one may hold these equivalences to be extensional, not conceptual.

With increasing power of discrimination between self and Self, the universality of the Self is discerned. This leads to the conception of the essential oneness of all humanity. “I believe in the essential unity of man and for that matter of all that lives” (*Young India* 4.12.1924: 398; quoted in Prabhu and Rao 1967: 439). One’s own self-realization must therefore somehow include that of others. The requirement of helping the self-realization of others, “service,” and hurting no one, follows without further assumptions. The central place of this unity is well described by Pyarelal:

The rockbottom foundation of the technique for achieving the power of non-violence is belief in the essential oneness of all life. . . . The achievement of soul force depends on re-establishing our unity consciously with all psyches which manifestly exist beneath the threshold of individual consciousness and communicating that experience to others. (Pyarelal 1956–58, vol. 2: 792)

From causes of a psychological, social, and other kinds that are as yet little known, not a few people, from their earliest youth, perceive, apperceive, or feel a basic unity with and of all the human beings they encounter, a unity that overrides all the differences and makes these appear superficial. Gandhi was one of these fortunate people:

I have known no distinction between relatives and strangers, countrymen and foreigners, white and coloured, Hindus and Indians of other faiths, whether Musalmans, Parsis, Christians or Jews. . . . I cannot claim this as a special virtue, as it is in my very nature, rather than a result of any effort on my part, whereas in the case of *ahimsā* (non-violence), *brahmacharya* (celibacy), *aparigraha* (non-possession) and other cardinal virtues, I am fully conscious of a continuous striving for their cultivation.

(Gandhi 1948: 338; quoted in Prabhu and Rao 1967: 419)

To this may be added that people who have been haunted in their youth by a perception of their difference from others, of the essential hostility of strangers, suffer a formidable handicap. Service to mankind, nondiscrimination, and acceptance of extreme forms of egalitarianism are difficult to undertake or to tolerate when the basic perception of humanity is that of diversity and discord.

To facilitate the development of the feeling of kinship and unity must, according to the above, be a major concern of social policy. Thieves, to mention one example, should not be punished, according to Gandhi.

But whilst we may bear with the thieves, we may not endure the infliction. That would only induce cowardice. So we realize a further duty. Since we regard the thieves as our kith and kin, they must be made to realize the kinship. And so we must take pains to devise ways and means of winning them over. This is the path of *Ahimsā*. It may entail continuous suffering and the cultivation of endless patience.

(Gandhi 1957: chap. 2; quoted in Gandhi 1961, vol. 2: 26)

Also, one might add, it entails a decentralized society composed of small units — we must be able to get to know the thieves.

Such terms as “the universal Self” can scarcely be given experiential meaning without recourse to psychological and social processes of intense identification. They can be facilitated by the practice of yoga, but also by various kinds of voluntary social work as these are now carried out by dedicated people in many countries. The recent development in psychiatry and psychology favoring reciprocity in the therapist-patient relationship helps to make the identification easier.

There is an intimate relation between a belief in the ultimate oneness of all that lives and the belief that one cannot reach one’s own complete freedom without bringing about the freedom of others or remove all feelings of pain without relieving the pain of others.¹³

I do not believe . . . that an individual may gain spiritually and those who surround him suffer. I believe in *advaita* (non-duality), I believe in the essential unity of man and, for that matter, of all that lives. Therefore I believe that if one man gains spiritually, the whole world gains with him and, if one man falls, the whole world falls to that extent.

(*Young India* 4.12.1924: 398; quoted in Prabhu and Rao 1967: 439)

Gandhi’s tendency toward collectivism and egalitarianism is beautifully expressed in the following words:

A drop torn from the ocean perishes without doing any good. If it remains a part of the ocean, it shares the glory of carrying on its bosom a fleet of mighty ships.

(*Harijan* 23.3.1947: 78; quoted in Prabhu and Rao 1967: 440)

Synopsis

“To seek Truth” = to try to face God
= to try to realize the Self
= to try to reach salvation

Obstacle: Overpowering influence of sense impressions from which desires (infatuation) and egotisms arise. They hide the essential unity of one’s self with the universal Self and frustrate attempts at self-realization. Therefore:

“To try to realize the Self” = to try to act with detachment
= to try to act selflessly
= to act “without regard to the fruits of one’s action”

It involves trying to shed the egoistic component of the person.

On the other hand, the Self as “witness” in my person is the Self as “witness” in other persons. This is seen to the extent that the Self (i.e., its operation) is discriminated from the empirical self. The Self is seen as the essence of all persons, and self-realization, insofar as it involves the essence, involves self-realization of all. Therefore, a setback in self-realization or in the (material or spiritual) conditions of self-realization is a general setback for humanity. Hurting oneself is hurting others; hurting others is hurting oneself. Similarly, a gain is a general gain.

It remains to characterize selfless action: selfless action, if consistent, *is* being face to face with God, *is* actualizing the full essential identity with the Self, and *is* finding or embodying Truth. There is no transcendent God, Self, or Truth; they are immanent in the action. Furthermore, selfless action is action, intended to increase the general self-realization without special regard for any definite self, but starting with those who are worst off—the starving, exploited, subjected, and depressed.

Nonviolence

Himsā and Ahimsā: Broad and Narrow Concepts

The Sanskrit word *ahimsā* as applied in Indian philosophy has many meanings related in different ways to absence of violence, suppression, exploitation, and malevolence.

Occurrences of *ahimsā* in the Bhagavad Gita point to rather narrow concepts because the term is used for one single characteristic among a series of others. Compare, for instance, the enumeration of good qualities in discourse 13, verse 7, quoted on page 31. In this list, *ahimsā* occurs as one single good quality. It is not inappropriately rendered by “nonhurting,” “noninjuring,” “nonharming,” or “nonviolence,” but it requires a more specific meaning in relation to the other qualities. If a wider concept were intended, some of these others would only be parts or aspects of *ahimsā*, and it would be unnecessary or misleading to mention them on a par with it. Gandhi’s terminology is such that some of the other qualities listed would make up part of the connotation (intension) of *ahimsā*, while most of the others would be covered in its extension.

The general tendency in Gandhi's writings is toward equating *abhiṃsā* with all good qualities put together and *hiṃsā* with all bad ones. For example: because stealing is bad and nonstealing good, stealing tends to be taken to exemplify *hiṃsā* and nonstealing (as a principle), *abhiṃsā* (cf. p. 40). Several meanings may occur in the same paragraph: "It is not enough that there is no violence. A violent speech is often as injurious as a violent deed" (Tendulkar 1951–54, vol. 1: 331). In the first sentence, a narrow, physical concept is intended, a concept narrower than "injurious"—there are instances of injurious acts that are not violent. However, the adjective *violent* in "violent speech" has a different meaning. A violent speech is *not* taken to be a species of violence.

A taste of philology: *A-hiṃsā* is Sanskrit for absence of *hiṃsā*. The latter is correctly written *hiṃsā* or *hinsā* (harming, hurting, injuring) from the root *hiṃs* (harm, hurt, injure, slay). The word *hiṃ* may, in turn, have been a form of the verbal root *han*, which has a large number of meanings: strike, smite, slay, kill, destroy, dispel (darkness), and so forth. These meanings seem on the whole to be more predominantly physical than those of *hiṃs*.

Gandhi, in his application of the term, makes use of several of the meanings of *abhiṃsā*, and he adds at least two others: (1) *abhiṃsā* as a designation of his ethics of group struggle—in this sense, the term is a proper name for a doctrine or a closely related set of prescriptions and descriptions; (2) as a designation of actions or practice in accordance with *abhiṃsā* in the first sense.

Let us see what he himself says about the term:

Ahiṃsā means avoiding injury to anything on earth in thought, word, or deed.
(*Harijan* 7.9.1935: 234)

Adopting a wide interpretation of *injury*, the quotation exemplifies a very wide concept of *hiṃsā*: not avoiding injury to *at least one thing* on earth in thought, word, or deed. "Things" would include all living beings and perhaps also a selection of nonliving things. Destruction as part of sabotage is sometimes referred to as *hiṃsā* even if the things destroyed are not the property of anyone. To keep things we do not need, but which others might need is "injuring," that is, reducing certain chances that others may have for self-realization.

Non-stealing does not mean merely not to steal. To keep or take what one does not need is also stealing. And, of course, stealing is fraught with violence.

(Hingorani 1968: 5)

Under mental forms of injury, the wide interpretations include hurting people's feelings, hurting their dignity, and hurting relations between others or between others and oneself. The feelings and relations referred to must be positively valued. It would not be *himsā* if person *A* hurts the feelings of hatred harbored by person *B* or his own feelings of hatred toward *B*. Thus, the wide conception of *himsā* presupposes an ethics. Consequently, an adequate account of the notion of *himsā* implies an account of the ethics in which *himsā* is just one of many notions. As is usually the case in philosophical inquiry, we are led from consideration of a part to that of a total view.

As an example of a broad use of *himsā* (violence), the following is well known:

I cultivate the courage to die without killing, but for the man who does not have this courage I would wish him to cultivate the art of killing and being killed, rather than flee shamefully from danger. For he who runs away is guilty of mental violence: he flees because he has not the courage to be killed in killing.

(*Young India* 2.11.1920)

What the coward violates may be said to be a relation to himself, that of striving for self-realization. A more specific interpretation of the violence of the coward may be given, but our point here is mainly to establish that, used in the wide senses discussed here, the assertion "This is *himsā*!" does not say much more than "This is ethically bad!"

The concept of *ahimsā* made by negating the wide concept of *himsā* is correspondingly narrow. This has the important consequence that much is required of a struggle in order to be in accordance with *ahimsā*. The wider the concept of *himsā*, the narrower, of course, will be the corresponding concept of *ahimsā*. Considering the need for degrees of *ahimsā*, the narrow concept might be expressed by the term "perfect *ahimsā*." Such a grading is applied rather often by Gandhi. If we take "violence" and "non-violence" as conventional renderings of *himsā* and *ahimsā*, we will find that corresponding relations between the English words hold. In order to avoid misunderstanding, one might prefer to use the terms *nonviolence* and *nonviolent* without a hyphen to express high degrees of *ahimsā* — degrees required according

to the doctrine of *ahimsā*. The unhyphenated term *nonviolence* would then have a positive quality that is not well expressed by the simple negation, non-violence. Because this distinction would often not be noticed and because, unlike in Gandhi's era, contemporary usage eliminates the hyphen, even when communicating the simple negation, we shall not attempt to use the hyphen (or its absence) to make such distinctions.

It is sometimes useful to point out an ideal limit, however great or small the chances of reaching it. Gandhi may be said to refer to a "zero degree" of *himsā* and a "maximum degree" of *ahimsā*. Yet, he has made it amply clear that no one on this planet can help transgressing a norm expressible by "Avoid doing injury to anything in thought, word, or deed." The extension of the narrow concept as applied to persons is therefore strictly speaking zero — like the concept of an ideal gas or of "the economic man." As Gandhi points out:

Ahimsā means not to hurt any living creature by thought, word, or deed, even for the supposed benefit of that creature. To observe this principle fully is impossible for men, who kill a number of living beings large and small as they breathe or blink or till the land. (Gandhi 1961, vol. 2: 28)

It is not difficult to find instances in which Gandhi explicitly repudiates what he says here about *himsā* in relation to benefit. The following is a defense of euthanasia:

Non-violence sometimes calls upon us to put an end to the life of a living being. For instance a calf in the Ashram dairy was lame and had developed terrible sores; it could not eat and breathed with difficulty. After three days' argument with myself and my co-workers I had poison injected into its body and thus put an end to its life. That action was non-violent, because it was wholly unselfish inasmuch as the sole purpose was to achieve the calf's relief from pain. It was a surgical operation, and I should do exactly the same thing with my child, if he were in the same predicament. (Gandhi 1959: 44)

Much terrorism has perhaps been performed "wholly unselfishly," for instance, terrorism perpetrated by religious movements. Gandhi would not likely accept the postulate of unselfishness as sufficient for the qualification of nonviolence. Gandhi also subscribes to a graduated norm of minimizing *himsā*: to avoid as much as possible, and as often as possible, the injury of beings. Mostly, or perhaps always, he has living beings in mind, but recent

development of the movement against injury to nature may well find it adequate to subsume its basic norms under the above very general principle of *ahiṃsā*, either read as an imperative or as a valuation: it is of negative value to injure anything. This formulation conveniently points to the near vacuity of the principle as long as we do not explain how we define or would exemplify injury.

Another, still more severe conception:

[E]very act of injury to a living creature and endorsement of such an act by refraining from non-violent effort, whenever possible, to prevent it, is a breach of *ahiṃsā*.
(*Young India* 30.8.1928: 294)

This declaration so widens the concept as to make it an act of violence to *abstain* from efforts to prevent injurious acts, for instance, suppression, manipulation, and exploitation. Unjust societies are violent in this sense. Retreat to the dead regions of the Himalayas or the Antarctic does not avail: sitting there, you are violent if some preventable violence of the active or passive kind is taking place somewhere else. The width of the above conception depends on how widely we conceive the “possible”: you are violent if you do not prevent violence that it is possible for you to prevent. Taking “possible” in a wide sense, we get another zero-degree of *hiṃsā* and a maximum of *ahiṃsā*, useful as an indication of an ideal limit, but otherwise inapplicable.

When Gandhi, in his life as politician, declared that this or that was violence, he mostly had such narrower concepts of violence in mind. They must be placed somewhere between “crude malevolent physical violence” and “physical or mental injury, temporary or permanent.” What he had in mind in each instance cannot be found by looking at any definition or at general accounts of his views.

The study of the etymology or the various usages of *ahiṃsā* and the various concepts of *ahiṃsā* that Gandhi may have had in mind is of limited usefulness. It should not be neglected, but neither should it be taken to offer any key to the understanding of the immense complexity of Gandhi’s thought and action.

One may justifiably talk about “the political ethics of nonviolence (as conceived by Gandhi).” However, since Gandhi never attempted any systematization himself, his ethics can only be explicated in the form of a *hypothetical reconstruction*. If we consider the vast area of activity to which Gandhi

applied ethical valuations, it is not surprising that his ethics, if at all systematizable, must be immensely complex. There are no easy ways of deriving fairly concrete policies of action from the general and abstract, and often noncognitively expressed, basic rules or maxims of “nonviolence” as applied to political life. Gandhi himself clearly realized this difficulty:

There are problems of Truth, but it is not very hard to understand what Truth is. But in understanding Ahimsā we every now and then find ourselves out of our depth. Ahimsā was discussed in the Ashram at greater length than any other subject. Even now the question often arises whether a particular act is violent or non-violent. (Harijan 27.11.1949)

Some admirers of Gandhi insist that his ethics should not be systematized because no living ethics can be and because such an effect is foreign to his spirit. However, the intense and protracted discussion, favored by Gandhi himself, regarding whether this or that act is consistent with *ahimsā* furnishes a convincing refutation of the “irrationalists.” The important thing is to keep the pretensions of any rational reconstruction realistic, that is, at a rather modest level.

Gandhi on Nonviolence

After so much conceptual gymnastics, the reader ought to be rewarded by enlightening quotations from the Mahatma himself.¹⁴ They show the intended universal applicability, active character, and multifarious forms of nonviolence:

Ahimsā is not the crude thing it has been made to appear. Not to hurt any living thing is no doubt part of Ahimsā. But it is its least expression. The principle of Ahimsā is hurt by every evil thought, by undue haste, by lying, by hatred, by wishing ill to anybody. . . .

In its negative form, it means not injuring any living being whether by body or mind. I may not, therefore, hurt the person of any wrong-doer or bear any ill-will to him and so cause him mental suffering. This statement does not cover suffering caused to the wrong-doer by natural acts of mine which do not proceed from ill-will. It, therefore, does not prevent me from withdrawing from his presence a child whom he, we shall imagine, is about to strike. Indeed, the proper practise of Ahimsā requires me to withdraw the intended victim from the wrong-doer, if I am in any way whatsoever the guardian of such a child. . . .

Ahiṃsā really means that you may not offend anybody, you may not harbour an uncharitable thought even in connection with one who may consider himself to be your enemy. . . .

If we resent a friend's action or the so-called enemy's action, we still fall short of this doctrine. . . . If we harbour even this thought, we depart from this doctrine of ahiṃsā. Those who join the ashram have to literally accept that meaning. That does not mean that we practise that doctrine in its entirety. Far from it. It is an ideal which we have to reach, and it is an ideal to be reached even at this very moment, if we are capable of doing so. . . .

In its positive form, Ahiṃsā means the largest love, the greatest charity. If I am a follower of Ahiṃsā I must love my enemy. I must apply the same rules to the wrong-doer who is my enemy or a stranger to me as I would to my wrong-doing father or son. This active Ahiṃsā necessarily includes truth and fearlessness. As man cannot deceive the loved one, he does not fear or frighten him or her. Gift of life is the greatest of all gifts; a man who gives it in reality, disarms all hostility. He has paved the way for an honourable understanding. And none who is himself subject to fear can bestow that gift. He must therefore be himself fearless. A man cannot then practise Ahiṃsā and be a coward at the same time. The practise of Ahiṃsā calls forth the greatest courage. . . .

My reverent study of the scriptures of the world has led me to the belief that all register emphatic and unequivocal testimony in favour of non-violence being practised by all, not merely singly but collectively as well. In all humility I have often felt that having no axes to grind and having by nature a detached mind, I give a truer interpretation of the Hindu, Islamic or other scriptures. For this humble claim I anticipate the forgiveness of Sanatanists, Christians and Mussalmans. . . .¹⁵

Gandhi on Truth

Even at the cost of some repetition, we shall stress the relation between a nonviolent ethics of struggles and persistent disagreements and an honest unrelenting search for Truth.

The most famous dialogue on the relation between Truth and nonviolence is that between the Hunter Committee's council and Gandhi in 1919. Since the details of the dialogue, however well known, have still not sufficiently impressed all students of Gandhi, we find it justifiable to quote from it:

Council: However honestly a man may strive in his search for truth, his notions of truth may be different from the notions of others. Who then is to determine the truth?

- Accused: The individual himself would determine that.
- Council: Different individuals would have different views as to truth. Would that not lead to confusion?
- Accused: I do not think so.
- Council: Honestly striving after truth differs in every case.
- Accused: That is why the nonviolence part was a necessary corollary. Without that there would be confusion and worse.

The most crucial point is perhaps Gandhi's admission that "honestly striving after truth differs in every case." Such an admission makes it altogether natural to look at violent opponents, even terrorists, without moral indignation insofar as they are honest strivers after truth. Further, who is able to judge the degree of honesty of others? Gandhi's line of information and persuasion is firmly based on the admission of honestly held opposite views and of our high degree of ignorance concerning the efforts made by different people to arrive at facts or plausible hypotheses.

Highly significant are the following three central passages concerning the relation of *ahimsā* to truth:

The more I search after Truth the more I feel it is all-inclusive. Truth is not covered by non-violence. But I often experience that non-violence is included in truth. What a pure heart feels at a particular time is Truth; by remaining firm on that, undiluted Truth can be attained. This does not involve any conflict of duty or conscience either. But difficulties often arise in determining what non-violence is. The use of bacteria-destroying liquid is also violence. It is only by firm adherence to truth that one can live non-violently in a world which is full of violence. I can, therefore, derive non-violence out of truth.

(*Harijan* 27.11.1949)

In this quotation, the personological and pragmatic component of Gandhi's use of the term *truth* has gained the upper hand. The epistemological component has been submerged, and it is only this that makes it not too unlikely that nonviolence can be derived from truth. Mostly, Gandhi—as shown above—stresses the difficulty of finding truth and the inevitability of conflicting views. If there are opposite views about what is happening in a conflict, one may unintentionally injure one or both sides. A "pure heart" is not enough, as Gandhi often shows; one must try to reach a true opinion about what is going on.

It is perhaps clear from the foregoing, that without *Ahiṃsā* it is not possible to seek and find Truth. *Ahiṃsā* and Truth are so intertwined, that it is practically impossible to disentangle and separate them. They are like the two sides of a coin, or rather of a smooth unstamped metallic disc. Who can say, which is the obverse, and which is the reverse? Nevertheless *Ahiṃsā* is the means; Truth is the end. Means to be means must always be within our reach, and so *Ahiṃsā* is our supreme duty. (Gandhi 1961, vol. 2: 27)

Most of the components of the Truth concept are manifest in the following elucidation of the relation of Truth to nonviolence:

But it is impossible for us to realize perfect Truth so long as we are imprisoned in this mortal frame. We can only visualize it in our imagination. We cannot, through the instrumentality of this ephemeral body, see face to face Truth which is eternal. That is why in the last resort one must depend on faith.

It appears that the impossibility of full realization of Truth in this mortal body led some ancient seeker after Truth to the appreciation of *Ahiṃsā*. The question which confronted him was: "Shall I bear with those who create difficulties for me, or shall I destroy them?" The seeker realized that he who went on destroying others did not make headway but simply stayed where he was, while the man who suffered those who created difficulties marched ahead, and at times even took others with him. (Ibid., p. 25)

In short, the seeker after Truth understands that it never will be within reach, that he always will be more or less in untruth and error. This makes him nonviolent.

In our attempt to condense and systematize Gandhi's teaching on group conflicts, it has been necessary to cut out some of these themes relating to Truth and nonviolence. We have adopted the subordination of nonviolence to Truth, the latter notion split into two: truth with a small *t* and self-realization.

A Conceptual Reconstruction

Gandhi often speaks about realizing Truth and realizing God;¹⁶ he speaks somewhat more rarely of realizing self.¹⁷ He nevertheless maintains, as has already been mentioned, that "self-realization is the subject of the Bhagavad Gita as it is of all scriptures" (Desai 1946: 1). In order to condense the teaching and make it more universally understandable, the aspects of realization may be reduced to two: the search for self-realization or God or Truth with a capital *T* and the search for truth (with a small *t*).

From truth with a small *t*, or from the ontological or epistemological concept of truth, no *ahimsā* principle can be derived. One may, however, construct a derivation by taking “search for God or Truth” to be, in the main, other names for the more understandable self-realization and adding a metaphysical postulate announcing the essential or ultimate oneness of all living beings. From the premises that one should realize one’s self and that all (living) selves are ultimately one, the necessity of both truth seeking and *ahimsā* may be derived.

We now introduce the concept of an individual *P*’s self-realization as realization of *P*’s potential for complete expression. The actual level of self-realization attained may show variation and can never reach the theoretical maximum. There are different kinds of measures of level of self-realization. Therefore, when applied in the following, Gandhi’s criteria are presupposed. According to Gandhi, the path toward an individual’s maximum self-realization does not necessarily obstruct the paths of others; on the contrary, mutual aid is possible and desirable.

For the sake of our condensed conceptual reconstruction we shall now introduce a general concept of nonviolence:

Himsā (violence) is avoidable direct influence in the direction of a lower level of self-realization. *Ahimsā* (nonviolence) is direct influence in the direction of a higher level of self-realization.

According to Gandhi, a decrease or increase of self-realization in one individual involves a decrease or increase (not necessarily of the equal magnitude) of the self-realization of others.¹⁸ Thus, *himsā* by anyone against anyone is also *himsā* against me.

The main motive for introducing this broad concept of violence, and the corresponding narrow concept of nonviolence, is to allow us to subsume under this broad concept of violence all those phenomena that Gandhi actually does subsume. To put it more directly, we wish to subsume exploitation, suppression, and other phenomena that are best defined without reference to any person’s acting with manifest physical violence against another. Impersonal, structural, sociological phenomena that in an avoidable way decrease or obstruct the increase of self-realization are all subsumable under this broad concept of violence.

How Gandhi himself made such subsumptions will be clear later. Here we shall only recall his dictum that the essence of violence is exploitation and that an unjust law “is itself a species of violence” (Gandhi 1944, vol. 1: 150).

*Graphic Presentation of Principles and Norms:
Systematizations *E and *F*

In what follows, those principles and norms from which the norms and hypotheses of Gandhi's teaching on group struggle are explicitly derived are, first of all, made explicit and then fitted into a graphical presentation. There are, of course, many ways to present such derivations. The one offered here is called Systematization *E for easy reference.

SYSTEMATIZATION *E

- *N₁ ≡ Seek complete self-realization.
- *H₁ ≡ Complete self-realization requires seeking truth.
- *N₂ ≡ Seek truth (from *N₁ and *H₁).
- *H₂ ≡ All living beings are ultimately one.
- *H₃ ≡ Violence against yourself precludes realizing your self.
- *H₄ ≡ Violence against any living being is violence against your self
(from *H₂ and *H₃).
- *H₅ ≡ Violence by anyone against anyone precludes complete self-
realization of anyone (from *H₃ and *H₄).
- *N₃ ≡ Act so as to reduce and eliminate violence (from *N₁ and *H₅).
- *H₆ ≡ Your complete self-realization involves that of others (from
*H₂ and *H₅).
- *N₄ ≡ Act so as to help others in their quest for self-realization (from
*N₁ and *H₆).
- *N₅ ≡ Act so as to help others in their quest for truth (from *N₁, *H₁,
and *H₆).

The immense weight Gandhi attached to the term *Truth* in his speeches and prayers makes it important to try out a systematization with "realize Truth" as the formulation of the top norm. Systematization *F is such an attempt. It is clear, I think, that the systematization is unduly complicated and the derivations not as obvious, on average, as those of Systematization *E.

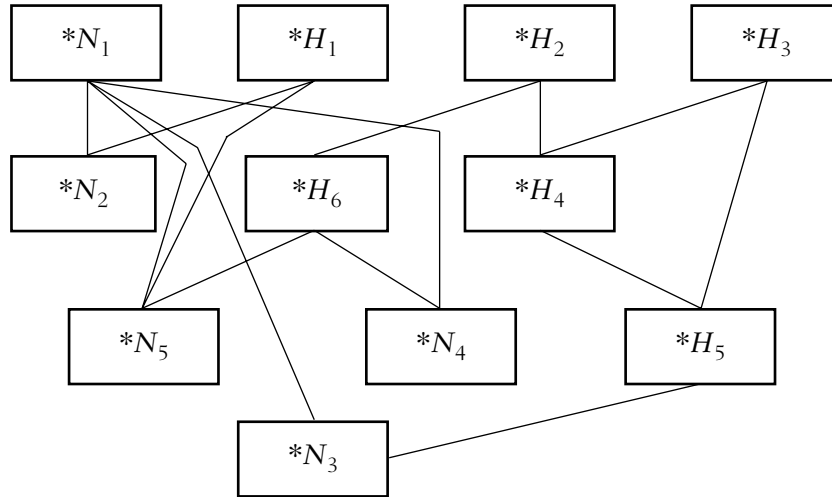


Figure 1. Graphic presentation of the norms and hypotheses of Systematization *E.

The reason for the shortcomings is to be found in Gandhi's multiple use of the word *Truth*.

The basic sentences "Seek complete self-realization," "Realize Truth," "Realize God," and "All are ultimately one" are intended to convey something that is prior to the distinction between an injunction and a description. The True and the Real in much philosophy from Rigveda to Bradley are not adequately thought of as a world or cosmos or anything existing here and there. There is a basic positive valuation of some sort that makes it not quite adequate to formulate the basic "norms" as prescriptions rather than descriptions. On the other hand, the formulation "All living beings are ultimately one," grammatically a description, has a prescriptive component. The oneness is something to be realized; it is not, rather, merely a fact.

The combined descriptive and prescriptive function of basic metaphysical utterances makes it unwarranted to accuse Gandhi of making the naturalistic fallacy. He does not, to take one instance, derive a norm ("Act non-violently") from a description ("All life is ultimately one"). The latter is a component of the metaphysical utterance concerning the universal Self, neither a prescription nor a description.

There are many ways in which Gandhi's ethics and principles of group struggle can be derived from his metaphysics. However, certain positions

THE METAPHYSICS OF SATYĀGRAHA

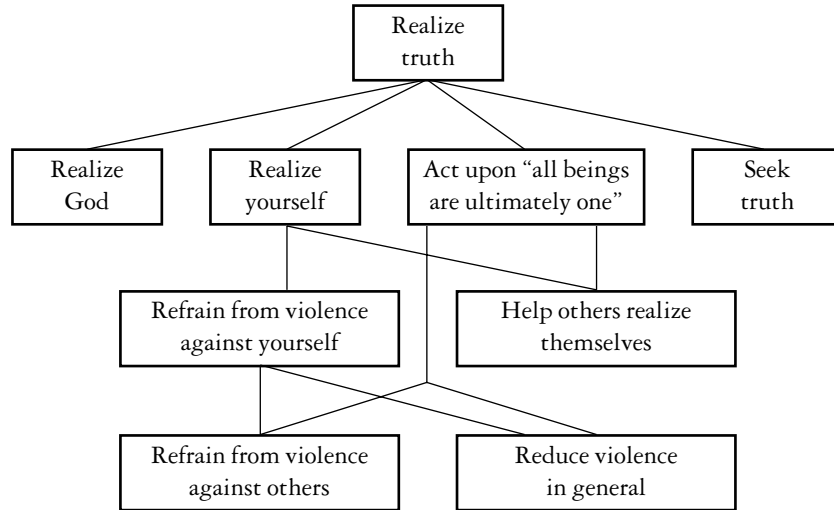


Figure 2. Graphic presentation of Gandhi's norms as depicted in Systematization *F.

must be considered central in any derivation: the ultimate unity of all life, the inescapable fallibility of ethical as well as factual judgments, and the close dependence of what can be achieved (the goals) on how we proceed to achieve it.

From the point of view of analytically oriented philosophy, the wording of Systematizations *E and *F is inordinately vague and ambiguous. Nevertheless, to take this as an objection suggests a misconception of the role of analysis. That role is eminently that of explication and making precise, taking the spontaneous and intuitive metaphysical utterances as initial formulations or starting points.

The formulations *E and *F are starting points for interpretations articulated with a higher degree of preciseness. Thus, "oneness of all living beings" might be made more precise by dynamic interpretations using the process of identification rather than the status of identity. Identification, again, might be considered as a psychological, a sociological, or a biological term, or it might be substituted by a combination of these aspects plus an ethical and political norm. Such substitutions are clearly made by Gandhi. In *Yeravda Mandir*, for example, the religious concept of sacrifice is identified by an ethico-political concept of work:

A Conceptual Reconstruction

The divine law, that man must earn his bread by labouring with his own hands, was first stressed by a Russian writer named T. M. Bondaref. Tolstoy advertised it and gave it wider publicity. In my view, the same principle has been set forth in the third chapter of the *Gita* where we are told, that he who eats without offering sacrifice eats stolen food. Sacrifice here can only mean Bread labour.—Reason too leads us to an identical conclusion.

(Gandhi 1957: 35)

The background of Gandhi's thinking is such that theology, metaphysics, and politics simply cannot be separated—neither in life nor in semantics!

III

Norms and Hypotheses of Gandhian Ethics and Strategy of Group Struggle

Introductory Remarks

Aim of the Systematization

Any normative, systematic ethics containing a perfectly general norm against violence will be called an ethics of nonviolence. The content will show variation according to the kind of concept of violence adopted. In order to do justice to the thinking of Gandhi, the term *violence* must be viewed broadly. It must cover not only open, physical violence but also the injury and psychic terror present when people are subjugated, repressed, coerced, and exploited. Further, it must clearly encompass all those sorts of exploitation that indirectly have personal repercussions that limit the self-realization of others.

The corresponding negative term *nonviolence* must be viewed very narrowly. It is not enough to abstain from physical violence, not enough to behave peacefully.

In what follows, we offer a condensed systematic account of the positive ethics and strategy of group struggle, trying to crystallize and make explicit the essentials. We use the adjective *positive*, because the systematization does not include a treatment of evils, for instance, a classification into greater and less great evils. (Whereas violence is always an evil, it is sometimes a greater evil to run away from responsibility.)

According to Gandhi's ethics, explicitness is a duty. His politically relevant actions were innumerable, and he offered running commentary on them, factually as well as in terms of ethical appraisals. Few politicians have talked so much on the metalevel. Furthermore, because he never worked behind closed doors, there were always witnesses. We are spared the feeling

that the most important decisions, the most important statements of policy, were worked out in secret sessions.

The resulting vast material makes it practicable to work out broad interrelated groups of sentences representing rational reconstructions or models covering Gandhi's politically and ethically relevant behavior and attitudes.

The primary sources for this kind of reconstruction are historical documents and other materials concerning Gandhi's activities, his own systematic writings, his correspondence, and the conversations and speeches. They were recorded or summarized by D. G. Tendulkar, Shri Pyarelal, Mahadev Desai, and others. Much of this material has already been printed and is easily available.

If we were to mention a publication of particular value for rational reconstructions, I should choose the first volume of Gandhi's *Non-violence in Peace and War* (1942, 1944) edited by Desai, one of his distinguished companions. It includes not only a variety of newspaper articles and letters, but also recordings of conversations. They are all dated, and most of them refer to well-known political actions going on at the time. The concrete nature of the problems at issue does not reduce the philosophical value of the material. On the contrary, the interpretation of professional philosophers' ethical texts is usually hindered by an almost complete lack of reference to application in concrete situations. This is true of Plato, Hobbes, Nietzsche, and others. Without abundant application to concrete, historically well-known situations, ethical doctrines are impenetrable to analysis.

Of the many compilations of quotations from Gandhi, the enlarged edition of *The Mind of Mahatma Gandhi* (1967), edited by R. K. Prabhu and U. R. Rao, is outstanding. Unhappily, those extremely important sources from which we have already drawn, Gandhi's periodicals *Young India* and *Harijan*, are practically unavailable. References to these must therefore, in many cases, be supplemented by supporting references to the compilations.

In the following, one particular version, *E*, of one particular rational reconstruction of Gandhi's ethics is outlined in the form of a normative system. The system belongs to the class of systems that outline, structure, reflect, or portray not all Gandhian thought but primarily Gandhi's ethics of group struggle between 1907 and 1934. After 1934, political life in India becomes increasingly complicated, making it more difficult for Gandhi to apply his ideas in a simple, surveyable, unambiguous way.

Concerning the adequacy of Systematization *E*, the following should be added: The norms N_1 through N_{25} and most of the hypotheses are selected on the basis of a survey of norms and hypotheses in Gandhi's writings and the interpretation of his actions in campaigns. Some of our formulations are close to those of Gandhi; others are only indirectly or in part derived from him. Our main concern has been to ensure that all norms¹ of group ethics necessary to justify and explain *satyāgraha* (as described by Gandhi) are included in N_1 through N_{25} , and that no norm is contrary to the spirit of the formulations found in Gandhi's texts.² Thus completeness or comprehensiveness has ranked high in our choice of Systematization *E* among many different versions. Unhappily, the wideness of the perspective has necessitated a relatively high level of abstractness. For concrete applications that elucidate the abstract norms and hypotheses, one must consult the relevant sections in chapter 4.

The ethics of group struggle is conceived as a component of ethics in general, but with some degree of independence: the total set of its norms is derived from a very small number of norms, ultimately only one, which concerns group struggle in general. The dependence on general ethics is structurally shown by the derivation of a basic norm concerning group struggle from norms of other parts of ethics.

The dependence is also clear from the fact that some of the norms of the particular version of the ethics of group struggle outlined in what follows can be derived from norms of other parts of ethics by processes of inference that circumvent the basic norm of the ethics of group struggle. Thus, norm N_8 , "Do not humiliate or provoke your opponent," is derived from norm N_{14} and hypothesis H_9 , that is, from "If you are not able to subsume any of a group of relevant actions or attitudes as in themselves violent or constructive, then choose that action or attitude that most probably reduces the tendency to violence in the participants in the struggle" and "You invite violence from your opponent by humiliating and provoking him." However, norm N_8 might also be derived from a general code of conduct concerning behavior toward others, whether or not a struggle is imminent. The possibility of such circumventions is not, of course, very alarming. The historical data permit different explications of the relation between general ethics and the ethics of group struggle.

In what follows, we ignore directives as to how to fight for a bad cause—for instance, for an increase of violence—and assume tacitly that

the goal for a struggle is acceptable from the point of view of Gandhi's ethics as a whole. This assumption is used in relation to all hypotheses and norms of Systematization *E. The acceptance of the assumption is important because otherwise one cannot assume, as in H_2 , that there is an incompatibility between goal-directed motivation and destructive, violent tendencies. Destructive means are often good for destructive goals!

A systematization of Gandhi's ethics of group struggle with only one basic general norm appears to make all more specific norms instrumental and to rob all values, except those defined by the basic general norm, of their status as intrinsic values. Thus, if all more specific values are derived, then the only intrinsic good will be the realization of the basic general norm; all other values are instrumental. If all this is a fair interpretation of a pyramidal systematization, then we have arrived at a utilitarianism more comprehensive than that of, for instance, Fanon (see here on pp. 98 ff.), but a utilitarianism nevertheless.

This interpretation, however, is grossly misleading. "Universal self-realization" is not an object *in addition to* specific steps of self-realization at a definite time in a definite situation. The postulation or hypostatization of such an object would express a crude conceptual realism that is squarely incompatible with the function of systematizations. Further, the individual acts of seeking truth do not serve as instruments by which one creates something different from these acts, namely, "truth seeking in general." Thus individual steps toward self-realization and acts of truth seeking cannot without misapprehension be termed useful for universal self-realization and seeking of truth. The pyramid of norms and hypotheses is not one quality or value. The good attained by following a norm at the lowest level is not a good of the lowest kind, a slight and unimportant good. Levels of derivation do not correspond to levels of goodness or value or quality. Derivation depends on generality, not quality. A low value is not "derived" from a high value, a low norm is not derived from a high and more respectable norm.

Action is always specific and singular, therefore no norm can be followed if it is not specific enough to enlighten us about how to act in concrete situations. The lower levels of the pyramid are levels with increasingly specific norms and hypotheses. From "Act so as to minimize violence on this planet" nothing follows when one is in doubt about an act of sabo-

tage. A high place in the pyramid, taken in isolation, is on the whole an indication of lack of usefulness in practice.

Our conclusion: The relation of values defined by lower level norms to those defined by higher ones is not one of usefulness but one of derivation. Thus, this relation of values is not utilitarian in the sense of mere usefulness.

The Particular Norms and Hypotheses

A norm is said to be on level k , $k > 1$, if it is directly derived from a norm of level $k-1$. This is said to be so even if the derivation also requires acceptance of some hypotheses. A hypothesis is said to be of level k if it is used in the derivation of a norm of level k .

First and Second Levels

From “Act so as to reduce and eliminate violence,” $*N_3$ of the meta-physical systematization, we derive the level one or fundamental “norm of nonviolence in group struggle”:

$N_1 \equiv$ Act in group struggle and act, moreover, as an autonomous person in a way conducive to long-term, universal, maximal reduction of violence.

The derivation of N_1 from the basic general norms of self-realization and a hypothesis concerning the ultimateness of life permits us to picture the ethics of group struggle as an application of that norm to particular situations.

It should be noted that N_1 is not characteristic of consistent pacifist positions since it may, for instance, be argued without violating N_1 that killing in group struggle may be more conducive to the long-term, universal, maximal reduction of violence than not killing. We shall comment on the relation to pacifism later.

Sentence N_1 is intended to express the top norm of the system. All other norms are conceived to be derivable from this norm + hypotheses. The normative power of such pyramidal systems rests with N_1 and N_1 alone.

By there being only one top norm, dependence on the metaphysical position is reduced and made clear and simple. All derivations go through one checkpoint. On the other hand, some norms and hypotheses of Systematization *E* might, as we have already suggested, more naturally and comprehensively be derived from norms and hypotheses of the metaphysical position than from the exhortation to reduce violence in group struggle. The relative independence of the systematization from the details of a metaphysical view is, however, a decisive advantage, and it also makes it easier for others to substitute a different metaphysics from ours, retaining the basic norm of the group struggle system.

The *derivability* of all norms from a single norm does not imply that the top one has any higher normative status. Derivability is not of ethical import. Nor does the derivability of a norm mean that the realization of the norm does not represent a good in itself or an intrinsic value. "Make A. Smith happy" is derivable from "Make all Smiths happy," but this does not imply that it lacks intrinsic value to make A. Smith happy.

Instead of using the phrase "hypotheses and norms of the system," we could also employ the phrase "descriptions and prescriptions." The term *hypothesis* is used because it suggests what we wish to emphasize—the empirical, a posteriori character of the statements—and because we want by our terminology to constantly suggest the possibility and relevance of research programs revising norms and to reflect changes in political and social settings. Since all norms of the system except N_1 are prescribed under the condition that certain hypotheses are true, the whole system, except the single top norm N_1 , is, in principle, open to scrutiny from the point of view of empirical research. That is, the validity of every single statement of the ethics of group struggle depends on the truth and tenability of a set of empirical hypotheses. Gandhi looked on his life as one of *experimentation* with nonviolence.

It so happens that most of the hypotheses are at the moment to some extent testable by the techniques of the social sciences. Or, to be more modest: if the formulations of the hypotheses are made more precise by making use of the terminology dominant in social science today, we can find for each of our hypotheses at least one reformulation that expresses a scientifically testable working hypothesis.

The largely impersonal top norm N_1 is preferred to a norm that simply states, "Do not use violence" because, among other things, it would be too

narrow. The top norm envisages a reduction of violence in complete generality, not only the reduction of one's own violence. It is a pivotal point in Gandhi's thinking. Who does the violence? is a secondary question. Gandhi demands not only personal abstention from violence, but a conduct that does not provoke violence on the part of the opponent or anyone else affected by our conduct. Thus we should not humiliate an opponent by certain kinds of passive resistance because this is likely to produce hatred, which, in turn, may strengthen his disposition toward future use of violence. Further, Gandhi asks for a society, "the nonviolent society," that minimizes the potential role of violence.

There is another important aspect of N_1 : it requires that we *act* in group struggles. Seek the center of troubles and do not run away from the area of conflict. Here the basic attitude of the *karmayogin* reveals itself: one cannot retreat to the solitude of the Himalayas in order to better follow N_1 , because nonviolence by mere isolation from others is not likely to induce nonviolent behavior in others. It is by personal interaction in conflict situations that we can best reduce violence. Further, it is only in difficult (mostly also disagreeable) situations that we can hope to increase our own power of nonviolence. The "benevolent" bystander living in a peaceful suburb may turn out to be a beast when at last he is tested in a fierce riot, whereas a seasoned soldier may keep control of himself and apply nonviolence at a high level.

$H_1 \equiv$ The character of the means used in a group struggle determines the character of the results.

The means-end philosophy of Gandhi and of most other thinkers who feel at home in the camp of nonviolence is important not only from a theoretical point of view, but also didactically. In dialogues carried out in conflict situations, adherents to nonviolence show systematically less confidence in devious ways of arriving at goals generally accepted as good. However, in part because of its central character, the means-end philosophy does not lend itself easily to any clear single expression.

Gandhi sometimes formulated his view on this point in a paradoxical and categorical way. For instance, he says: "Means and ends are convertible terms in my philosophy of life. . . . They say, 'means are after all means.' I

would say, 'means are after all everything.' As the means so the end" (*Young India* 26.12.1924: 424 and 17.7.1924: 236–37; quoted in Prabhu and Rao 1967: 226). Taken verbally, the convertibility leads to paradoxes. If a strike is carried out in complete nonviolence, it does not ipso facto constitute the end. The strike is a means to an end, for instance, food for hungry workers. However ethically formidable in its implementation, a strike does not produce food. Nor does it make sense to invert the process, making food for hungry workers a means for achieving a strike.

There are, happily, other formulations that are more clear. Gandhi has expressed his idea in this way: "The means may be likened to a seed, the end to a tree; and there is just the same inviolable connection between the means and the end as there is between the seed and the tree" (*Hind Swaraj* 1958: 71; quoted in Prabhu and Rao 1967: 226). Taken literally, this formulation also leads to paradoxical or at least strange and awkward conclusions. We have tried to circumvent such interpretations by saying in H_1 that the character of the means determines the character of the results. This is very vague or indefinite, but it helps when combined with certain additions that introduce a typology of means and that also relate this typology to a typology of results.

When an action is said to be a means toward an end, no complete characterization is, of course, given of the action. The logic of these words is similar to that of "cause" and "effect."

Just as one and the same thing may be a cause in one relation and an effect in another, it may be a means in one and an end in another. There are chains of means and ends, just as in the case of causes and effects. (However, means do not *cause* the end.)

If, for example, what is designated by *means* is a definite raid and the end is political independence, there will nevertheless be a large number of actions that count as means in relation to that specific raid as their end. Think of preparations for the raid. Just as in the case of cause and effect, "means-end" is a relation that only takes care of the relata in respect to one single characteristic: the means-end relation.

This already precludes an adequate evaluation of an action that in a given case has a means-end relation to a given goal. Ends do not justify means, Gandhi asserts, just as motivation cannot justify actions—provided, of course, by *justify* we do mean something more than merely "contributing to a justification."

If a *satyāgraha* campaign is a campaign consistent with the ethics of nonviolence, any action that forms part of that campaign must be consistent with that ethics. That requirement already makes it clear that violence cannot be part of (100 percent) pure *satyāgraha*. Thus, if an action is a violent means to an end, no characterization of the end is needed in order to conclude that it cannot be part of (100 percent) pure *satyāgraha*. What is usually gained in ethics of nonviolence by postulating that “means determines ends” or even “means are exchangeable with ends” can be more convincingly and clearly gained by insisting, first, that any end or means in a conflict be subordinate to the norms of nonviolent struggle—it is not enough that ends be confronted with the norms—and, second, that ends definable as features of nonviolent society be anticipated by nonviolent means insofar as they involve acting as though in a nonviolent society. Use of a great variety of such means involves taking up the form of life envisaged for a nonviolent society. However, as long as the end, strictly speaking, includes the nonviolent behavior of the opponents, the (complete) end is not realized before the struggle ends in complete victory. Therefore, means and ends are not exchangeable or synonymous (convertible) if we compare behavior during the application of the means with behavior once the end (victory for nonviolence) has been achieved.

If we take self-realization to be the ultimate goal (as in Systematization *E) and a nonviolent society to be a necessary condition for reaching supremely high levels of self-realization, then all nonultimate ends and all means must be judged in relation to self-realization and the nonviolent society.

For some important means M_i advocated by Gandhi, “genuine, strong use of the means M_i ” and “realizing the end E_i , in relation to which M_i is a means” are very near each other, perhaps extensionally identical. This holds well for the means *ahimsā* in relation to “seeing God face to face” or “knowing God to the extent of seeing Him face to face.” Gandhi says that for him, the only certain means of knowing God is nonviolence—love. However, it is clear from other places that if a person performs perfectly pure *ahimsā*, he ipso facto “sees God face to face.” Perfectly pure *ahimsā*, however, must be considered practically impossible, at least for an individual in a violent society, because it implies complete self-realization and this can only be achieved when others have been dragged out of their violent habits. (“My self-realization is coupled to the self-realization of others.”)

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

$H_2 \equiv$ In a group struggle, you can keep the goal-directed motivation and the ability to work effectively for the realization of goals stronger than the destructive, violent tendencies and the tendencies to passiveness, despondency, or destruction only by making a constructive program part of your total campaign and by giving all phases of your struggle, as far as possible, a positive character.

By “struggle with a positive character” here is meant “struggle, some genuine parts of which show (concretely, perceptually) the desired end by partially anticipating it.” The struggle is, when positive, manifestly and evidently *for* something. Only by implication is the struggle against something. The constructive character is the manifest one; the destructive is implied. The violent opponent faces a state of affairs that shows him the desired end, not a group engaged in destruction or mere opposition against something not desired.

A quotation from Gandhi’s journal *Harijan* indicates how important he conceived the constructive program to be:

By hammering away at it through painful years, people have begun to see that there is a potency in non-violence, but they have not seen it in all its fulness and beauty. If they had responded to all the steps that had to be taken for the effective organization of non-violence and carried out in their fulness the various items of the eighteenfold constructive programme, our movement would have taken us to our goal. But today our minds are confused because our faith in constructive work is so weak. (*Harijan* 10.2.1946)

The goal alluded to in this quotation is “complete freedom (*pūrṇa svarāj*) for India,” that is, not only political independence from the British, but solution of the conflict between different religious communities (Hindus versus Muslims, Muslims versus Sikhs, etc.). The following quotation also illustrates the central position of the constructive programs:

Civil Disobedience, mass or individual, is an aid to constructive effort and is a full substitute for armed revolt. Training is necessary as well for civil disobedience as for armed revolt. Only the ways are different. Action in either case takes place only when occasion demands. Training for military revolt means learning the use of arms ending perhaps in the atomic bomb. For civil disobedience it means the Constructive Programme. (Gandhi 1945: 5)

$N_2 \equiv$ Make a constructive program part of your campaign.

N_2 is conceived as derivable from N_1 and H_2 . The special place of constructive programs in nonviolent struggles is further commented upon on pages 86 ff.

$H_3 \equiv$ Short-term violence counteracts long-term universal reduction of violence.

A violent man's activity is most visible, while it lasts. But it is always transitory . . . Hitler . . . Mussolini . . . and Stalin . . . are able to show the immediate effectiveness of violence. But it will be as transitory as that of Ghenghis' slaughter. But the effects of Buddha's non-violent action persist and are likely to grow with age. . . . [E]xperience convinces me that permanent good can never be the outcome of untruth and violence. Even if my belief is a fond delusion, it will be admitted that it is a fascinating delusion.

(Quoted in Pyarelal 1958, vol. 2: 802)

The qualification "long-term, universal" is used in order to provide a basis for the argument that, even if the short-term result of a war or a minor violent act may completely suppress a large-scale violence, the long-term effects of the use of violence result in more violence than was avoided as an immediate result.

I do not believe in armed risings. They are a remedy worse than the disease sought to be cured. They are a token of the spirit of revenge and impatience and anger. The method of violence cannot do good in the long run.

(*Young India* 9.6.1920: 3; quoted in Prabhu and Rao 1967: 139)

$N_3 \equiv$ Never resort to violence against your opponent.

Many people who favor war subscribe to N_1 . They conceive of war as a means to end all future wars or at least as a necessary evil on the way to ultimate reduction of violence. Norm N_3 goes against this and is conceived to be derivable from N_1 and H_3 .

Actually, no derivation is possible in any formal logical sense. Such derivation would require formalization of the system and the addition of a vast number of uninteresting premises that we have left out. Here we shall

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

only offer a point of departure for explications with highly explicit logical relations. Remarks similar to this are called for in many other instances in the following discussion where the terms *derive* and *derivable* are used. They are not used in the narrow sense of formal logic.

If a group *A* exploits *B* and a person or a group *C* starts *satyāgraha* on behalf of *B*, the aim of *satyāgraha* must be a state of affairs desirable for *A*, *B*, and *C*. The ideal of *satyāgraha* is to leave only victors when the struggle is over. Gandhi appealed to the British to leave India (as rulers) also for their own sake, and he meant it! Exploitation also “exploits” the exploiter: his self-realization is damaged, as not only Gandhi would affirm, but also theorists like Georg Hegel, Karl Marx, and Jean-Paul Sartre. Slaveowners are slaves of their slave ownership. In an area where Hindus dominate Muslims, domination hurts both, just as in areas of the opposite relation of domination. Exploitation is a form of violence (see *Harijan* 1.9.1940: 271–72; quoted in Prabhu and Rao 1967: 264–66), but it is a mutual violence, the exploiters against the exploited and the exploited against the exploiters.

In N_3 and in many norms and hypotheses that follow, we use such expressions as “the opponent,” “those for which we apply *satyāgraha*,” and so on. These refer to the manifest struggle. At a deeper level, *satyāgraha* is undertaken on behalf of all participants in the struggle. This point has been largely overlooked among theoreticians.

Satyāgraha is therefore, strictly speaking, done on behalf of the exploiters as well as the exploited. The manifest opponents are the exploiters, but the obstacles, the weaknesses that must be overcome, belong to both groups. The weaknesses foster the antagonism.

$N_{4a} \equiv$ Choose that action or attitude that most probably
reduces the tendency toward violence of all parties
in a struggle.

This norm is conceived to be derived from N_1 as a specification of it. It is an auxiliary norm we use when deriving N_{13} from H_{13} ; it stresses a nondiscriminating and comprehensive concern for all violence with which we might have contact. Outgroup violence is affected by our ingroup policies. Instead of N_3 , “Never resort to violence against your opponent,” we could have stated “Never resort to violence” or “Never do violence.” From $*N_1$,

“Seek complete self-realization,” and $*H_3$, “Violence against yourself precludes realizing your self,” follows “Do not resort to violence against yourself” (or we can derive this norm from $*N_1$ and $*H_5$). In giving N_3 the form we do, we are deliberately limiting ourselves to group struggle. In any case, the systematization admits a completely general norm against violence. Further, such a norm is not an instrumental norm; it is not utilitarian.

The systematization seems to present a utilitarian ethics of nonviolence because there is a supreme norm, “Seek complete self-realization,” above any norms against violence. However, this interpretation goes against the kind of derivation intended when deriving norms against violence from other norms, as explained on pages 57 f. The relation of nonviolence to self-realization is intrinsic (internal), not external. That is, a state of complete self-realization is intrinsically one of complete nonviolence. It is not like the relation between a strike and a resulting gain in foodstuffs for the workers. Analysis of the food cannot reveal the strike, in spite of the strike being used to achieve, and being instrumental in relation to, the improved state of nourishment. Analysis of a state of self-realization, however, reveals an absence of violence. Derivations in a normative system are not limited to external relations. On the contrary, the intrinsic relations are the normal ones. If this could not be taken for granted, the term *involvement explication* should be used instead of *derivation*. Self-realization involves nonviolence, according to Gandhi.

Nevertheless, Gandhi sometimes viewed nonviolence as of thoroughly instrumental value, or at least said things that might be thus interpreted, for example: “Nonviolence being a policy means that it can upon due notice be given up when it proves unsuccessful or ineffective” (Gandhi 1951b: 75).

$N_{4b} \equiv$ Never act as a mere functionary, a representative of an institution, or an underling, but always as an autonomous, fully responsible person.

The top norm, $*N_1$, “Seek complete self-realization,” involves realizing oneself as an autonomous, fully responsible person, and therefore also acting as such. Furthermore, $*N_2$, “Seek truth,” requires personal independence because truth is not a property or monopoly of any person or institution. Au-

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

tonomy as opposed to heteronomy does not involve more than personal identity: one's own, not someone else's, inner voice is the ultimate source of direction.

The next norms, twelve in all, are derived from norms N_2, N_3 , and N_{4a} with the aid of additional hypotheses, numbered H_4 through H_{17} . In order to facilitate the survey of the systematization as a whole, we shall proceed in a somewhat schematic way.

First-Level Norm:

N_1

Second-Level Norms and Hypotheses:

$H_1, H_2, H_3 \rightarrow$ the latter two derived from the former

$N_2 \rightarrow$ derived from N_1 and H_2

$N_3 \rightarrow$ derived from N_1 and H_3

$N_{4a} \rightarrow$ derived from N_1

$N_{4b} \rightarrow$ derived from N_1

Third-Level Hypotheses

We now proceed to the formulation of the third-level norms and hypotheses. As evidence of the Gandhian character of the latter, we shall sometimes interpolate one or more quotations from his writings, speeches, and dialogues. The weight of this evidence shows great variation from case to case. A more thorough documentation can be made by careful analysis of his campaigns.

The hypotheses of level 3 fall into four groups. The first have to do with securing constructivity and positivity (H_4, H_5, H_6, H_9); the second, with the securing of sympathetic understanding ($H_{10}, H_{11a}, H_{11b}, H_{12}, H_{13}, H_{16}$); the third, with the permanent possibility of convincing (H_{14}, H_{15}, H_{17}); and the fourth, with the role of common goals (H_7, H_8).

$H_4 \equiv$ You can give a struggle a constructive character only if you
conceive it and carry it through as a struggle in favor of human

beings and certain values, thus eventually fighting antagonisms, but not antagonists (positive struggle).

Antagonisms are defined structurally without specifying the function of particular persons. Where there are antagonisms, violence is already at hand as structural violence, or violence is to be expected.

$H_5 \equiv$ It increases your understanding of the conflict, of the participants, and of your own motivation to live together with the participants, especially with those for whom you primarily fight. The most adequate form for living together is that of engaging jointly in constructive work.

We use the qualification “primarily” in order not to create the misunderstanding that *satyāgraha* is carried out on behalf of only one of the contending groups.

$H_6 \equiv$ If you live together with those for whom you primarily struggle and do constructive work with them, this will create a natural basis for trust and confidence in you.

$H_7 \equiv$ All human beings have long-term interests in common (derivable from $*H_2$).

Development of the self toward maturity includes a process of widening interests and identifications. Therefore the self-realization of the mature self requires that of others. On the less metaphysical level, Gandhi stressed concrete, tangible common interests among groups in conflict. Hindus and Muslims, “touchables” and untouchables, landlords and peasants, capitalists and laborers.

I do not think there need be any clash between capital and labour. Each is dependent on the other.

(*Young India* 4.8.1927: 248; quoted in Prabhu and Rao 1967: 209)

The interdependence of conflict groups makes *satyāgraha*, not riots and police violence, the appropriate way of “fighting” it out. Such fighting may

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

result in the radical change of existing institutions. The interdependence does not imply that the group structure is permanent.

[I]f both labour and capital have the gift of intelligence equally developed in them and have confidence in their capacity to secure a fair deal, each at the hands of the other, they would get to respect and appreciate each other as equal partners in a common enterprise. They need not regard each other as inherently irreconcilable antagonists. (Prabhu and Rao 1967: 208)

$H_8 \equiv$ Cooperation on common goals reduces the chance that the actions and attitudes of participants in conflict will become violent.

$H_9 \equiv$ You invite violence from your opponent by humiliating or provoking him.

Thus, if as part of a boycott of a university or a shop, you lie down in the corridors so as to make it impossible for those seriously opposed to the boycott to avoid stepping on you, your opponent is humiliated. He may either refrain from entering the building for respectable ethical reasons or do it but with resentment and anger. He is not likely to be won to your case, but, on the contrary, he will be more willing to use and more able to justify extreme measures in the conflict, for instance, calling the police.

$H_{10} \equiv$ Thorough understanding of the relevant facts and factors increases the chance of a nonviolent realization of the goals of your campaign.

Gandhi devoted much of his time to acquiring a thorough knowledge of relevant circumstances before he acted. He warned his adherents against advocating their cause before they also deeply understood the different aspects of the problems involved.

$H_{11a} \equiv$ Incompleteness and distortion in your description of your case and the plans for your struggle reduce the chances both for a nonviolent realization of the goals and for the success of future struggles.

Rumor and loose talk played in India, just as they do in present-day conflicts, a fundamental role in fostering hatred of the antagonist or outgroup and complacency and righteousness in the ingroup. Organized violence depends on this incompleteness and distortion. "Truth is the first casualty in war," it is said; on the contrary its absence precedes war as a partial cause.

The classic kind of escalation can be seen in the following scenario: Muslim scolds Hindu boy who has stolen a cake; Hindus in next street tell about Hindu being beaten by Muslim; Hindu kicks Muslim, who denies the charge; Muslims in next street tell about the murder of a coreligionist; Muslims murder an innocent Hindu; . . . general riot.

$H_{11b} \equiv$ Secrecy reduces the chance of a nonviolent realization of the goals of your campaign.

The intention to keep certain plans, moves, motives, and objectives secret influences our behavior so that we cannot face our opponent openly (poker-face development). The intention and its implementation are also more easily revealed to the opponent than we are likely to believe. Our poker face alerts the opponent. Furthermore, once a secret is revealed, the opponent cannot know how many other secrets are kept, and a general suspicion poisons the communication channels.

On the other hand, if the opponent is in power, he may arrest all the leaders of a planned direct action. This stresses the need for democratic leadership, making it possible for a larger group to assume leadership.

The norm against secrecy is not a norm against refusal to give information that endangers the life of innocents.

$H_{12} \equiv$ You are less likely to take on a violent attitude if you make clearer to yourself the essential points in your cause and struggle.

A *satyāgraha* is not undertaken unless the fighters are convinced of the rightness of the cause. However, in an action, the direct confrontations are rarely with the most responsible opponents. More often, the direct confrontations are with subordinates of the opponents or with the police. In case of injury to material possessions, these possessions may belong to completely

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

innocent people. During direct actions, the distance between the positive aim of the campaign or movement and the concrete moves and doings of the fighters is considerable. Clear perception of both the positive aim and this distance makes it less likely that violence ensues: the nonviolent fighters are aware how misdirected, how *mal placé* the violence would be. They are aware of the futility of violence.

The importance, for Gandhi, of distinguishing essentials from nonessentials also derives from his teaching that one should always be willing to compromise on nonessential matters (cf. *N*₂₂, p. 82).

$H_{13} \equiv$ Your opponent is less likely to use violent means the better he understands your conduct and your case.

One might object that Hitler and many other leaders of group struggle profited immensely from ignorance. Knowledge of Hitler's conduct was apt to make his opponents consider any means! Against this we must respond with the reminder that the "case" must be consistent with the ethics of nonviolence—if not, Gandhi does not claim that anything will be gained from conducting the struggle nonviolently.

On the whole, Gandhi would insist that we inform our opponent more completely than is customary, even in rather friendly disputes, and that we do this by open actions rather than by proclamations.

$H_{14} \equiv$ There is a disposition in every opponent such that wholehearted, intelligent, strong, and persistent appeal in favor of a good cause is able to convince him ultimately (general convincibility).

In the application of the method of nonviolence, one must believe in the possibility of every person, however depraved, being reformed under humane and skilled treatment (*Harijan* 22.2.1942).

Gandhi tended to include any normal person in the intended field of validity of this hypothesis, interpreting "normal" widely enough to cover even Adolf Hitler. A person's capacity to convince the opponent may be inadequate, but it can be developed immensely.

Hitherto he [Hitler] and his likes have built upon their invariable experience that men yield to force. Unarmed men, women and children offering non-violent

resistance without any bitterness in them will be a novel experience for them. Who can dare say that it is not in their nature to respond to the higher and finer forces? They have the same soul that I have. . . .

(*Harijan* 15.10.1938: 290; quoted in Prabhu and Rao 1967: 149)

According to the metaphysics of Gandhi, all human beings, including Hitler, are ultimately one. It may be right, however, for a person to kill another. In the Third Reich, there were many situations of nonviolent helplessness in which Gandhi's norm to use violence rather than to surrender was applicable.

$H_{15} \equiv$ Mistrust stems from misjudgment, especially of the disposition of your opponent to answer trust with trust and mistrust with mistrust.

There are many examples in Gandhi's writings of this conception of trust and mistrust. His life likewise offers examples of the way he trusted people strongly opposed to him and the courage he thus proved. He repeatedly risked his own life by believing that he could trust his opponents when he met them personally. His "experiments" with trust were on the whole successful.

A grave question, however, is what to trust in the opponent. Sometimes one may press an opponent to promise something, but it would be quite unrealistic to expect him to keep the promise. Gandhi might say here that to trust a person does not mean to trust anything he says; it means to trust something in the opponent that listens to appeals and makes progress possible. The opposite, the mistrust of the whole person, is to give up any appeal.

$H_{16} \equiv$ The tendency to misjudge and misunderstand your opponent and his case in an unfavorable direction increases both his and your tendency to resort to violence.

When Gandhi arrived in Durban in 1897, people were enraged because of biased reports about his speeches in India concerning race discrimination in Durban and other places. He was severely attacked. Recovering, he gave a fair account of the incident, decreasing the chance of further violence. He was to experience similar verifications of his hypotheses during the next fifty years.

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

$H_{17} \equiv$ You win conclusively when you turn your opponent into a believer and active supporter of your case.

Persistent communication with the perceptible aim of convincing the opponent makes chances of solving the conflict greater than does communication that manifests resignation as to the possibility of influencing the beliefs of the opponent. If this sounds improbable, our reluctance to accept the hypothesis may stem from thinking in terms of pure conflicts of interest. Gandhian strategy presupposes common aims that bridge such conflicts. In matters of divergent interest (not touching upon justice), the strategy requires compromise.

No effort has been made explicitly to derive some of the hypotheses from others. By suitable modifications, H_{15} and H_{17} might, for instance, be derived from H_{14} .

Third-Level Norms

The third-level norms deal with the same four classes of subjects as the hypotheses that are used in their derivation—in short, principles of constructivity, understanding, convincing, and common goals.

$N_5 \equiv$ Fight antagonisms, not antagonists: conceive of your struggle and carry it through as a positive struggle in *favor* of human beings and certain values (derived from N_2 and H_4).

The essence of nonviolence technique is that it seeks to liquidate antagonisms but not the antagonists themselves. (*Harijan* 29.4.1939)

Nonviolence does not signify that man must not fight against the enemy, and by enemy is meant the evil which men do, not the human beings themselves.

My non-co-operation, though it is part of my creed, is a prelude to co-operation. My non-co-operation is with methods and systems, never with men.

(Prabhu and Rao 1967: 184)

It may be mentioned, as an example, that in the first part of his most famous campaign, Gandhi supported the people in making salt rather than instigating them to rise up against the empire salt producers and their fac-

tories. The desired situation was anticipated. One should fight the antagonism, not the antagonists.

$N_6 \equiv$ Live together with those for whom you struggle and do constructive work for them (derived from N_2 and H_5 or from N_4 and H_6).

Gandhi's experience in India covered hooliganism, riots, and many other kinds of violent disturbances. He did not have to deal with narcotics and gangs of rebellious youths. Studying the following quotations, the reader might have the typical social problems of the 1970s in mind. The main conclusion is that these problems can only be solved by large-scale mobilization of ordinary citizens, not by police action. The effort of the ordinary citizen to hire and pay a police army to solve problems he himself has created violates a number of Gandhian norms and hypotheses.

To quell riots non-violently, there must be true *ahimsā* in one's heart, and *ahimsā* that takes even the erring hooligan in its warm embrace. Such an attitude cannot be cultivated. It can only come as a prolonged and patient effort which must be made during peaceful times. The would-be member of a peace brigade should come into close touch and cultivate acquaintance with the so-called *goonda* (hooligan) element in his vicinity. He should know all and be known to all and win the hearts of all by his living and selfless service. No section should be regarded as too contemptible or mean to mix with. *Goondas* do not drop from the sky, nor do they spring from the earth like evil spirits. They are the product of social disorganization, and society therefore is responsible for their existence. (*Harijan* 15.9.1940; quoted in Gandhi 1944, vol. 1: 345)

They should contact the criminals in their homes, win their confidence and trust by loving and selfless service, wean them from evil and unclean habits and help to rehabilitate them by teaching them honest ways of living.
(Gandhi 1949a, vol. 2: 127)

I am a Hindu, I must fraternize with the Mussulmans and the rest. In my dealings with them I may not make any distinction between my coreligionists and those who might belong to a different faith. I would seek opportunities to serve them without any feeling of fear or unnaturalness. . . . Similarly, to meet the menace of thieves and dacoits, he will need to go among, and cultivate friendly relations with, the communities from which the thieves and dacoits generally come.
(*Harijan* 21.7.1940)

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

$N_7 \equiv$ Try to formulate the essential interests that you and your opponent have in common and try to establish a cooperation with your opponent on this basis (derived from N_2 and H_7 or from N_4 and H_7 and H_8).

Behind my non-co-operation there is always the keenest desire to co-operate on the slightest pretext even with the worst of opponents.

(Prabhu and Rao 1967: 183)

I would co-operate a thousand times with this Government to wean it from its career of crime, but I will not for a single moment cooperate with it to continue that career.

(Gandhi 1951b: 126)

$N_8 \equiv$ Do not humiliate or provoke your opponent (derived from N_3 or from N_4 and H_9).

When living and working together with opponents (and people on your own side), you provoke them if you try to impose your standards of conduct on them. "The golden rule of conduct," says Gandhi,

is mutual toleration, seeing that we will never all think alike and we shall always see Truth in fragment and from different angles of vision. Conscience is not the same thing for all. Whilst, therefore, it is a good guide for individual conduct, imposition of that conduct upon all will be an insufferable interference with everybody's freedom of conscience.

(*Young India* 23.9.1926: 334; quoted in Prabhu and Rao 1967: 420)

$N_9 \equiv$ Acquire the best possible understanding of the facts and factors relevant to the nonviolent realization of the goals of your cause (derived from N_4 and H_{10}).

In every branch of reform constant study giving one a mastery over one's subject is necessary. Ignorance is at the root of failures, partial or complete, of all reform movements whose merits are admitted. For every project masquerading under the name of reform is not necessarily worthy of being so designated.

(*Harijan* 24.4.1937; quoted in Bose 1948: 209)

$N_{10} \equiv$ Do your utmost to present unbiased descriptions, to be in full accordance with the truth when describing individuals, groups,

institutions, and circumstances relevant to the struggle
(derived from N_4 and H_{11a}).

In a fierce labor struggle, Gandhi attributed his success to the habit of correctness in details — factual truth:

Incorrect or misleading reports, therefore, . . . and their ire, instead of descending on me, would be sure to descend on the poor fear-stricken ryots and seriously hinder my search for the truth about the case.

In spite of these precautions the planters engineered against me a poisonous agitation. All sorts of falsehoods appeared in the press about my co-workers and myself. But my extreme cautiousness and my insistence on truth, even to the minutest detail, turned the edge of their sword.

(Gandhi 1948: 507)

On the other hand, there should be no soft-speaking when harsh truths must be communicated:

False notions of propriety or fear of wounding susceptibilities often deter people from saying what they mean and ultimately land them on shores of hypocrisy. But if non-violence of thought is to be evolved in individuals or societies or nations, truth has to be told, however harsh or unpopular it may appear to be for the moment. (*Harijan* 19.12.1936; quoted in Bose 1948: 151)

Of special importance is a close scrutiny of ingroup gossip. It is all too easy to form a pleasant but biased picture of the campaign when conversing with comrades. This is a main source of satisfactory relations between campaigners during inactivity. They tell each other nice things about the campaign that place the opponents in a ridiculous position. The ingroup feeling is supported by conformity and by falsity of the picture. However, interacting incorrectly with other groups and with the opponent may lead to false steps and undermine the success of the campaign. There are always warm, positive, nice things to be said that do not violate the norm of truthfulness.

$N_{11a} \equiv$ Do not use secret plans or moves or keep objectives secret
(derived from N_4 and H_{11b}).

No secret organization, however big, could do any good. Secrecy aims at building a wall of protection round you. *Ahimsā* disdains such protection. It

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

functions in the open and in the face of odds, the heaviest conceivable. We have to organize for action a vast people that have been crushed under the heel of unspeakable tyranny for centuries. They cannot be organized by any other than open truthful means. I have grown up from youth to 76 years in abhorrence of secrecy. (*Harijan* 10.2.1946; quoted in Gandhi 1949a, vol. 2: 2–3)

I do not appreciate any underground activity. I know that millions cannot go underground. Millions need not. A select few may fancy that they will bring swaraj to the millions by secretly directing their activity. Will this not be spoon-feeding? Only open challenge and open activity is for all to follow. Real Swaraj *must* be felt by all—man, woman and child. To labour for that consummation is true revolution.

(*Harijan* 3.3.1946; quoted in Gandhi 1949a, vol. 2: 50)

According to Gandhi, not all people have at all times the right to know everything about anything. Thus, it may be our duty to keep away information or plainly refuse to give certain information. Such cases were frequent during riots. Hooligans have no right to an answer when asking for the whereabouts of people they intend to rob or kill.

There is another aspect of the duty sometimes not to tell the truth. Gandhi formulated the principle “A reformer cannot be an informer.” Speaking at Uruli about a nonviolent attitude toward criminals, he stated that for a *satyāgrahin* to go to the police in order to give information “would be gross betrayal of trust.” He is also reported to have “mentioned several instances of how he had refused to give information to the police, about persons who had been guilty of violence and came and confessed to him. No police officer could compel a *satyāgrahin* to give evidence against a person who had confessed to him” (*Harijan* 11.8.1946; quoted in Gandhi 1949a, vol. 2: 126–27). A *satyāgrahin* would never be guilty of a betrayal of trust.

$N_{11b} \equiv$ Withdraw the intended victim from the wrongdoer (derived from N_4).

This norm has wide applications under terror regimes. It is often difficult to avoid a conflict of norms: the keeping away of potential victims from a criminalized police may develop into a large project requiring detailed planning that must be kept secret.

The wording of N_{11b} is taken from an article by Gandhi in his *Harijan* (part of it was quoted on page 43).

$N_{12} \equiv$ Announce your case and the goals of your campaign explicitly and clearly, distinguishing essentials from nonessentials (derived from N_4 and H_{12} and H_{13}).

$N_{13} \equiv$ Seek personal contact with your opponent and be available to him. Bring conflicting groups into personal contact (derived from N_4 and H_{13}).

The would-be member of a peace brigade should come into close touch and cultivate acquaintance with the so-called *goonda* (hooligan) element in his vicinity. He should know all and be known to all and win the hearts of all by his living and selfless service. No section should be regarded as too contemptible or mean to mix with. (Gandhi 1944, vol. 1: 344)

Peace brigades have a special mission in riot areas: . . . Theirs will be the duty of seeking occasions for bringing warring communities together, carrying on peace propaganda, engaging in activities that would bring and keep them in touch with every single person, male or female, adult or child, in their parish or division. (Gandhi 1944, vol. 1: 344)

Gandhi tried to come into personal contact with the British administrators and succeeded to an amazing degree. The graver the conflicts, the more intense was his effort to be in personal touch with the opponent.

Perhaps, however, Gandhi did not consistently make efforts to be in personal contact with the very shy and suspicious Jinnah, the Father of Pakistan. If that is the case, it was another mistake “of Himalayan dimensions,” judged from its consequences. It is difficult, however, to find the sources in studying the relation between Gandhi and Jinnah. One of its few students, S. K. Majumdar, has some painful things to point out:

Throughout 1937 and 1938, Jinnah tried his level best to come into personal contact with Gandhiji for the purpose of settling Congress-League disputes. But Gandhiji and the Congress High Command did not think it worth while to cultivate Jinnah’s good will. Feeling aggrieved . . . Jinnah became very bitter only when he found that his conciliatory overtures were contemptuously ignored. Until his self-respect was wounded, his speeches were never characterised by any bitterness, but . . . (Majumdar 1966: 159 and 160)

Some of the close collaborators of Gandhi in the 1940s say that it was impossible to penetrate Jinnah’s personal defenses. However, according to the hypotheses of *satyāgraha*, it must have been possible. Perhaps Gandhi did

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

not feel strong enough in his nonviolent attitude toward Jinnah? He talked surprisingly little about the possibilities of personal contact.

$N_{14} \equiv$ Do not judge your opponent harder than yourself (derived from N_3 or from N_4 and H_{16}).

$N_{15} \equiv$ Trust your opponent (derived from N_4 , H_{14} , H_{15} , and H_{16}).

A Satyāgrahi bids good-bye to fear. He is therefore never afraid of trusting the opponent. Even if the opponent plays him false twenty times, the Satyāgrahi is ready to trust him for the twenty-first time, for an implicit trust in human nature is the very essence of his creed. (Gandhi 1950: 246)

$N_{16} \equiv$ Turn your opponent into a believer in and supporter of your case, but do not coerce or exploit him (derived from N_1 , N_4 , H_{14} , and H_{17}).

The *satyāgrahi*'s object is to convert, not to coerce, the wrong-doer. (Prabhu and Rao 1967: 78)

But there is no such thing as compulsion in the scheme of non-violence. Reliance has to be placed upon ability to reach the intellect and the heart—the latter rather than the former. (*Harijan* 23.7.1938)

How can I, the champion of *ahimsā*, compel anyone to perform even a good act? Has not a well-known Englishman said that to make mistakes as a free man is better than being in bondage in order to avoid them? I believe in the truth of this. The reason is obvious. The mind of a man who remains good under compulsion cannot improve, in fact it worsens. And when compulsion is removed, all the defects well up to the surface with even greater force.—Moreover, no one should be a dictator.

(*Harijan* 29.9.1946; Gandhi 1949a, vol. 2: 138)

Despite much controversy about fasting as a coercive means, Gandhi persisted in the application of fasts. He considered them necessary companions of prayers.

My religion teaches me that, whenever there is distress which one cannot remove, one must fast and pray.

(*Young India* 25.9.1924: 319; quoted in Prabhu and Rao 1967: 34)

[T]here is no prayer without fasting, and there is no real fast without prayer.

(*Harijan* 16.2.1933: 2; quoted in Prabhu and Rao 1967: 35)

It is not to be denied that fasting can be really coercive. Such are fasts to attain a selfish object. . . . I would unhesitatingly advocate resistance of such undue influence. . . . (*Harijan* 9.9.1933: 5; quoted in Prabhu and Rao 1967: 36)

Coercion is taken to be a sort of violence and is therefore inconsistent with pure nonviolence. The questions of permissibility and avoidability of coercion have been debated. We shall discuss this issue separately.

Fourth-Level Hypotheses

A new set of hypotheses, together with norms N_8 , N_{10} , N_{14} , and N_{16} , will give rise to a last group of norms.

$H_{18} \equiv$ You provoke your opponent if you deliberately or carelessly destroy his property.

$H_{19} \equiv$ Adequate understanding of your opponent presupposes personal empathy.

Immediately we begin to think of things as our opponent thinks of them, we shall be able to do them full justice. I know that this requires a detached state of mind, and it is a state very difficult to reach. Nevertheless for a *satyāgrahi* it is absolutely essential. Three-fourths of the miseries and misunderstandings of the world will disappear, if we step into the shoes of our adversaries and understand their standpoint. (Bose 1948: 186)

$H_{20} \equiv$ Avoiding misjudging and misunderstanding your opponent and his case requires understanding him and his case.

$H_{21} \equiv$ If you keep in mind your own fallibility and failures, you are less likely to exaggerate those of your opponent. Opponents are then less likely to be misjudged in an unfavorable way, and their case is also less likely to be underestimated intellectually or morally.

$H_{22} \equiv$ Every political action, your own included, is likely to be based, in part, on mistaken views and to be carried out in an imperfect way (universal imperfection).

$H_{23} \equiv$ You make it difficult for your opponent to turn and support your case if you are unwilling to compromise on nonessentials.

$H_{24} \equiv$ It furthers the conversion of your opponent if he understands that you are sincere.

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

$H_{25} \equiv$ The best way of convincing your opponent of your sincerity is to make sacrifices for your cause.

The notion of sacrifice (and also suffering) in Gandhi's thought stems from the corresponding religious notion in the Baghavad Gita— consider the Sanskrit term *yajña* (“offer,” “token of devotion”). In nonviolent group struggle, hardships undertaken with joy for the cause count as sacrifice. “*Yajna* is not *yajna* if one feels it to be burdensome or annoying” (from Gandhi 1957; quoted in Prabhu and Rao 1967: 230).

The use of the terms *sacrifice* and *suffering* to translate *yajña* will suggest masochism to many Western readers. Let us therefore take note of Gandhi's explanation:

Yajna means an act directed to the welfare of others, done without desiring any return for it, whether of a temporal or spiritual nature. “Act” here must be taken in its widest sense, and includes thought and word, as well as deed. “Others” embraces not only humanity, but all life. . . .

(from Gandhi 1957; quoted in Prabhu and Rao 1967: 228)

The best way to convince the opponent is to make sacrifices for the cause, but hardships undertaken in order to impress the opponent are not *yajña*, according to the above quotation.

$H_{26} \equiv$ During a campaign, change of its declared objective makes it difficult for opponents to trust your sincerity.

Gandhi has in mind the expansion of objectives at moments of weakness in the opponent and contraction when it seems that the strength of the opponent has been underrated.

Fourth-Level Norms

$N_{17} \equiv$ Do not destroy property belonging to your opponent (derived from N_8 and H_{18}).

I see neither bravery nor sacrifice in destroying life or property for offence or defence. I would far rather leave, if I must, my crops and homestead for the enemy to use than destroy them for the sake of preventing their use by him. There is reason, sacrifice and even bravery in so leaving my homestead and

crops, if I do so not out of fear but because I refuse to regard anyone as my enemy — that is, out of a humanitarian motive. (Gandhi 1944, vol. 1: 388)

$N_{18} \equiv$ Cultivate personal *Einfühlung* (empathy) with your opponent
(derived from N_{14} and H_{19} and H_{20}).

By *Einfühlung*, we here think of placing oneself as much as possible in the situation of the opponent and understanding his actions in that context rather than one's own. It depends on the ability and willingness to identify with fellow humans, whatever their relation to one's own private interests. It does not, of course, preclude an intensive fight against the position of the opponent in the conflict. Gandhi's talk on the day after the unsuccessful attempt on his life (January 20, 1948), furnishes an example of how well he succeeded in his cultivation of personal *Einfühlung* with the opponent and of his consequent high level of unbiasedness. Tendulkar reports on this event:

God only knew how he would have behaved in front of a bomb aimed at him and exploding. Therefore, he deserved no praise. He would deserve a certificate only if he fell as a result of such an explosion, and yet retained a smile on his face and no malice against the doer. What he wanted to convey was that no one should look down upon the misguided young man who had thrown the bomb. [The youth] probably looked upon the speaker as an enemy of Hinduism. After all, had not the Gita said that whenever there was an evil-minded person damaging religion, God sent some one to put an end to his life? That celebrated verse had a special meaning. The youth should realize that those who differed from him were not necessarily evil. The evil had no life apart from the toleration of good people. (Tendulkar 1951–54, vol. 8: 331–32)

Gandhi knew that the people trying to take his life were devout Hindus. The one who succeeded (January 30) knew the Bhagavad Gita practically by heart, and the reference to the Bhagavad Gita in the above example must be said to make the opponent's view stand out in its full strength. That Gandhi was a kind of tyrant, that his followers were charmed and awed, not convinced by reason and sentiment, was a conviction held by a considerable minority. Among the leaders, Jinnah was of that opinion, and to one with a different philosophy of means and ends, it might easily be considered a virtue to get rid of Gandhi. The quotation ends with the metaphysical point that evil does not exist as such, but only insofar as it is tolerated by ordinary "good" people. This is a point taken up by many West-

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

ern philosophers, for example, Spinoza, and springs from the metaphysical conception of reality as something beyond good and evil.

$N_{19} \equiv$ Do not formulate your case, the goals of your campaign, or those of your opponent in a biased way (derived from N_{10} or from N_{14} and H_{20}).

$N_{20} \equiv$ Try to correct bias in your opponent only insofar as it is necessary for the campaign (derived from N_{10} or from N_{14} and H_{20}).

If your opponent describes your case in a biased way, this is not sufficient reason for you to use your time to try to correct him. If the misrepresentation is clearly relevant for the conduct and success of the campaign, an effort to change his presentation is advisable.

I am used to misrepresentation all my life. It is the lot of every public worker. He has to have a tough hide. Life would be burdensome if every misrepresentation had to be answered and cleared. It is a rule of life with me never to explain misrepresentations except when the cause requires correction. This rule has saved much time and worry. (Prabhu and Rao 1967: 7–8)

$N_{21} \equiv$ Keep in mind and admit your own factual and normative mistakes, and look for opportunities to correct your judgments (derived from N_{14} and H_{21}).

$N_{22} \equiv$ Always be willing to compromise on nonessentials (derived from N_{16} and H_{22} and H_{23}).

I am essentially a man of compromise, because I am never sure that I am right. (Fischer 1943: 102)

[F]ull surrender of non-essentials is a condition precedent to accession of internal strength to defend the essential by dying. (*Harijan* 10.11.1940: 333; quoted in Dhawan 1951: 129)

A Satyāgrahi never misses, can never miss, a chance of compromise on honourable terms, it being always assumed that, in the event of failure, he is ever ready to offer battle. He needs no previous preparation, his cards are always on the table. (Prabhu and Rao 1967: 172)

Indeed life is made of such compromises. *Abimsā* simply because it is purest, unselfish love, often demands such compromises. The conditions are impera-

tive. There should be no self in one's action, no fear, no untruth, and it must be in furtherance of the cause of *ahimsā*. The compromise must be natural to one-self, not imposed from without. (Gandhi 1944, vol. 1: 126–27)

All my life through, the very insistence on truth has taught me to appreciate the beauty of compromise. I saw in later life, that this was an essential part of *satyāgraha*. It has often meant endangering my life and incurring the displeasure of friends. But truth is hard as adamant and tender as a blossom.

Human life is a series of compromises, and it is not always easy to achieve in practice what one has found to be true in theory.

There are eternal principles which admit of no compromise, and one must be prepared to lay down one's life in the practice of them.

(Prabhu and Rao 1967: 39)

$N_{23} \equiv$ Do not exploit a weakness in the position of your opponent
(derived from N_{16} and H_{24}).

This highly characteristic norm is commented on below (pp. 87 f.).

$N_{24} \equiv$ Be willing to make sacrifices and suffer for your cause (derived
from N_{16} and H_{24} and H_{25}).

In passive resistance there is always present an idea of harassing the other party and there is a simultaneous readiness to undergo any hardships entailed upon us by such activity; while in *satyāgraha* there is not the remotest idea of injuring the opponent. *Satyāgraha* postulates the conquest of the adversary by suffering in one's own person. (Bose 1948: 185)

Self-sacrifice of one innocent man is a million times more potent than the sacrifice of a million men who die in the act of killing others. The willing sacrifice of the innocent is the most powerful retort to insolent tyranny that has yet been conceived by God or man.

(*Young India* 12.2.1925: 60; quoted in Prabhu and Rao 1967: 139)

Gandhi has made it clear that the suffering, that is, the hardship, must be functional. He was not in favor of martyrs or sufferings not caused by acts conducive to the solution of the present conflict or future potential conflicts.

$N_{25} \equiv$ During a campaign, do not change its objective by making its
goals wider or narrower (derived from N_{16} and H_{24} and H_{26}).

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

In a pure fight the fighters would never go beyond the objective fixed when the fight began even if they received an accession to their strength in the course of the fighting, and on the other hand they could not give up their objective if they found their strength dwindling away.

(Gandhi 1950: 422–23)

I distinctly said, that it would be dishonest now, having the opportunity, to take up a position which was not in view when *Satyāgraha* was started. No matter how strong we were, the present struggle must close when the demands for which it was commenced were accepted. I am confident, that if we had not adhered to this principle, instead of winning, we would not only have lost all along the line, but also forfeited the sympathy which had been enlisted in our favour. On the other hand if the adversary himself creates new difficulties for us while the struggle is in progress, they become automatically included in it. A Satyāgrahi without being false to his faith, cannot disregard new difficulties which confront him while he is pursuing his own course.

(Ibid., pp. 209–10)

For the proper use of this norm, we shall distinguish between action, campaign, and movement: Gandhi planned and carried out a number of campaigns for political independence of India and also a number of campaigns for other large goals, for example, the abolition of untouchability and mutual tolerance and respect between religious communities. The always well defined and limited campaigns are thus parts of larger, sometimes more ill defined, diffuse movements with supreme goals. The latter are in general not liable to precise delimitation. *Svarāj* was never defined or specified, leaving each group some freedom of interpretation. “Communal peace” was even less definite. Norms pertaining to campaigns are therefore not automatically generalized to movements. If the two are not kept apart, we are apt to require too much of movements and too little of campaigns. Within campaigns, we may speak of direct actions. Thus, the salt march might be taken as one action and the salt raids as other actions within the “abolish the salt monopoly” campaign. This example, however, is a difficult one, as it appears to suggest that the borderline between action, campaigns, and movement cannot be defined precisely.

Norm N_{25} says essentially that the opponent must get an honest answer to “What do you want through your present action?” and that if we achieve what we have said we want, then that action is to be terminated, whether its termination is opportune or not.

Elaboration and Exemplification

Constructive Programs

In this section, we shall illustrate how the above meager outline of a systematization can be taken as a starting point for a more substantial presentation. First, we shall elaborate on one of the norms of the system, N_2 , “Make a constructive program part of your campaign,” in order to make it more understandable and also more open to critical examination. The paramount importance of this norm stems in part from Gandhi’s conviction that if it is ignored by some sections of the supporters of *satyāgraha*, the strongest non-violent methods in the fight for political freedom are rendered inapplicable. Only those who are able to take upon themselves the task of constructive community service are sufficiently mature for intense massive nonviolent struggle. At a critical juncture in 1930, Gandhi stressed that he could not recommend civil disobedience campaigns because the requirement of a constructive program was unlikely to be fulfilled. Insufficient constructive content in the fight for freedom would make it overwhelmingly probable that there would be violence and that the people, even if victorious, would prove to be too immature for implementing radical reforms.

Gandhi was determined to stop a civil disobedience campaign in the case of such immaturity, as at Chaura Chauri, where some English policemen were murdered. However, only late in his life was he able to admit to himself how far behind he was in developing an institution of constructive work.

Gandhi insisted on constructive or positive conceptions of goals and subgoals and consequently demanded that Indians belonging to groups likely to get into violent conflict in case of crisis should work together on economic and other projects, thereby acquiring a spirit of mutual understanding and trust and a habit of sacrifice, that is, of engagement in the interest of wider long-range goals.

In India, such work was organized and planned under the name of the Constructive Program. The norms stating that one should contribute to the implementation of the constructive program make up an integral part of the Gandhian ethics of group struggle. They are not mere accessories.

A quotation will make the point clearer. In his statement of January 1930, Gandhi said among other things that the atmosphere was not conducive for initiating a mass civil disobedience campaign:

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

Constructive programme is not essential for local civil disobedience for specific relief as in the case of Bardoli. Tangible common grievance restricted to a particular locality is enough. But for such an indefinable thing as Swaraj (freedom), people must have previous training in doing things of All-India interest. Trust begotten in the pursuit of continuous constructive work becomes a tremendous asset at the critical moment. Constructive work therefore is for a non-violent army what drilling etc., is for an army designed for bloody warfare. Individual civil disobedience among an unprepared people and by leaders not known to or trusted by them is of no avail, a mass civil disobedience is an impossibility. The more therefore the progress of the constructive programme, the greater is the chance for civil disobedience. Granted a perfectly non-violent atmosphere and a fulfilled constructive programme, I would undertake to lead a mass civil disobedience struggle to a successful issue in the space of a few months.

(*Young India* 9.1.1930)

In the booklet *Constructive Programme*, Gandhi even says that mass civil disobedience might be dispensed with if the constructive program were taken seriously by all concerned. He says:

Civil disobedience is not absolutely necessary to win freedom through purely non-violent efforts, if the cooperation of the whole nation is secured in the constructive programme. . . . My handling of civil disobedience without constructive programme will be like a paralysed hand attempting to lift a spoon.

(Diwakar 1946: 187)

Constructive work, on the other hand, cannot be dispensed with:

The best preparation for, and even the expression of, non-violence lies in the determined pursuit of the constructive programme. Any one who believes that without the backing of the constructive programme he will show non-violent strength when the testing time comes will fail miserably. It will be, like the attempt of a starving unarmed man to match his physical strength against a fully fed and panoplied soldier, foredoomed to failure.

(Gandhi 1944, vol. 1: 398–99)

The constructive work is of various kinds. A few of the many activities one might work to promote include eliminating untouchability, spreading hand-spun and handwoven cloth, developing village sanitation and other village industries, cultivating basic education through crafts, and creating literacy programs.

Gandhi also had in mind the effect on the opponent. In the eyes of the opponent, the revolutionary seems mainly to have destruction in view.

Gandhi requires methods whereby the constructive intent is made completely clear and trustworthy to the sceptical opponent.

As a demonstration against the British salt tax and salt monopoly, considered to be profoundly unjust, Gandhi and a mass of poor people marched to the sea to make salt illegally. While the campaign was going on, Gandhi used much time for other tasks, such as instigating house industry and cleaning up slum quarters. The latter activity was a genuine part of the campaign and part of the struggle for *svarāj* as a whole. It was a demonstration *ad oculos* that helped the followers and opponents fix their attention on the positive goals rather than on the means and the inevitable destructive components, that is, disabling the British administration.

One may say that the norm to partake in a constructive program is the supreme anti-antimovement norm in the system: those tendencies present in organizations or groups that favor the destruction of something (the organized anti-Semites, anti-Communists, anti-Fascists, etc.) are denounced; every action should have a clear, positive pro-character.

We have used the norm “Give your campaign a constructive content” to illustrate the rich, scarcely surveyable material that has to be studied in order to proceed from a mere diagram toward a full presentation of Gandhi’s political ethics. It should be clear from the comments and quotations that constructivity of main goals, constructivity of subgoals, and the so-called constructive program are means by which Gandhi tried to contribute to the implementation of many norms. It should also be clear that some norms may be viewed as occupying a lower position in relation to the norm requiring constructive work. Actually, the constructive work was a kind of partial anticipation of the condition Gandhi called *pūrṇa svarāj*, real independence, an ideal state of society. The political independence was not, as such, a constructive goal for him, since it was defined as *absence* of British domination.

Nonexploitation of Weakness

Let us elaborate on another norm, N_{23} , “Do not exploit a weakness in the position of your opponent,” that is, insofar as the weakness is due to factors irrelevant to the struggle.

Victory in the sense of bringing the opponent to accept the stipulated conditions for terminating the *satyāgraha* is not necessarily a victory of the kind intended by the *satyāgrahin*. If the surrender is caused by some misfor-

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

tune the opponent has experienced that makes it necessary for him to call off his struggle with the *satyāgrahin*, the opponent may, after the surrender, be as much opposed to the goal of the *satyāgraha* as before it all started. Surrender without conversion is not the ideal kind of termination of the struggle. If by factors irrelevant to the struggle and therefore unrelated to the conversion of the opponent, the *satyāgrahin* are able to get what they desire in terms of conditions, they should, if it is practicable, postpone the campaign until the opponent has recovered his full strength.

As an example, we may take what happened at the last stage of the *satyāgraha* campaigns in South Africa. Gandhi fought against certain laws that he considered discriminatory against the Indian minority. Their repeal was the condition of bringing the *satyāgraha* campaign to a stop. The Indian leaders were planning a march as part of the *satyāgraha*. When a railway strike broke out among the white employees, the government was in a dangerous position and might well have been willing to settle the conflict with the Indians in order to meet the situation created by the strike. Let me quote what Gandhi says in his narrative. Its reliability is not contested by his adversary — and great admirer — General Smuts. Gandhi said:

Just at this time there was a great strike of the European employees of the Union railways, which made the position of the Government extremely delicate. I was called upon to commence the Indian march at such a fortunate juncture. But I declared that the Indians could not thus assist the railway strikers, as they [the Indians] were not out to harass the Government, their struggle being entirely different and differently conceived. Even if we undertook the march, we would begin it at some other time when the railway trouble had ended. This decision of ours created a deep impression, and was cabled to England by Reuter. (Gandhi 1950: 325)

When World War II broke out, pressure was brought on Gandhi to intensify the fight against the British. He declined to take up mass civil disobedience during the war. He said:

There is neither warrant nor atmosphere for mass action. That would be naked embarrassment and a betrayal of nonviolence. . . . By causing embarrassment at this stage, the authorities must resent it bitterly, and are likely to act madly. It is worse than suicide to resort to violence that is embarrassment under the cover of nonviolence.

(Declaration published in all Indian newspapers, October 30, 1940)

Gandhi's argumentation and behavior in these two instances are in conformity with his admonition to not exploit weaknesses in our opponents' position (N_{23}).

Later, during World War II, Gandhi intended to start a mass movement. This plan creates a problem for our Systematization *E*. It requires either a hypothesis that the British then, in the autumn of 1942, were no longer in a temporarily weak position, or a decision that Gandhi violated his own norms, or perhaps a decision to modify our systematization so as to make Gandhi's behavior in both 1920 and 1942 conform to the explication of his ethics. We tentatively take the view that in 1942 Gandhi violated his own norms and are thus able to continue to regard the metaphysical Systematization $*E$ as adequate.

Coercion

Inherent in the concept of group struggle is an acknowledgment of a conflict of wills. "I do not want what you want, and I oppose you." When a *satyāgraha* campaign starts, a conflict of wills is taken for granted.

By definition, a successful *satyāgraha* campaign ends with wills in harmony (within the field covered by the always limited campaign). Normally, the direction of the wills of both parties is changed during the campaign. The antagonism disappears within a limited area without anyone being the victor. There is no vanquished and, therefore, no victor, but there is a victory. How this has happened is demonstrated in the history of *satyāgraha* campaigns; it is not our topic here.

If the parties had heard beforehand about the solution to be agreed on afterward, they would normally have rejected it as contrary to their will. Conceptually, this does not imply that the *satyāgraha* campaign forced a solution on the unwilling contestants. Coercion is not conceptually implied.

This conceptual discussion of volition and *satyāgraha* is important for its clarifying power in relation to the unfortunate acceptance by some researchers of coercion as a positive ingredient in a *satyāgraha* campaign. Thus, Joan Bondurant argues:

Coercion has been defined as "the use of either physical or intangible force to compel action contrary to the will or reasoned judgment of the individual or group subjected to such force." Despite the protestations of a few followers of

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

Gandhi that satyāgraha is always persuasive and never coercive the method does contain a positive element of coercion. Non-cooperation, boycott, strike—all of these tools which may be used in satyāgraha involve an element of compulsion which may effect a change on the part of an opponent which initially was contrary to his will—and he may suffer from the indirect results of these actions. (Bondurant 1958: 9)

As a consequence of her stand at this point, Bondurant also thinks that ideal democracy, the non-coercive society as conceived by Gandhi, retains and therefore contains an element of coercion. “Dhawan errs,” Bondurant contends, when he suggests that Gandhi’s democracy would be “based on non-violence instead of coercion” (ibid., p. 173). As statements of principle not concerned with more or less unavoidable weaknesses in practice, these contentions are important.

Let us, for the sake of discussion, retain the definition of *coercion* by Paullin, adding the version suggested by Bondurant, “application of either physical or moral force to induce another to do something against his will” (ibid., p. 10; for the above-mentioned definition of *coercion* see Paullin 1944: 6).

Suppose person *P* wills *A* at time t_1 and *B* at time t_2 . Something has changed the direction of *P*’s will, and this could not have been his will itself (he neither willed to nor willed not to change his will!), but something foreign to his will. However, from this influence of something on the direction of *P*’s will, one cannot infer that *P* was coerced. Any change of opinion, for instance, may influence the direction. That *P* at time t_1 would have rejected a settlement *B* of a conflict that at time t_2 he accepted is not an indication that he was coerced into willing *B*. He may not have been coerced at all by any person in any respect during the interval t_2-t_1 . If he were *led* to acquire certain information or to receive certain impressions (perceptions) of suffering and these changed his reasoned judgment, we would not say he was coerced.

If the change of will follows a scrutiny of norms and hypotheses in a state of full mental and bodily powers, this is an act within the realm of personal freedom. *P* exercises his freedom of will—he changes his opinion under optimal conditions. The closing of ears and eyes and maximal obstinacy is not characteristic of a person with reasoned judgment. If a pure *satyāgraha* was required to end with a settlement that had already been agreeable to both parties at the beginning of the conflict, why ever start a

satyāgraha? Normally the ultimate formula agreed on after a *satyāgraha* campaign would not be agreeable—or even understandable—to the opponents before the *satyāgraha* was started.

Suppose, for a moment, that *M* carries *P* against his will into the streets where there is a riot and that as a consequence of what he sees, *P* changes some of his attitudes and opinions. Was the change coerced? We suggest that the change of *P*'s opinions or attitudes was not coerced, but that *P* himself was coerced into seeing something that caused the change. The distinction is relevant because *satyāgraha* is certainly incompatible with coerced changes of opinions or attitudes. Gandhi himself insisted on convincing, not coercing. "Coercion is inhuman" (*Harijan* 24.3.1946; Gandhi 1960: 238).

Even if changes of opinion or attitude are uncoerced, a *satyāgraha* may involve coercion: opponents may perhaps be forced or compelled to witness certain things or to hear certain arguments. However, coercion within a campaign decreases the degree of its consistency. It is characteristic that this anticoercive view of *satyāgraha* colors the excellent exposition by Bondurant in spite of her theoretical acceptance of coercion as a genuine element of *satyāgraha*:

In the instance of the Ahmedabad *satyāgraha*, Gandhi came to see that his fasting introduced an element of coercion which detracted from the true character of *satyāgraha*. The adherence to persuasion as opposed to coercion was best exemplified in the Vykom *satyāgraha*: after the State had withdrawn its support of the opposition and the roads had been legally opened to untouchables, the *satyāgrahis* did not take advantage of this development to enter the roads against the persisting opposition of the Brahmans. They continued the *satyāgraha* until they had persuaded their opponents that denial of passage to untouchables was morally indefensible. . . . In examining *satyāgraha* in action, it becomes clear that *satyāgraha* operates as a force to effect change.

(Bondurant 1958: 104)

Satyāgraha operates as a force to affect change—a keen force to affect deep changes. However, a force does not have to *force*. This makes *satyāgraha* possible. Where there is an element of forcing, of coercion, it is Gandhi's claim that the *satyāgrahin* by his or her training and outlook should be able to detect and get rid of it. He himself did not always succeed. Thus, in the fight against the position of certain mill owners, some of whom were his friends and therefore concerned about his health, Gandhi nevertheless initiated a fast:

NORMS AND HYPOTHESES OF GANDHIAN ETHICS

With the mill-owners, I could only plead; to fast against them would amount to coercion. Yet in spite of my knowledge that my fast was bound to put pressure upon them, as in fact it did, I felt I could not help it. The duty to undertake it seemed to me to be clear. (Gandhi 1948: 528)

The fast had other aims than to *make* the mill owners change their position. However, the negative side effect, the pressure put on these people, Gandhi thought he had to put into the bargain. The result was a *satyāgraha* of less than 100 percent purity, but this outcome does not undermine the position that *satyāgraha* may be carried through without such pressures.

If the above is acceptable, Dhawan's short characterization of Gandhi's conception of the ideal democracy may be adequate: a classless society "of autonomous village communities based on nonviolence instead of coercion, on service instead of exploitation, on renunciation instead of acquisitiveness and on the largest measure of local and individual initiative instead of centralization" (Dhawan 1946: 3).

Strict and Less Strict *Satyāgraha*

The foregoing system of norms formidably restricts the field of justifiable forms of conflict resolution. It is, however, the claim of the proponents of ethics of nonviolence that such a system omits no form of conflict resolution that is effective in the long run. It is presupposed that the goal is justifiable from the point of view of general ethics. It is claimed, therefore, that no effective (powerful, adequate) form is excluded for those who fight for an ethically acceptable cause.

The criteria of goodness offered by Gandhi and others are such that no statesmen today would openly reject them. That is, contemporary men in power would proclaim their goals to be good in the sense required. They claim justice, legitimate interest, and freedom as goals. (Whether their practice supports the claims is another question.)

Defining a maximally strict *satyāgraha* campaign as a group struggle completely fulfilling the norms of nonviolent group struggle (here represented by Systematization *E), we have an ideal that one cannot expect to be realized anywhere. However serious the intention of the leaders to realize the ideal struggle, one may expect that the situation sometimes at least momentarily gets out of control or that slight violations of at least one norm

simply “happen” in the heat of the struggle. Then there are circumstances under which even leaders with advanced nonviolent attitudes will deliberately violate one or more norms.

Let hundreds like me perish, but let truth prevail. Let us not reduce the standard of truth even by a hair's breadth for judging erring mortals like myself.
(Gandhi 1948: 7)

Gandhi stressed the importance of holding up an ideal of *ahimsā* even if we do not “practice that doctrine in its entirety” (see the quotation on page 44). The standards of nonviolence should not be lowered: “It would be wholly wrong for us to lower the standards of ahimsa because of our own frailty or lack of experience. Without true understanding of the ideal, we can never hope to reach it” (*Harijan* 28.4.1946). One might add that without adequate understanding of the maximum requirements or the ideal requirements, there will be inadequate understanding of the lesser requirements and the approximations.

A typology of violations must work with several dimensions: with the number of violations of each norm and the seriousness of the violence; with intentionality, i.e., the question of whether the leaders “should have foreseen the eventuality of this or that violation (at certain stages) and made precautionary measures” or their “degree of recklessness in hoping for the best”; and with the extent to which violations are due to non-belief in certain hypotheses.

Thus, we may believe in exceptions to H_{18} , “You provoke your opponent if you deliberately or carelessly destroy his property.” Destruction of instruments of mishandling or of weapons might in some cases be understood by the immediate opponent. Tiny pieces of technical installation could be destroyed in order to avoid great destruction of nature (dams).

More importantly, one might replace the term *violence* in N_1 (“Act in group struggle and act, moreover, as an autonomous person in a way conducive to long-term, universal, maximal reduction of violence”) with *injury*, and claim that the opponent is not always injured by physical violence. A man educated in the tradition of the Wild West may understand a left to the jaw much better than other forms of being shaken up. In riots, the use of fists against looters may have a good effect, some might maintain. In addition, many would claim that nonviolence left them altogether

helpless in the case of the rapid development of a riot or of some other great physical disturbance. Thus, very few would in practice believe in the empirical basis of N_3 , "Never to resort to violence against your opponent."

The multitude of forms of non-quite-strict *satyāgraha* campaigns make them unsuitable for systematic formulation. This is the basis for our strongest counterargument against those who think that the systematization of an absolutely strict *satyāgraha* is unimportant because of the unlikelihood of there being any case of its realization. It is considered too idealistic, remote, and moralizing. However, if we ask these "realists," What systematization do you favor, if any? there is such a diversity of answers, so much arbitrariness in the rules adapted to a reasonably realistic code, as to frustrate all efforts at systematization.

For example, the realist says that some sort of secrecy must sometimes be used. Yes, but how are we to make rules about it? Where are we to draw the line between justifiable and unjustifiable secrecy within *satyāgraha*? The outcome of attempts to formulate rules tends to show that it is better to keep the formulations of the ideal *satyāgraha*, banning secrecy without qualifications, but to introduce somewhat narrow criteria of secrecy, making it different from merely not answering a question or not publishing a plan for direct action.

Take as an instance the important rule of nonviolence that says there is some piece of information that it is your duty to withhold. It cannot be your duty "to tell the truth" about the place where your children are hiding during a riot. The negation of " x tells the truth to y " is not " x tells something untrue to y ," but "it is not so that x tells the truth to y ." There is room for every thinkable behavior except one: *telling* the truth. Within that room, you have, for instance, the option of silence. However, in what cases does silence in such a context constitute dishonesty, untruthfulness, and therefore *himsā*? It seems clear that the protection of innocents against a wild mob, an execution unit of the SS, or any other group or individual set on murder more or less inevitably leads to infringements of some codes of nonviolence and that ethical assessment of the relative seriousness of the violations cannot be made on the basis of a systematization of nonviolence, if on the basis of systematization at all.

We are not, of course, arguing here that systematizations can solve a problem of ethical decision. In the last analysis, the acting person has to reaffirm his adherence to a rule before applying it, and this reaffirmation

does not have its sole justification in any rule. Otherwise, the individual retreats from his status as an individual person. There is no automatism in ethics! We may derive norms from other norms, but not ethically relevant decisions.

Mostly the argumentation against the systematization of pure nonviolent struggle is based on an absolutistic, methodologically naive conception of the aim of a systematization. Only close discussion of scientific methodology can help here. One must make oneself familiar with the peculiar aspect of the use of models and reconstructions, in short, with the *heuristics* of theory construction.

We know from physics, economics, and other sciences that concepts and theories may not fit anywhere but may nevertheless be fruitful. Thus, although the concepts of a vacuum, rigid bodies, economic man, free enterprise, and so forth, do not strictly apply anywhere, they have been useful as part of the scientific enterprise. However, that *part* must not be located incorrectly!

A thorough discussion of the role of systematization tends to conclude with agreement on a rather modest conception of systematization. Our adversary may then exclaim: "Is that all you are trying to do! How can you spend months or even years of your life on such modest aims?" This is a very understandable reaction, but a subsequent question put to the adversary about what *he* deems more rewarding tends to confirm the systematizer in his belief that he hasn't done so badly in his choice of occupation.

IV

Nonviolence and the “New Violence”

The Contemporary Reaction Against Nonviolence

The period spanning the mid-1960s to the mid-1970s witnessed an upsurge of physical violence and a proliferation of recommendations to use manifest violence, physical and verbal. It inundated colonial, racial, and educational controversies in Europe, America, India, and many other areas. Sometimes it has been systematically and consistently anti-Gandhian, being in part a direct reaction against the limited success of Gandhian and pseudo-Gandhian preaching and practice.

We shall not enter here into the controversies about the causes of this development, which we vaguely characterize as the “new violence.” A symptom, rather than a cause, is widespread dissatisfaction, indignation, and impatience when considering the slowness of the movement of liberation in the colonial, racial, and educational spheres. The imperatives “Do it quicker!” and “Freedom *now!*” have testified to this demand for immediate, radical change. The slogan “Revolution!” has invaded all spheres of discussion. Revolution is generally conceived as a violent overthrowing, idealizing “power over” and coercion at the cost of “power to.” Changes should be forced on opponents; agreement and compromise should be shunned. The slogans are sometimes formed consciously so as to be in direct opposition to the preaching of nonviolence.

Young leaders of opinion mostly have no knowledge of the revolutionary aspects of Gandhi’s campaigns. This even seems to hold for Indian leaders. Their image of him is more likely to be of a man concerned with means rather than with ends, more concerned with prevention of open violence than with the elimination of the hidden structural violence built into societies in the form of exploitation. They do not know that Gandhi intended

NONVIOLENCE AND THE “NEW VIOLENCE”

to make, and in fact made, gigantic efforts to destroy structural violence and that his timetable was that of a revolutionary. This fact is important for assessing the potential that improved information on Gandhi might have in the future—even if it must be admitted that Gandhi did not achieve the rapid changes he envisaged early in his life.

Young people on several continents have joined the reaction against the preaching of consistent nonviolence. It is in many ways a fight against the vast flood of hypocrisy, false idealism, suppressed hatreds, and disguised sadism that masquerade as civility, peacefulness, and tolerance. It is perhaps also part of youth’s painful realization of lack of spontaneity and genuine self-expression. The usual descriptions of Gandhian ideology stress moralism, saintliness, humility, and sacrifice (conventionally interpreted) and neglect the basic norm that you should follow your inner voice whatever the consequences. The distortion has contributed to the neglect of militant nonviolence as a possible way of protest.

The new emphasis on violence is clearly formulated by such leaders and authors as Frantz Fanon, Malcolm X, Stokely Carmichael, C. V. Hamilton, and Sartre. In what follows, we limit our references to the writings of these men, and in spite of the many differences in their opinions, we shall refer to their strategy of conflict as that of the “New Violence.”

Comparing the Recent Norms of Violence with Those of *Satyāgraha*

A comparison of the maxims of contemporary violence-promoting leaders with those of nonviolence suggests that on the metaphysical level, it is not the oneness of all life or of humanity that is stressed, but a Lutheran dichotomy between the good and the bad. Certain groups regarded as comprising the good, brave, honest, and just are contrasted with exploiters, suppressors, liars, and traitors. There is, further, a theory of basic contrasts of interest: “[T]he colonial context is characterized by dichotomy,” Frantz Fanon asserts, and he continues:

The zone where the natives live is not complementary to the zone inhabited by the settlers. The two zones are opposed, but not in the service of a higher unity . . . they both follow the principle of reciprocal exclusivity. No conciliation is possible, for of the two terms, one is superfluous. (Fanon 1966: 31)

Power is considered largely to be in the hands of the “bad,” and since violence is taken to be the only adequate means of change, violence is necessary: Self-realization of the “good” group requires using violence against the “bad.” Complete self-realization of the “good” is impossible without violence against the “bad,” and killing does not prevent self-realization of the killer. On the contrary, it helps him. So even if brutality is in some sense “regrettable,” it is morally justified when considered as unavoidable.

From the point of view of Gandhi, the characterization of a human being as (categorically) bad is verbal violence. It denies the possibility of its increasing self-realization and thus justifies its treatment under certain circumstances as a nonliving thing.

As to the possibility of political liberation in the colonies, Fanon holds:

For the native, life can only spring up again out of the rotting corpse of the settler. (Fanon 1966: 72)

The native . . . is ready for violence at all times. From birth it is clear to him that his narrow world, strewn with prohibitions, can only be called in question by absolute violence. (Ibid., p. 31)

The future society envisaged by the advocates of violence seems, on the other hand, to be one of nonviolence and spontaneous conformity in opinions. (Pluralistic ideals are rare, and it might be asserted that this antipluralism is in its consequence a form of violence if conformity is not spontaneous.) Contemporary advocates of violence, in contrast to Fascist theorists, do not see violent activity as an end, but only or mainly as a means to obtain a new social order characterized by harmony and nonviolence.

The belief in such a transition implies a direct negation of a basic maxim of nonviolence, “The character of the means determines the character of the ends,” or in terms of our systematization, “The character of the means used in a group struggle determines the character of the results.” The “fanonization” of means will fanonize the emerging society. According to some advocates of the New Violence, however, the killer is free when he has killed the opponents. The past killing does not cast any shadow into the future.

Any amount, or a very substantial dose, of violence is consistent with a later realization of nonviolence, according to the principles of the New Vi-

NONVIOLENCE AND THE "NEW VIOLENCE"

olence, and some terror may even cleanse the soul and make the transition to nonviolence faster. Fanon considers short-term, preliminary, and immediate violence to be fully consistent with an emphasis on long-term universal reduction of violence. This certainly conflicts with Gandhi's hypotheses! It is in direct opposition to the hypothesis disclaiming that short-term violence may help: "Short-term violence counteracts long-term universal reduction of violence" (*H*₃, p. 63).

Destruction, sabotage, burning, and stealing manifest small-scale violence, and external expressions of and incitement to hatred are used as a means for strengthening the revolutionary resolve.

"Make a destructive program part of your campaign" (cf. *N*₂, p. 63) cannot be said to be a norm among the violence-promoting leaders, but the stress on "moral" encouragement by destruction of the bad is often present.

Physical violence is advocated by Fanon as a means of "burning bridges":

The group requires that each individual perform an irrevocable action. In Algeria, for example, where almost all the men who called on the people to join in the national struggle were condemned to death or searched for by the French police, confidence was proportional to the hopelessness of each case. You could be sure of a new recruit when he could no longer go back into the colonial system. This mechanism, it seems, had existed in Kenya among the Mau-Mau, who required that each member of the group should strike a blow at the victim. (Fanon 1966: 67)

Nonviolent actions strengthen the disposition for more (and stricter) non-violent action, according to Gandhi. However, there is, unhappily(!), no irrevocability. At any level, one may slide back to violence.

The radical distinction between antagonisms and antagonists (cf. *H*₄, pp. 66–67) is not accepted by Fanon. It would ruin the appeal to hatred and vengeance. Hatred against suppression is hatred of the suppressors, says a politician advocating violent revolution in South America.

The negation of the existence of interests that are common to all (cf. *H*₇, p. 67) plays a considerable role.

The intellectual who for his part has followed the colonialist with regard to the universal abstract will fight in order that the settler and the native may live together in peace in a new world. But the thing he does not see . . . is that

the settler, from the moment that the colonial context disappears, has no longer any interest in remaining or in co-existing. (Fanon 1966: 36)

Labor and capital, poor whites and blacks, these and other antagonists have no common interest of the kind that can furnish a basis for future co-operation (cf. *H*₈, p. 68). But in Kenya and many other places, a considerable percentage of successful white settlers remained in the colony after political liberation. Fanon's view on this point was historically not quite adequate.

The adherents of violent campaigns might subscribe to hypothesis *H*₉ (p. 68), that we invite violence from our opponent by humiliating him or provoking him, but this relation is taken sometimes to be a pro-argument for provocation and humiliation. In student demonstrations, premeditated provocation of the police and faculty plays a prominent role in many instances. We are reminded that theories of conflict can always be used in two ways: to exacerbate the potential of violence or to reduce it.

The Gandhian norm that you should move into the center of a conflict favors intensification of the conflict because you support the weaker part, the underdog. The norm implies a policy of confrontation, but not of provocation. The line may be difficult to draw, and there is in militant nonviolence always the risk of coercion and provocation. This practical difficulty, however, does not invalidate the distinction.

The student revolt has elicited what might be called "the new police violence" in many Western countries. The education of the police has not, until very recently, stressed nonviolence under strong verbal provocation ("pig!" etc.). The answer to such provocations is often what is aptly termed "unnecessary brutality." Official rules learned by the police in England and many other countries preclude physical or verbal violence as an answer to verbal violence from demonstrators. The officially sanctioned way of pushing or carrying people away from prohibited places does not involve physical violence. People are coerced—they are carried or (leniently) pushed "against their will." Theoretically such a procedure should not injure physically, and it should be tolerated insofar as one admits the authority of the police. If the number of police is insufficient to achieve the goal in this manner, the order to push or carry should not be given. The use of clubs to hit and injure is not an alternative. It would transgress the limits of police action (toward demonstrators occupying places without a warrant) and theo-

NONVIOLENCE AND THE “NEW VIOLENCE”

retically make the police part of a military force. The classical official doctrine of police action is a doctrine of nonviolence—with an exception, namely the rules for coercing without physical injury.

In nonviolent struggles in which the opponent has the necessary status to make free use of police forces, it is in the long-run interest to try to influence the police in the direction of consistent nonviolence. On certain occasions in the United States, such influence has prevailed. The police are, so to speak, interposed between the nonviolent fighters and the real opponent. To behave so as to make the police the main opponent is a grave misunderstanding of nonviolent strategy. The police and prison officers are important potential collaborators, in Gandhi's view, and the more contact with such people, the better. Confrontations are part of efficient communication; not so, provocations.

Secrecy of moves, keeping the opponent in ignorance, makes it possible to surprise him and enables one to retain the initiative, a prominent feature in today's violent struggle. However, this secrecy runs counter to the norms of (consistent, high-level) nonviolence (cf. H_{11b} , N_{11a} , pp. 69 and 75).

Journalists and reporters should be well received, but, of course, this does not preclude pestering them because of their distorted reports. The militant nonviolent fighter tries to keep informed about how actions are described in the mass media and tries to convert the reporters to his view. Secrecy stems in part from pessimism: reporters who have been against us cannot be turned into helpers. Fanon says:

Frequently reporters complain of being badly received, of being forced to work under bad conditions and of being fenced round by indifference or hostility: all this is quite normal . . . when a journalist from the West asks us questions, it is seldom in order to help us. (Fanon 1966: 60)

In a great many cases, Gandhi answered hostile journalists, but he was not always able to convert them into supporters. His failures cannot and should not change the strategy, but they reflect a major difficulty—getting time for in-depth discussions—and they remind one of the importance of constructive, direct actions. The mere sight of the place of action and the action itself should as often as possible suffice to reveal its aim. This makes long explanations unnecessary. If a campaign consists mainly of such actions, unfair reporting is difficult even if the journalists disapprove.

As to the quest for truth in general, Fanon stresses the impossibility of truthfulness in the colonial situation:

In every age, among the people, truth is the property of the national cause. No absolute verity, no discourse on the purity of the soul can shake this position. The native replies to the living lie of the colonial situation by an equal falsehood. His dealings with his fellow-nationals are open; they are strained and incomprehensible with regard to the settlers. Truth is that which hurries on the break-up of the colonialist regime; it is that which promotes the emergence of the nation; it is all that protects the natives, and ruins the foreigners. In this colonialist context there is no truthful behaviour. (Fanon 1966: 40)

According to the Gandhian hypotheses, truthful behavior in the colonialist context is not only possible, but has, in fact, been realized many times. The behavior of Abdul Ghaffar Kahn, first in India, then in Pakistan, furnishes many impressive instances. Furthermore, those hypotheses imply that there will be a transfer of untruthfulness from the colonial to the postcolonial struggles and also a transfer of narrow, pragmatic concepts of truth, for example, "Truth is what furthers *our* party in the struggle."

Perhaps the Gandhian concept of truth is also pragmatic, if not narrow too? In terms of our systematization, we might consider accepting the maxim "Good is what furthers universal self-realization." But the concept of truth as agreement with reality is conceptually independent of the good even if that maxim is adopted. Truth cannot possibly be a property of a national cause or any cause whatsoever, even the cause to further universal self-realization. The utilitarianism or pragmatism of Fanon and a great many others who are willing to give their lives for their cause is incompatible with the ethics of nonviolence. This ethics requires a concept of truth that is not dependent on causes. Truth cannot be monopolized by any cause whatsoever. The relation of this nonpragmatic conception to the aim of our pyramidal systematization is discussed on pages 56 f.

The question of truth, as Fanon sees it, is obscure. If an attack is made on a human dwelling belonging to a foreigner, the relevant questions are clear: Is anybody killed or injured? What relationships have those killed or injured to the goals of the campaign? What has been done to evacuate children? What has been done to influence the adults? To what use, favorable to the campaign, might the house be put? What will be the influence of the attack on foreigners in the neighborhood? On the attackers themselves? It is

on this concrete level that the sceptical attitude of Gandhi is relevant: Does this particular action lead to the short-term objective? What are the long-term effects? Could this or that particular case of burning or of meeting trust with distrust be avoided?

Systematic distortion of information and biased rendering of all moves by the opponent are of special importance in stimulating hatred and isolation and in tightening the cadres of fighters. Employing these techniques facilitates the formation of a homogeneous ingroup. The leaders must, of course, even according to Fanon, try to distinguish truth from (their own self-made) fiction, but it seems difficult to keep up an intensive flow of invectives without gradually beginning to believe in them or beginning to substitute propaganda for information. The case of Goebbels is a famous example of a man's ultimate surrender to his own propaganda.

Self-scrutiny and insight into one's own goals and motives make for less violent attitudes (cf. H_{12} , p. 69) provided there is a basic willingness to stand up only for causes one is confident are just. However just the cause, one's own motives are generally mixed. The resulting tension between belief in justice and one's own mixed motivation engenders for reluctance to use violence.

This way of reasoning may be foreign to Gandhi, however. He was aware of, and did not hide, mixed motivation as a feature of past campaigns, but it seems that he required the *satyāgrahin* to be able to answer yes to the question "Is my motive when starting this new direct action unmixed: is it limited to realizing the goal of the campaign or might it also involve a wish to injure the opponent or some other deviant motive?" The main question seems not to be whether motives are mixed or not, but whether, during the campaign, no irrelevant motive is capable of diverting the action from the path that is thought to be the best in order to reach the objective. A campaigner may, from very mixed motives, take a number of photographs of the opponent during a physical attack, but he will only make such use of them as is completely consistent with the goal of the campaign. A campaigner will in part for purely egocentric reasons try to avoid being maltreated, but he will try this within the limits of the norms of the campaign.

Your opponent is more likely to use violence if he thinks your case is unjust, and this he is likely to think if he sees his own point of view distorted and caricatured and your case described without regard to your actual, far-from-perfect behavior (cf. H_{13} , p. 70).

The term *fanonization* has been used extensively at universities where sporadic physical and constant verbal violence has colored the campaigns. The “establishment” has hit back with renewed structural violence. Communication among outgroups is often retained, and a fierce picture of the struggle with ingroups is often maintained.

The general convincibility postulated in H_{14} (p. 70) is denied in a fanonized struggle: some opponents are, and always will remain, uninfluenced, however good and just one’s cause. They are only impressed by “guns,” by force and threats. In such cases, it is of course considered time lost to try to convince the opponent.

It is surprising how such pessimistic views about the opponent crop up in practically every intensive struggle. Their influence just before and during riots or wars cannot easily be underestimated. They are used to justify the termination of conflict-resolving communication and to justify the absence of honest attempts to resume it after the breakdown.

The verbal violence on the campuses, especially the use of epithets and extreme accusations, is often an agreeable outlet of emotion and has little to do with those aspects of the interaction between the hostile groups that are causally effective. A wave of mutual accusations and denunciations may terminate seemingly without anyone admitting the correctness of any statement made by the adversary. Nevertheless, after some time, in a more relaxed atmosphere, some sort of solution or a compromise is arrived at on the practical level. The opposing groups have influenced each other, and their views have come to diverge less than before, but nothing of this is clearly admitted. The verbal violence perhaps functions as a secondary emotional gratification, making it easier to accept unwelcome compromises and ad hoc solutions with manifest drawbacks. If this is the case, the Gandhian purist would rather complain about a general lack of mental discipline (*brahmacarya*) than of serious violence. Some of the leaders of rebellion would concede this but point out that the lack of mental discipline is due to the frustrations caused by a thoroughly repressive system. One has to mobilize all who are willing to fight the system, whatever their level of mental discipline. If leaders were to demand acceptance of Gandhian norms, too few would partake in the fight.

It would take too much space to go through the rest of the norm system in our confrontation of Gandhi and the New Violence. Suffice it to say that the tendency to justify or accept violence leads to a thoroughly different conflict strategy from that of nonviolence.

What to Learn from the Reaction Against Nonviolence

Instead of pursuing a contrast of contemporary ideas of violent social revolution with nonviolent social revolution, we shall concentrate on certain basic similarities between the two ways of thinking and also on important necessary conditions or prerequisites of successful nonviolence today. The critique of postwar nonviolent campaigns has helped to remind us of such conditions.

The leading supporters of violence interpret the term widely. Their interpretation is at one point strikingly similar to Gandhi's use of the term, which includes suppression and exploitation under the concept of violence.¹ Open violence is contrasted to *structural* violence.

“*P* uses structural violence in relation to *Q*” may be thus defined: “*P* introduces or supports a set of coercive social relations that create barriers against *Q*'s complete self-realization.” The coerciveness usually depends on a judicial system that can threaten *Q* if he rebels against the suppression. The social relations usually have an economic character, but conceiving of them as fundamentally economic leads to narrowness of perception.

The definition does not, of course, furnish us with a clear concept, but it seems to cover an important use of the term *structural violence*, and it connects with the metaphysics of *satyāgraha*. One weakness of the definition consists in the tacitness of the assumption that the barriers are objectively unnecessary, that is, that economic and other conditions are such in the society in which *P* and *Q* act that one could afford *Q* the higher degree of self-expression made possible by lifting the barriers. In order to clarify this assumption, we would have to introduce a large portion of contemporary (highly controversial!) sociological and economic conceptual theory.

Absence of manifest physical person-to-person violence is not enough to characterize a relation as nonviolent, according to theorists of the New Violence. Barriers to complete self-realization or, more precisely, to a degree of self-realization deemed practically realizable given certain existing economic and technical resources are taken to indicate conditions of violence. The economic underdog–top dog relation is taken equally seriously by Gandhi and the new leaders of violence as a kind of violence (*himsā*). Gandhi once even called exploitation “the essence of violence” (*Harijan* 4.11.1939: 226; quoted in Prabhu and Rao 1967: 369). However, there are also other similarities.

The criticism of past nonviolent campaigns concerning race relations has centered around the slowness of the machinery and the timidity and modesty of their claims. Nonviolent movements in the United States have not until recently asked for “justice now.”

Gandhi at least sometimes asked for immediate basic changes. In 1942, he started the “quit-India!” campaign — one of his least successful, perhaps — but not untypical of his impatience and “immodesty”; it reflected his belief in the practical possibility of, as well as the immediate need for, a rapid radical change, that is, a nonviolent revolution. Appeals to students to leave the colleges and fight for freedom are examples of actions based on a requirement of rapid change. What made Gandhi sometimes choose rather modest targets was the very realistic suspicion that the Indian populace was far from ripe for taking over the institutions led by the British. Further, what made him sometimes cancel campaigns was the also realistic suspicion that the population was not yet sufficiently nonviolent, which means that they would not be able to achieve what Gandhi saw as the goal: a non-violent society.

But on the whole, revolutionary impatience is something the new leaders of violence have in common with Gandhi. It is also a point where he differs from Martin Luther King, Jr. and some of the other great civil rights personalities. Gandhi had a toughness and disregard for bloody confrontations that many Christian pacifists felt bordered on savagery.

There is still another similarity: the brutal Gandhian norm “Seek the center of the conflict” or, more generally, the stress on activist confrontations with the system. Gandhi strongly resented passivity or mere verbal support of fighters, and he emphasized how participation in direct action radicalizes.

The new tendency is to proclaim that things cannot continue as they are, radical change must come immediately; no one can be allowed to remain passive. Polarization of opinion, however painful, is necessary. Further, with the present productive capacity and manpower, a just and nonviolent society can be realized.

Some of these points reveal the stress on antagonisms, on structures rather than on antagonists. This stress is a main feature of Marxist thinking. Certain antagonisms must immediately be eliminated — but without necessarily eliminating any of the antagonists.

As a consequence of proclaiming it a duty to act vigorously and immediately, the new leaders, just as Gandhi, engage in lively direct agitation and

NONVIOLENCE AND THE "NEW VIOLENCE"

preaching at the grass roots, refusing to be hampered by democratic machinery. If the machinery is ill equipped to cope with large-scale injustice, direct action must be resorted to. Gandhi did not try to quell communal riots through laws and parliamentary action.

Indian nationalist politicians of the Congress Party accepted Gandhi as a leader because of his unrivaled influence among the masses, at the grass roots, but there was always uneasiness about his relation to the party system and later to the whole parliamentary setup. It suited neither his temper nor his philosophy.

There is, in Gandhi's view, nothing sacred about the electoral or legal system. Yet there is, of course, a grave responsibility associated with suspending or violating the system. Every plan to break a law must be thoroughly discussed and illuminated before its implementation.

The Basic Requirement of Self-Respect: Fearlessness

When Gandhi left South Africa and started work in India, he realized that the masses in India could not immediately be mobilized to political action for independence, for *svarāj*.

From prolonged hunger or undernourishment apathy follows. Gandhi sometimes complained that the most frustrating thing of all was the unwillingness of the hungry to do anything to change their own personal lot. He found that the basic obstacle when trying to mobilize the masses was their feeling of powerlessness, uselessness, and insignificance. From this attitude there follows a lack of personal identity and personal norms and, of course, lack of initiative to find ways of producing more and better food.

Gandhi was unable to effect any radical change in the food situation; he could not eliminate undernourishment and unemployment. However, in spite of this, he managed to awaken the masses and to mobilize them. How? One of his greatest inventions was the Khadi.

The Khadi movement and certain similar undertakings had a variety of aims. But one basic aim was precisely to get the poor, unemployed, suppressed, and passive to realize that they were persons with an identity, a dignity; they were worth something, and they were not completely helpless.

At this point, it might be inserted that political opponents of Gandhi described the Khadi movement as if it were Gandhi's complete answer to In-

dia's economic crisis. This way of misconceiving the movement was repeated in a well-known article by the author Arthur Koestler in the *Sunday Times*, October 5, 1969. But Gandhi did *not* nurture "the fantastic hope of solving India's economic problems by bringing back the handloom and the spinning wheel." He had great confidence in intensive agriculture, including irrigation, using refined machinery. He had less confidence in industrialization as a means of overcoming poverty and lack of work in the villages. The increasing flow of the unemployed toward great cities created terrible problems. The ugly riots were all starting in the big slums. Gandhi saw the necessity of creating conditions such that people could on the whole remain in their villages except for the few that big industry would need. Indian Marxists were squarely against his economic views, being convinced that the proper course of India was the one followed in Soviet Russia in the years after the revolution, that is, immediately giving first priority to heavy industry. The correctness of this policy is now much disputed, but its advocates in the 1920s and 1930s of course found Gandhi's stress on agriculture insufferably reactionary.

Gandhi's propaganda for the spinning wheel was first of all a successful campaign against the total passivity and resulting lack of self-respect of the very poor. Making their cloth meant for thousands of jobless wretches the start of a new kind of life and participation in a national struggle for liberation. Marxists at that time were very much against the religious aura surrounding the spinning wheel, and the poet Tagore detested the frenzy of the campaigns.

If a hundred or two hundred million underfed and more or less jobless villagers in India were to try to get industrial work in the cities, what would happen? "Heavy industries will need to be centralized and nationalized. But they will occupy the least part of the vast national activity which will mainly be in the villages" (cf. Gandhi 1951c). He had "no partiality for return to primitive methods," but village industry was the only "way of giving employment to the millions who are living in idleness." Gandhi went perhaps too far in his fight for decentralization and against the creation of big proletariats, but recent developments in the West have made Gandhian value priorities worth serious study.

The participation of the poor and underprivileged in the Khadi movement and vigorous campaigns such as the salt march, with obvious, spectacularly direct relevance for their economic well-being fostered that minimum

NONVIOLENCE AND THE "NEW VIOLENCE"

of self-respect indispensable for meaningful participation in nonviolent campaigns. One may say that Gandhi's strategy included as a preliminary step the lifting up of people from the status of nonentities to a level at which self-realization was conceivable as an aim. Only on that level could self-discipline, born of self-respect and dignity, be reckoned upon under harsh provocations and frustrations. Self-respect, in short, is a prerequisite for non-violent mass campaigns.

Martin Luther King, Jr. was completely clear about the basic function of self-respect in struggles for liberation:

With a spirit straining toward true self-esteem, the Negro must boldly throw off the manacles of self-abnegation and say to himself and the world: "I am somebody. I am a person. I am a man with dignity and honor."

(King 1967: 43–44)

However, to exhort a black man in the ghetto who does not feel he is somebody to boldly tell the world "*I am* somebody" is not a meaningful strategy. The strategy had to be one of leading black people from "nothing and nowhere" toward a point at which they could honestly say "I am somebody." Only then may the process start of boldly throwing off all the signs of slavery. "Psychological freedom, a firm sense of self-esteem, is the most powerful weapon against the long night of physical slavery," says King (see p. 115). Yes, but that weapon must be forged, and those who do not have that firm sense of self-esteem are precisely those who cannot do the forging by themselves.

Gandhi and King both faced the question of creating self-respect, but it seems that Gandhi may have been more inventive in his choice of methods or that the social and cultural condition of the Indian peasants was in certain senses better than that of the American blacks in their ghettos.

Violence Preferable to Cowardice

Fearlessness is indispensable for the growth of the other noble qualities. How can one seek Truth, or cherish Love, without fearlessness? (Bose 1948: 24)

Gandhi held fearlessness to be a necessary condition for all other high qualities. It has a position in his system that can only be justified by linking it

closely to necessary conditions of self-realization and therefore of active search for truth.

To run away from danger, instead of facing it, is to deny one's faith in man and God, even one's own self. (Prabhu and Rao 1967: 144)

If a person is not willing to take risks, he will not follow any insight, any personal conviction if it seems dangerous to do so. Lack of fearlessness Gandhi likes to call cowardice, even if this lack is rather modest and quite common.

The long road toward nonviolence cannot be followed, according to Gandhi, if one does not fight cowardice—even when it entails acting with violence. Some quotations are needed in order to develop his somewhat complicated views on this point.

I found, throughout my wanderings in India, that India, educated India, is seized with a paralyzing fear. We may not open our lips in public; we may not declare our confirmed opinions in public. . . . [I]f you want to follow the view of Truth in any shape or form, fearlessness is the necessary consequence. . . . We fear consequences and therefore we are afraid to tell the truth.
(YMCA address, "The Vow of Fearlessness," 1916;
quoted in Prabhu and Rao 1967: 308)

I do believe that, where there is only a choice between cowardice and violence, I would advise violence.
(*Young India* 4.8.1920: 5; quoted in Prabhu and Rao 1967: 142)

Critics of King stress that a man who lacks self-respect and self-identity cannot—or at least cannot be expected to—refrain from violence when met with violence, except out of cowardice. His reflexes answer violence with violence; the question is only, Do I dare? King and pacifists in general have tended to reject counterviolence at the same time as they have deplored cowardice.

It is the choice between violence and cowardice in such cases that the Black Power critics (in the wide sense of the term *Black Power*) tell us characterizes the situation for the majority of black citizens in the United States. They meet daily structural discrimination and structural violence.

If the choice between violence and cowardice is constantly repeated and if the victim of violence answers every time to "Dare I?" by turning

NONVIOLENCE AND THE “NEW VIOLENCE”

away — avoiding the conflict or meekly turning the other cheek — a cowardly attitude is reinforced. The chance of standing up next time and of hitting back decreases. In the long run, the chances of standing up in any way whatsoever decrease.

This kind of description by the Black Power leaders not only reminds us of similar descriptions by Gandhi; it follows Gandhi's utterances word by word.

The new leaders exhort their poor followers to hit back if insulted. Compare this with Gandhi:

If you feel humiliated, you will be justified in slapping the bully in the face or taking whatever action you might deem necessary to vindicate your self-respect. The use of force, in the circumstances, would be the natural consequence if you are not a coward. But if you have assimilated the non-violent spirit, there should be no feeling of humiliation in you. (*Harijan* 9.3.1940)

One might add that the person with nonviolent spirit does not feel humiliated by insulting behavior on the part of others because his self-respect nullifies the effect of the insult. The insulting words or deeds simply do not impress him, and he naturally does not feel any smaller. There is no feeling of shame, of reduction in status, of loss of dignity. It is the aggressor that loses in dignity, not the so-called victim.

The quotation makes a priority clear: of the two goals “Stop conceiving of yourself as humiliated” and “Stop answering violence with violence,” the first is prior. Only when the first goal has already been reached can the second be accepted unconditionally.

The quotation is not only significant as one among dozens of clear statements assessing the negative value of cowardice as greater than the negative value of violence; it is also one of the few but clear indications of the immense importance Gandhi attached to self-respect. Faced with a potential loss of self-respect, it is the prime concern of the individual to avoid the loss. Loss of self-respect must be avoided even if the only way to do it, as perceived by the individual, is to be violent, to be criminal, to murder. This seems to be the consequence of Gandhi's remark on humiliation and violence.

How can Gandhi justify going to such extremes? The answer is that without a minimum of self-respect, of inner security, one cannot even reach the road leading toward self-realization, and this again means that one can-

not start on the road toward nonviolence. That road takes off from the road toward self-realization, not vice versa. The man feeling he is nobody, a no-person, may help himself to be somebody by acts that cannot be tolerated by mature persons.

An important lesson expressed by the quotation can be summed up as follows: participants in a conflict perceive the situation differently according to their level of self-respect. At a very low level, the behavior of the opponent is likely to be experienced as humiliating and provocative. To let oneself be provoked indicates loss of self-respect and admission of powerlessness. At a higher level, with higher degrees of self-security, no violent behavior of the opponent is experienced as humiliating, and none as provocative. Then, one's own violence may be experienced as humiliating, not that of the opponent. A concentration camp guard tends to believe that when a prisoner is forced to creep through mud in front of hundreds of his fellow inmates, the prisoner loses dignity and self-respect, whereas the witnesses only see the loss of these qualities in the guard.

In India, Gandhi succeeded to an unprecedented degree in raising the weak masses to a substantial level of self-respect. They were made capable of following a leader. The magic spell of Gandhi was even stronger than the imperative force of a man in uniform swinging a formidable club (*lāṭhī*) and throwing people in jail. But, of course, nonviolence never matured into a deep-rooted power in India. Provocations such as those experienced in the years 1946–48 proved too strong, and there was a lapse toward large-scale violence among the masses.

In the United States, the urbanized blacks did not feel they had a living cultural tradition strong enough to furnish a source of self-respect and nonviolent power. When Martin Luther King, Jr. began his bus campaign in 1955, mobilizing fifty thousand blacks, he seems to have started with masses on an even lower stage of development of self-respect and dignity than did Gandhi when in April 1919 he inaugurated his all-India *satyāgraha* movement to secure withdrawal of the Rowlatt Bills. Black Power leaders have proved to possess a keen eye for means of raising the level of self-respect. Thus, their demand for large-scale instruction in African culture at schools and universities shows their deliberate effort to give their followers inner security. The propaganda for African hairstyles, clothing, and other external signs of pride in being black manifest the same tendency.

Violence as a Means to Increase Self-Respect

Whatever the causes, King and his faithful followers did not succeed in mass mobilization on a continental or subcontinental scale. Wonderful feats of nonviolence under brutal attacks and supreme personal achievement in civil rights cases could not make up for the lack of mass support. Impatience grew by leaps and bounds, and the cry for immediate, radical change was heard more and more often. It issued from people who knew the potentialities of nonviolence: "[Y]ou know history has been triggered by trivial-seeming incidents. Once a little nobody Indian lawyer was put off a train, and fed up with injustice, he twisted a knot in the British Lion's tail. *His* name was Mahatma Gandhi!" (Malcolm X 1965: 272). But they did not believe in the prospect of consistent nonviolence in the crisis of race relations.

Now, what the Black Power leaders have done is essentially to tolerate and to some extent encourage counterviolence, to hit back when hit; and it is my hypothesis that the subtle, not always conscious, but strong motive has been that of building up self-respect, a sense of dignity, and a feeling of inner security. There have, of course, been mixed motives, and the expressed aims testify to this; but there is enough evidence and material, verbal and nonverbal, to maintain the self-respect theory of Black Power violence.

Incidentally, Sartre seems (in his preface to Fanon's book) to agree with Black Power leaders on the function of counterviolence:

The native cures himself of colonial neurosis by thrusting out the settler through force of arms. When his rage boils over, he rediscovers his lost innocence and he comes to know himself in that he himself creates his self. Far removed from his war, we consider it as a triumph of barbarism; but of its own volition it achieves, slowly but surely, the emancipation of the rebel, for bit by bit it destroys in him and around him the colonial gloom. . . . [T]o shoot down a European is to kill two birds with one stone, to destroy an oppressor and the man he oppresses at the same time; there remain a dead man, and a free man. . . .
(Sartre in Fanon 1966: 18–19)

Fanon puts it in this way:

At the level of individuals, violence is a cleansing force. It frees the native from his inferiority complex and from his despair and inaction; it makes him fearless and restores his self-respect.
(Fanon 1966: 73)

At a deeper, psychoanalytic level, Erik H. Erikson traces the connection between Fanon's killing and the basic Gandhian hypothesis that violence against the other is violence against oneself (cf. *H₄, p. 48):

That killing, in fact, may be a necessary self-cure for colonized people was Dr. Frantz Fanon's conviction and message. . . . An implicit therapeutic intent, then, seems to be a common denominator in theories and ideologies of action which, on the level of deeds, seem to exclude each other totally. What they nevertheless have in common is the intuition that violence against the adversary and violence against the self are inseparable; what divides them is the programme of dealing with either. (Erikson 1969: 74)

King, in a quote cited earlier, puts it in a slightly different way:

With a spirit straining toward true self-esteem, the Negro must boldly throw off the manacles of self-abnegation and say to himself and the world: "I am somebody. I am a person. I am a man with dignity and honor." (King 1967: 43–44)

Showing his understanding of the basic function of self-respect in the struggle for liberation, King continues, as cited earlier (p. 110):

Psychological freedom, a firm sense of self-esteem, is the most powerful weapon against the long night of physical slavery. (Ibid., p. 43)

Our contention is that a minimum of self-esteem is a necessary condition for nonviolent as well as violent struggle and that no exhortations but only action can help to create that minimum requirement if it is absent. The critical question, however, is, Must the action be violent? Gandhi's answer is no, that of Sartre and Fanon, yes.

One is justified in concluding that none of the tough Black Power leaders take physical violence to be more than a preliminary to more constructive efforts. The mental violence—abuse, vilification, distortion in words—will perhaps remain popular as an outlet, but sooner or later constructive efforts will be seen to suffer disproportionately from the hot flow of verbal provocation. There will probably be a tendency toward nonviolent noncooperation and the building of parallel institutions, at least in the economic sector. The war of words and small-scale, unorganized, personal aggressiveness will be found to be uneconomical, too costly, if not degrading, and undig-

nified for race-conscious blacks who clearly see that such tough behavior is characteristic of the whites they despise.

Our aim has been to describe and compare different points of view, not to offer criticism. Perhaps it will therefore be not entirely inappropriate to make a small personal comment: we agree that nonpremeditated, spontaneous violence is sometimes a cleansing force. However, the cleansing force is dependent on spontaneity. Premeditated violence instigated by gang leaders and supported by articulated group norms is scarcely a cleansing force. Therefore, the policy of violence, deliberate plans to use violence as a means in certain group conflicts, cannot be vindicated as a means of creating self-respect. Nor does this policy seem able to solve the long-range problems King had in mind. Furthermore, Black Power leaders tend to defend violence mainly as a desperate means to protect themselves individually against murderous police forces. We thus return to the nonviolent approach, but with a better understanding of the indispensability of constructive programs and an appreciation of the necessity of efforts to increase self-respect among the weakest groups.

Satyāgraha Is Not a Set of Techniques

In a description of Gandhi's *satyāgraha*, one error has perhaps been more damaging for adequate understanding than all the others put together: the description of *satyāgraha* as a mere bundle of techniques. A central characteristic of a technique is its pure instrumentality, its character of being a mere means to an end.

Consider the technique of shooting: a gun may be used by anyone with sufficient know-how. Its use may be quite independent of the thoughts and motivation of the person using it. But this is emphatically not the case with nonviolence. For an action to be part of a nonviolent campaign, it must conform, at least roughly, to the norms and hypotheses characteristic of nonviolence, these being the conscious expressions of nonviolent behavior, attitudes, and institutions. The normative system implied may, of course, be conceived in somewhat different ways and one may have different degrees of approximation to an ideal campaign. However, the techniques, described in terms of overt behavior, cannot be detached from the characteristic norms and hypotheses. A strike, a stay-at-home, or a fast, described in terms of behavior, are not yet instances of *satyāgraha*. They must conform with norms and hy-

potheses of *satyāgraha*, and they are therefore unsuccessful if the opponent or the general public perceives only the behavior, not its symbolic aspect.

Joan Bondurant and others have tried to compare levels of purity of nonviolence in different campaigns. One must, of course, allow for practical errors of judgment and some transgression of norms, but there is less room for variation in intention. If there is no serious resolve to act nonviolently, following most of the norms, this has immediate consequences for how one appears to and is interpreted by the opponent. It is in most cases easy to detect superficiality. One of the most ruinous attitudes is that of trying out nonviolence, and, if that does not lead to success, intending to use violence. This strategy leads to a head-on collision with the norms and hypotheses of nonviolence. The thought “I shall first be nonviolent, and if it does not succeed, I am justified in using violence” is contradictory. There can be no such first-stage nonviolence.

The (implicit, rarely explicit) rejection of *satyāgraha* by the leaders of the New Violence is based in part on this misleading picture of *satyāgraha*: black people are described as partaking in a march or other action as if the external behavior were identical with the action of *satyāgraha*. The picture lacks a description of a positive content of the action itself, its goal-revealing aspect. Furthermore, the attitude of black people is described in terms of humiliation and passivity: their being abused, hit in the face without their “doing anything.”² They have also been described as obsessed by fear and hatred all along. Their church is burned; what shall they do? Nothing, according to certain black-leader descriptions of the nonviolence of Martin Luther King, Jr.

From the preliminary definition of a *satyāgraha* campaign as a campaign consistent with, and expressive of, a nonviolent system of norms and hypotheses, it immediately follows that *satyāgraha* is not a technique. The inclusion of hypotheses is essential; one cannot be asked to believe in certain hypotheses as part of a technique. The technique of firing a gun is independent of any beliefs concerning the meaning and consequences of the behavior involved in firing it.

Individuals are not simply masters of their own beliefs; they cannot normally adopt and reject beliefs according to the needs of the moment. Insofar as they are able to do this, they violate the requirements of truthfulness. Nor can they believe in a norm, or respect it, as part of a technique. But they can believe in norms and hypotheses as part of a total creed and develop

techniques of action that are consistent with, and expressive of, this creed. Thus, they may be asked to break a law, to distribute food, to carry a banner, and so on, as part of a campaign expressive of a creed. If the creed is absent, they cannot do what is asked.

To call *satyāgraha* a method rather than a technique is less misleading because the etymological meaning involves that of *a way* of acting or living. But if a nonviolent campaign is said to be a way of planning and carrying out a campaign, it is only a way that can be adopted by persons who share certain beliefs and attitudes. The confusing point about this terminology is that some of these beliefs and attitudes are part of “the way.” Thus, in discussions in which theoretical clarity is at issue, *satyāgraha* should not be classified only as a method or way of struggle or conflict solution.

How much is required of shared beliefs depends on one’s role in the campaign. Gandhi expected much more of a leader and strategist than of a follower. Confronted with the hypotheses characteristic of belief in *satyāgraha*, many people, including military leaders, will hesitate to squarely reject or accept them as true or as convincing or highly probable. Uncertainty prevails as to their relative validity or invalidity. It therefore makes sense when military leaders or others who traditionally support institutions of violence favor experiments in *satyāgraha*. They favor its tentative use in various kinds of situations. It makes sense insofar as it is a reasonable way of testing the hypotheses that the *satyāgrahin* assert with some dogmatism. However, those engaged in mere testing are not yet *satyāgrahin*. *Satyāgraha* cannot be used properly because it is not a technique, not an instrument.

This point is of importance because the opponent cannot be expected to be impressed by an appeal to the brain and the heart, when the appeal is an *experimental* appeal, a test of power. The difference from a genuine appeal is all too clear in face-to-face confrontations. An appeal to the heart is expected to come from the heart, not from the brain of the experimenter.

The mistake of taking *satyāgraha* to be a technique is, of course, not as widespread as the tendency to use the word *technique* for it. Some of the theoreticians (Bondurant and others) who use the word make it clear that it is not a technique in the sense of a mere instrumentality, independent of the convictions and attitudes of the user. The various activities involved in *satyāgraha* may contain the use of techniques—for instance, making salt, spinning, preparing meals, beating drums, singing songs, building houses, and operating banks. But these are not characteristic of the *satyāgraha* as a whole.

The lighthearted use of the term *technique* and the neglect of systematic study of the roots of nonviolence in ethics and metaphysics has facilitated an incorrect classification of some political, racial, and student campaigns as nonviolent. Demonstrations, strikes, and fasts have been classified as Gandhian and conceived as nonviolent when they have only avoided manifest physical violence. Their lack of success, however, often seems to be due to their neglect of the basic norms of Gandhian struggle.

Isolated traits of Gandhian conflict behavior have been studied from the point of view of game theory. Thus, R. E. Klitgaard uses “two-party conflict models” to study *satyāgraha* “as a tactic” (Klitgaard 1971: 143). He does not deny that it is sometimes a successful tactic but finds that it contains “many contradictions and inconsistent strategic implications” (ibid., p. 152). This is hardly surprising. What is lamentable is the more or less implicit assumption that one has to either think of Gandhi as a tactician or treat him as a saint and refrain from analysis. Gandhian conflict behavior must be studied in relation to a norm system. Any analysis solely in terms of tactic, technique, or method must lead astray.

The Use of Violence as a Sign of Impotency

As systematized by our set of norms and hypotheses, any kind of violence in any kind of conflict situation violates at least one norm. Violence is never right. One may quote Gandhi in support of this unrestricted condemnation. But, as is very well known and has been extensively discussed since the time of the Boer War, Gandhi gave his moral support to groups engaged in war or other violent conflicts. Furthermore, he accepted, recommended, and justified the physical violence to, and injury of, human beings. He has even postulated it as a duty under certain circumstances for certain persons to use physical violence against opponents. This last duty seems to flatly contradict norm N_3 (p. 63), never to resort to violence against an opponent.

There is no easy way of bringing consistency into this seemingly confused aggregate of sayings and actions. The least intricate way, in our opinion, is to take the consequences of three facts:

1. Gandhi’s acceptance, recommendation, vindication, and “duty-postulation” of an act of violence occurs only in relation to a definite person or (small) group of persons.

NONVIOLENCE AND THE “NEW VIOLENCE”

2. The persons by whom the violence is positively (or at least not negatively) valued are in a state of impotency and manifest helplessness. They are at least momentarily not able to follow the norms against physical violence.
3. For such persons it is an inescapable duty to act immediately in the situation in which they find themselves — to act in support of a manifest, high-level goal.

The state of impotency does not have as a consequence a rejection of the system of nonviolence, but the system is nevertheless violated by these persons; they create an evil. However, the evil does not discredit them as persons. It is rather their lack of foresight, their lack of training in nonviolence that is discreditable.

There are, for these persons, ethically meaningful questions to be asked: What can I, should I, or must I do, being in a momentary state of impotency? Gandhi has some answers to these questions. They are not part of his teaching on nonviolence, and they cannot be made part of its systematization. They nevertheless lie within the framework of his total ethics. The ethics of group struggle, as portrayed on pages 53–57 does not take into account comparisons of evils, that is, ethically valid judgments of the kind “A is a greater evil than B.” A person in a state of impotency may have to decide to create evils, but his attempt to create a minimum is in this situation laudable, not damnable. The act does not discredit the person. On the other hand, the state of impotency may be due in part to the neglect of training in nonviolence. It was a recurring lament of Gandhi’s that the Hindus neglected this training and that the politicians of the Congress Party did not support his plan of nonviolent brigades in every danger area of religious conflict. The frequent clashes between Hindus, Muslims, and Sikhs would give ample training in nonviolence. This would minimize the chance of situations of nonviolent impotency.

In conclusion, we may say that Gandhi did not condone violence in any situation. Violence, not specified as the violent act of a definite person, is as such always an evil. On the other hand, given a definite person in a definite situation, an act of violence committed by that person sometimes justifies our saying, “N. N. acted correctly,” “It was a duty of N. N. to act as he did.” The terms *correct* or *right* and *wrong* attach here directly to the person: “The

person was right in doing so-and-so," "It would have been right for any other person in this state and in this situation to act as N. N. did."

This way of looking at the matter not only brings formal consistency into the teaching of Gandhi, but shows how naturally the seemingly contradictory maxims can find their dwelling within one person.

Gandhi's Notion of Nonviolence: Axiology or Deontology?

The claims made by the norms of our systematization are *deontological*: they say what must or should be. One such claim is that anyone should do as the norms tell. There is no gradation: either you should do it, or it is not the case that you should. *Tertium non datur*. In a value system, there is gradation. Some values are taken to be higher than others, a relation not to be confused with that of derivation.

It is tempting to solve the problems Gandhi poses for the systematizer by recommending violence under some circumstances by taking "courageous defense of the helpless, whether nonviolent or violent" as a higher value than "abstention from violence because of cowardice."

The axiological view might be formulated as follows: "Values are worth realizing, but there is a hierarchy of values, there are priorities, in both the positive and the negative realm." Thus, the most important function of grading positive and negative values in making a conceptual reconstruction is to make precise what to do under non-ideal conditions, especially when the shortcomings taken for granted are those of humans.

It follows that the unconditional abstention from violence is, strictly speaking (according to Gandhi), only the highest realizable value for a definite person *P* in a definite situation *S*, provided *P* is not a firm believer in violence in *S* or provided *P* is a coward (is dominated by fear in *S*). If *P* is dominated by fear, he should act violently rather than run away. And if he is convinced that an act of violence is the only possible means of reaching a (good) end in *S*, he should perform the violent deed.

In these sentences, we have used deontological language ("should") together with axiological ("best"). The complications resulting from Gandhi's outlook on cowardice may be addressed with a normative, deontological system, but it is much more convenient, even natural, to use an axiological system. A person who in *S* behaves nonviolently and fearlessly is realizing a

higher value (his behavior is better) than a person who in *S* behaves violently and fearlessly. Further, this person is again acting more valuably than one who acts nonviolently out of cowardice. Of the three values, two are positive and one negative. The less high value is positive insofar as the action is recommended in certain situations. If Gandhi even goes so far as to make it a duty to act violently in certain cases, a positive value must in those cases somehow be realized by the violent action.

Grave consequences, however, flow from the axiological approach. According to this interpretation, it is not sentences of the form "If *x*, then use violence" that reflect Gandhi's thinking, but rather those of the form "If you cannot do what you should do, prefer violence to cowardice." In this sentence it is implied that what you do is wrong. This is very different from the point of view of the performatory use of language, which implies that what you do is the next best or next to the next best. According to Gandhi, (1) there is no definite limit to the strengthening of one's nonviolent capacity, and (2) one is not permitted to calculate beforehand what one might not be able to do nonviolently in a future situation. Gandhi did not argue that we could decide on the limits of our capacity for nonviolence well in advance of a particular, acute conflict situation. "Impotency is avoidable." This hypothesis is taken to be valid until the conflict situation is present physically in the form of a threat to persons who are obviously too weak to resist direct physical attack. In such situations the *satyāgrahin* may be justified in proclaiming that he is in a state of impotency, and it may be his duty physically to attack the aggressor.

In conclusion, we shall retain the deontological approach. We shall also speak of degrees of wrongness, weakness, and error and distinguish degrees of the seriousness of breaks with norms of nonviolence. However, we shall not try to incorporate norms such as "Be violent rather than a coward" into the norm system.

When heavily exploited, some people today resort to physical violence, while others respond with widespread indignation and a warning to resort to legal means. If we take the term *violence* to cover any avoidable severe curtailment of the possibilities of self-realization of others, the indignation is misplaced if not accompanied by a parallel indignation at the structural and sometimes physical violence suffered by those who are being exploited. As it is now, the outcry is rather one of "How dare you do violence!" instead of "How dare we remain passive!"

Constructive, Goal-Revealing Campaigns

Gandhi was a great believer in person-to-person contact. He was a believer in the possibility of showing, rather than telling, the opponent what a campaign aims toward. Excepting the Khadi movement, he did not take very seriously the talk about campaigns and the glorifying accounts of their implementation. He expressed a low estimation of the function of his periodicals *Harijan* and *Young India*. He did not deplore their suppression! He thought that a campaign would have a stronger appeal when it showed what the campaigners wished to realize than when he talked about it. To him, a campaign would be more powerful when it showed the positive future state of affairs (untouchables praying in temples, making salt) than when it showed the present negative state of affairs (the clubbing of campaigners, pictures of fat rich people, and so forth).

The requirements or ideal of constructivity favor the establishment of parallel institutions and parallel business. This is the main reason why the slogan “Take care of business” (T.C.B.) may be regarded as the indirect offspring of the nonviolent campaigns in the United States.

Stokely Carmichael and Charles V. Hamilton conclude their book *Black Power* with the following highly relevant proclamation:

[W]hatever the consequences, there is a growing — a rapidly growing — body of black people determined to “T.C.B.” — take care of business. They will not be stopped in their drive to achieve dignity, to achieve their share of power, indeed to become their own men and women — in this time and in this land — by whatever means necessary. (Carmichael and Hamilton 1967: 184–85)

The work in parallel institutions can go admirably hand in hand with other parts of a constructive program. Selfless work is needed in order, for instance, to build and operate a cooperative or a school.³ Teachers may perhaps not get a decent salary in the first year but will they be “ruining” their careers? There is ample opportunity for constructive suffering.

Gandhi tried to implement the formation of parallel institutions, but not with great success. Some of the basic parts of the constructive program, such as help for the untouchables and the Khadi, exhausted most of the available energy of his followers. There was not much left for building schools, establishing law courts, and so on.

NONVIOLENCE AND THE “NEW VIOLENCE”

In the case of the salt *satyāgraha*, the manufacturing and storing of salt and its distribution to the poor were all positive measures consistent with a T.C.B. norm.

Struggle by means of constructive campaigns seems to have a great future in societies with a fairly high level of personal, not necessarily private, enterprise. With sufficiently widespread public support, almost anything can be realized by a simple resolution to act as if an institutional change were already realized. This holds well, for instance, in educational institutions.

Central authorities may stop financial support of one rebelling school, but if nearly all schools are radically changed by teachers and students, it is unlikely that financial support can be stopped.

If a tiny group favors a radical institutional change that the rest of the community ignores or considers worthless, the conflict is, of course, of a very different kind. The small group must somehow get the rest to pay attention and reconsider, and at that moment, acts of violence are (in many countries) more likely to get reported in the mass media than anything else.

Does the constructive approach go against those who ask for an immediate and radical change in society, a change that destroys all present institutions? Not necessarily. A judicial system is destroyed by not being used by anyone; the same holds for voting. If an institution is left to die because a completely different one is being created, there is a radical constructive, not destructive, change. There is no limit to the application of the approach; but inertia makes it highly improbable that old institutions can be destroyed overnight. The experience of Mao Tse-tung is a recent grand-scale manifestation of this point. On the other hand, physical destruction also has limited consequences. All prisons might be blown up without the prison system being affected. New, more solid prisons may be built, and the sale of dynamite curtailed!

In short, the maxim “The whole system must be destroyed” does not rule out constructivity. What rules it out is the addition “before we can think of what might replace it.” No definite new system may be needed, but new mores are at least required in a radically changed situation.

Constructivity and Destructivity in Gandhi’s Salt *Satyāgraha*

Constructivity—the visual, concrete, clear manifestation of goals—is of the utmost importance when trying to solve the constant problem of com-

munication with immediate opponents, for instance, with the police and soldiers (national guard and so forth). In severe conflicts, the *satyāgrahin* is not confronted with an antagonism, but with physically present antagonists. The antagonist directly in front of him may not even know about the antagonism.

Let us take the salt *satyāgraha* as an example, clearly announced to the viceroy in the famous letter of March 2, 1930. To march 241 miles is in itself communicative only as proof of persistence, will, and stamina. But the salt march was one from Ahmedabad to the sea, where it was announced that salt was to be made from seawater.

The direction of the march plus the culminating manifestation, the easily understandable making of salt, made the salt march positive and indicative of the goal of the campaign. Compare this with the poor people's march to the bureaucratic center in Washington, D.C. What were they to do in Washington except speak against the government and experience the deteriorating effect of unemployment? They could not perform actions in Washington that showed what they wanted. The campaign lacked salt.

There was an obvious need for poor people in India to use salt and there was an obvious difficulty for them to pay taxes and get the necessary salt from the British monopolistic stores. Nevertheless, police had to interfere with the very process of making salt because it violated a law. The campaign was arranged in such a way that violence against the campaigners struck them at the moment of realizing, of anticipating, the kind of social relations envisaged only in a nonviolent society. The opponent had to try to destroy this very relation, attacking even the making of a small pinch of salt for personal consumption.

Let us contrast this action with a later development of the salt *satyāgraha* that did not have this positive, goal-revealing nature.

In the beginning of May 1930, Gandhi prepared a notice to the Viceroy:

God willing it is my intention on . . . to set out for Dharasana . . . and demand possession of the salt works. The public have been told that Dharasana is a private property. This is mere camouflage. It is as effectively under government control as the Viceroy's House. Not a pinch of salt can be removed without the previous sanction of the authorities.

It is possible for you to prevent this raid, as it has been playfully and mischievously called, in three ways: by removing the salt tax; by arresting me and

NONVIOLENCE AND THE “NEW VIOLENCE”

my party unless the country can, as I hope it will, replace every one taken away;
by sheer goondaism, unless every head broken is replaced, as I hope it will.

(Tendulkar 1951–54, vol. 3: 36)

Gandhi does not tell in whose name he would demand possession of the salt works or from whom he could expect to get a concession at the site of the salt works.

Gandhi was arrested, and leadership was transferred, first to Mr. Abbas Tyabji, then to Mrs. Sarojini Naidu. Let us quote from the narrative by Tendulkar, one of the most careful writers on the subject:

On May 21st over 2,000 volunteers led by her [Mrs. Naidu] and Imam Saheb raided Dharasana salt depot, about 150 miles north to Bombay. Mrs. Naidu led the volunteers in prayer and addressed them briefly: “Gandhiji’s body is in jail, but his soul is with you. India’s prestige is now in your hands. You must not resist, you must not even raise a hand to ward off blows.” With Manilal, Gandhi’s son, in the forefront, the throng moved forward towards the salt pans, which were now surrounded by four hundred Surat Police with half a dozen British officials in command. The police carried big lathis, five-foot clubs tipped with steel. Inside the stockade twenty-five riflemen stood ready.

(Ibid., p. 40)

We all know how things developed. There was bloodshed on a large scale. An American journalist named Miller, who visited a temporary hospital, counted 320 injured, many still insensible with fractured skulls, and others writhing in agony from kicks in the testicles and stomach. The same journalist has an interesting piece of commentary from the battlefield itself:

Group after group walked forward, sat down, and submitted to being beaten into insensibility without raising an arm to put off the blows. Finally the policemen became enraged by the non-resistance, sharing, I suppose, the helpless rage I had felt at the demonstrators for not fighting back. They commenced savagely kicking the seated men in the abdomen and testicles. The injured men writhed and squealed in agony, which seemed to inflame the fury of the police, and the crowd almost broke away from their leaders.

(Ibid., pp. 40–41)

Before I comment on this, it should be mentioned that already in April a “large quantity of contraband salt was forcibly seized”; “later a large quantity was sold or distributed in the village of Dandi” (ibid., p. 32). Later, salt

was carried away—in Wadala, “sackfuls”; in Karnatak, “thousands of mounds of salt” (ibid., p. 41). One must presume that the briefing of the police before the clash with the raiders at Dharasana included a justified prediction that they would take away salt.

Now, if there is any situation in which policemen feel completely justified in stopping people with forcible means, it is where they are trying to steal private or public property. When salt is forcibly seized, policemen tend to believe it is stolen, and they act accordingly if not convinced by outsiders that what is going on is not theft.

The policemen at Dharasana must have looked on the campaigners as raiders, as private citizens trying to get hold of large quantities of salt. It is quite a different thing to try to stop people from making their own small quantity of salt out of seawater or to demonstrate for the right to do so.

Our conclusion is therefore that the preliminaries before taking up direct action were not taken care of in the salt raids of May and June 1930. The campaigners provoked and invited violence from their opponents (cf. *N*₈, p. 74).

When the police find themselves justified in brutal beatings, and their opponents do not stop their direct action, the effect may well be as the journalist Miller described it: the police become more enraged and lose control over themselves. This effect is the opposite of that intended by *satyāgraha*. The opponent must not be made to debase himself, to lose face. And one must renounce the propaganda value of displaying police and others who have lost control over themselves or are committing atrocities.

The salt raids were inconsistent with the *satyāgraha* norms in several respects: on meeting the opponent, in this case the guardians of the salt depots, there was no sustained effort to communicate with them. If it is argued that the real opponent was the viceroy and other high officials, a distinction then becomes highly relevant—between direct and indirect, near and remote opponents. Gandhi worked by personal contact, and during a direct action, it is always the near, not the remote, opponent who is to be met and persuaded.

The leader, Mrs. Naidu, asserted, as if it were already a fact, that the campaigners would be clubbed down. Therefore, no effort to communicate could reasonably be made as part of the campaign action. Perhaps it was not practically possible? The available sources do not discuss the point.

NONVIOLENCE AND THE “NEW VIOLENCE”

Further, it may be argued that the objective of the action was not properly defined. What was “to take possession” to mean? What was the relation between a law forbidding the *manufacturing* of salt to an action by which possession of already manufactured salt is proclaimed?

The objective of the action was at least not justified explicitly, it seems. The characterization (used by Tendulkar, Fischer, Bondurant, and others) of the action as a raid was unbiased, but not the phrase used by Gandhi when saying that the action had been “playfully and mischievously” called a raid. There is no clear indication that the action was not properly called a raid, and raids are certainly not 100 percent pure *satyāgraha*.

The actions themselves included important features in addition to the proclaimed objective: salt was removed and transported to unknown places, sometimes in great quantities. This exemplifies a breach of N_{25} (“During a campaign, do not change its objective by making its goal wider or narrower”). Does taking possession of include transportation and distribution? It seems that if there was a plan for how to use the salt or operate the works, the opponent ought to know about it. In a future nonviolent society, distribution and use of salt will have to be regulated somehow. The raid did not picture an ideal future situation.

Are we then forced to conclude from the foregoing that the so-called salt raids in 1930 do not exemplify *satyāgraha*? Not quite. First of all, the available historical sources are incomplete. Further, there is a wide margin of uncertainty regarding what might have been done but was not done, or what was done but did not work.

Second, the confrontation of an actual campaign with a systematization containing 25 norms can reasonably only have the aim of finding out how far and in what features the campaign differs from a campaign satisfying to an ideal degree all the norms. It would be unreasonable and unjust to limit the designation *satyāgraha* to campaigns completely satisfying all the norms. In such a case, Gandhi would not have carried through a single *satyāgraha* campaign. “I know what an inadequate follower I am of myself, for I cannot live up to the convictions I stand for” (Bose 1957: viii).

Conclusion

A confrontation of the New Violence with Gandhian nonviolence reveals similarities. Some key phrases:

Conclusion

1. Extreme activism.
2. Impatience: result now!
3. Concern for self-respect and personal identity.
4. If you lack self-respect, retaliate rather than submit to insults.
5. Make plans for parallel business and institutions.
6. Suppression, exploitation, and manipulation are forms of violence.

But there are also deep divergences:

1. Short-term physical and verbal violence may reduce long-term violence.
(Rejected by Gandhi, accepted by New Violence)
2. Fight antagonisms, not antagonists.
(Accepted by Gandhi, in part rejected by New Violence)
3. Hate suppression, not suppressors.
(Accepted by Gandhi, largely rejected by New Violence)
4. There are always basic interests in common.
(Accepted by Gandhi, rejected by New Violence)
5. First destroy all that is bad, then start building.
(Rejected by Gandhi, accepted by some New Violence leaders)

The outlook for the future is in some respect encouraging from the point of view of Gandhian thinking. The T.C.B. slogan of New Violence indicates a resolve to build up parallel institutions and furnish a constructive program.

V

Comparison with Certain Other Philosophies of Conflict

Luther and Gandhi

We hope now to have given a fairly clear, if not wholly complete, picture of Gandhi's ideas and intentions in the limited area of group conflict. Let us compare them, then, with what we know of the ideas and intentions of some other men who have lent their minds to the problems of conflict. Such a comparison can do more than put the Gandhian approach in clearer perspective. It can tell us where the comparison and contrast of different views can significantly be made and where it must fail.

There are few contemporaries who would call themselves Lutherans, but Lutheran views have contributed significantly to the political ethics of some Western countries. We find Martin Luther's views on group conflict in his doctrine of the two regiments, or realms, the spiritual and the worldly. The worldly realm, which is in a sense the kingdom of evil and which exists only because there is evil in man, is the world of militarism. God has laid the world of evil beneath the sword, as men have put wild beasts in chains.

Luther's two regiments cannot be straightforwardly identified with the church and worldly power. The Swedish theologian Anders Nygren puts Luther's view in this way:

In the worldly regiment God will maintain justice and peace, and the means he uses in this regiment are power and the sword. In both the one and the other kingdom he uses men as his servants. (Nygren 1942: 99)

Princes, soldiers, and those who are subjected to imprisonment are all servants of God. Nygren goes on:

Through the gospel God rules his spiritual kingdom, forgives sins, justifies and sanctifies. But in no way has He thereby made the worldly regiment out-dated,

COMPARISON WITH CERTAIN OTHER PHILOSOPHIES OF CONFLICT

or done away with it. In its domain the worldly regiment shall rule with power and the sword. If one tries to inject the gospel into its regime, then one commits a two-fold sin, and so will be doubly punished. Primarily one corrupts the gospel; but in addition to this one harms and corrupts the world.

(Nygren 1942: 99)

The gospel is not to be used in order to eliminate militarism, for that would be to corrupt the gospel. Luther himself says:

If someone will rule this world according to the gospel and abrogate all worldly justice and the sword . . . [w]hat will he accomplish thereby? He will turn loose the wild, evil beasts from their bonds and chains.

(Ibid., p. 101)

The substance, then, of Luther's view seems to be that if one interferes with the worldly regiment, the very few good people who do live according to the gospel will be killed. In his 1527 treatise *Ob Kriegsleute auch in seligem Stande sein können* (Whether the soldier can be considered a Christian), Luther says:

Therefore God also sets the sword on high, which obeys his will, and does not want man to say or to believe that man has discovered it or invented it. For the hand which uses this sword and kills is no longer a human hand, but God's hand, and not man but God hangs, breaks on the wheel, delivers, kills, and makes war. All the work and the justice are his. [Editor's note: Naess's translation]

For our own purposes, Luther's separate points can be listed as follows. No effort is made to reduce their harshness:

1. War and other forms of organized physical violence will and must continue indefinitely. To try to eliminate these evils is to interfere with God's rule.
2. Political life will remain essentially the same. Defense against autocracy is therefore in vain.
3. Treatment of lawbreakers will and must continue as it was in the 1500s. "Good men," as he says, must be protected against "wild animals" by any means.
4. Even if administrative institutions in a state cannot be wholly identified with God's worldly kingdom, their connection with God is nonetheless so close that any change in the institutions is tantamount

to a change in God's own regime. Thoroughgoing reforms must therefore be interpreted as rebellion against God. It is the duty of every ordinary person to obey the ruling powers. But there are, according to Luther, certain interesting exceptions. A tiny minority has the right to disobey the ruling classes. In order to have that right, one must be a so-called *Wundermensch* (miracle man), that is, one must have a special commission from God to go against worldly power. Such commissions Luther considered to be very rare. But he thought of himself as one such *Wundermensch* when he nailed his theses to the church door.

5. Luther divided men, as we have said, into the good and the evil and did not count on the possibility of the good exerting any decisive influence on the evil. The good men, the real Christians, were, according to Luther, few in number, perhaps no more than one in a thousand.
6. Evil men will not flinch from exterminating the good men if the worldly regiment did not use the sword to protect them. Luther compared evil men to wolves who would devour the sheep if the sheep were not protected. This situation would be especially serious if there were a thousand wolves to each sheep! It is no more than reasonable under such circumstances to sanction any imaginable means of defense, especially since the use of brutal means by good men does not, according to Luther, make these men any less good.
7. God sees to it that princes and other men in power are more or less morally superior to the masses. Those who have become rulers may be assumed to have certain powers that their subjects lack. There are exceptions, however.
8. There are two moralities, individual morality and the morality of rulers, or, rather, common morality and superior morality. "Thou shalt not kill" holds for the commonalty, but not for the ruling order. At times, however, the commonalty may kill: "Thou shalt not kill" and "Thou shalt not torture" need not hold for them either; as servants of the ruling order, they do have the right and often the duty to kill, but never on their own initiative.
9. The morality of the ruling order follows the "law of justice," that of the subject follows the "law of love." This is not the case, however, in situations in which commoners carry out the wishes of the ruling

COMPARISON WITH CERTAIN OTHER PHILOSOPHIES OF CONFLICT

order. In such cases, in war, for example, to follow the law of love would be to rebel against God.

Much of the harshness of Luther's teaching is thought to be inseparable from the spirit of his age. It has therefore been considered unjust to compare him to such a man as Gandhi, who lived in an age that had more or less rejected the idea of the innate goodness of the ruling classes. Let us remember, however, that there are still people today who support Luther's teaching, accepting even its harshest features. There is therefore more than academic interest in a comparison between Gandhi and Luther. It should also be remembered that some people at the time of Luther courageously condemned the cruelty and fanaticism of his teaching. Erasmus is an example.

Gandhi and Luther both criticized the political and personal conduct of their age. But Gandhi thought it not only possible, but desirable, to effect radical changes, and should such changes require the elimination of certain institutions, so much the worse, he felt, for those institutions. Institutions themselves were, for Gandhi, far from divine. War and the threat of war, for instance, were bad institutions. The structure of society needed to be changed, but it was not necessary to be a superman or a *Wundermensch* in order to oppose ruling authority.

Gandhi wanted revolution, but not violence. He saw how Hinduism had become decadent, and he wanted to purify it. Until late in his life, he considered that the original caste system (with only four castes, each having equal status) had a valuable core, but that it had grown corrupt over the centuries. Such an institution was not to be eliminated, but restored. Toward the end of his life, he proclaimed that "caste must go root and branch."¹ In short, even if there is much evil in the world, even if human institutions are never perfect, passivity in the face of evil is, according to Gandhi, altogether unjustifiable. For Luther, matters stood quite differently. No existing institution could, in principle, be bad, for God had created it. Although those who supported such an institution could be evil, as when a ruler conducted an evil war, the repetition of this evil could, according to Luther, only be avoided by the ruler's being converted and becoming a true Christian. If a Christian were to start not only good wars, but also an evil war, he would no longer be a true Christian. Evildoers may be done away with, but not institutions and their representatives.

Whereas Luther thought that since the office a man held was inviolable and that the tenure of that office afforded such a man the personal rights of respect and nonviolation, Gandhi felt it was the opponent's person (and not just his body) that was inviolable and that his acts as a representative of a ruling order were something that could be systematically opposed. Gandhi respected persons, not systems; Luther respected systems, not persons. In Gandhi's anti-British campaign, for instance, the Prince of Wales was boycotted as a representative of the ruling order, but as a man and an individual he had to be accorded every respect; neither he nor the opponents of the boycott were to suffer any injury.

Gandhi felt not only that maltreatment and torture must cease, but also that imprisonment must be abolished altogether. No distinction, said Gandhi, should be made between the law of justice and the law of love. There exists only one morality, the morality of love, and according to this morality, all people, commoners and rulers alike, stand on the same level.

Furthermore, from a moral point of view, no man can act for another man: if the hangman is to justify himself, he must do so only within his own personal morality; his role or function provides him with no excuses or justification. The basis of Gandhi's teaching in connection with group conflict is that men, wherever they have dealings with one another, must meet and interact as individual persons, not as representatives, functionaries, or underlings (see *N_{4b}*, p. 65). Every man is more than the sum of his functions, and what he cannot excuse or justify in terms of his totality is not to be excused or justified in terms of those functions.

In the systematizing of Gandhi's norms of conflict behavior it is unnecessary to introduce the highly controversial and philosophically difficult distinction between moral norms and norms that it would be ethically or strategically bad but not morally bad to break. Similarly, it is not necessary to specify whether on given occasions the verdicts bad and good are moral judgments or not. When used without specification, good and bad relate to the goals articulated in the systematization. Something is good if conducive to the realization of those goals. This is a test or criterion, not a definition.

The above paragraph is a preliminary to what follows. We are going to use the terms *good* and *bad* rather freely! All men are susceptible to influence, but not, indeed, to influence by just anyone. The more a man has developed, the greater the possibilities of his being susceptible to a good

COMPARISON WITH CERTAIN OTHER PHILOSOPHIES OF CONFLICT

influence. Gandhi's view is usually summed up as perfectionism (better, perfectibilism) or meliorism. Man can always change: "[H]owever debased or fallen he may be, [he] has in him the capacity of rising to the greatest height ever attained by any human being" (*Young India* 9.5.1929; quoted in Gandhi 1949b: 56).

Furthermore, an action may be good or bad; not so a man. If we talk about good and bad persons, our statements must be understood in reference to the actions and attitudes of persons, not to the persons themselves. A man may behave like a lamb or like a wolf, but this makes him neither a good nor a bad man. Luther thinks otherwise, and here he perhaps has most moralists on his side.

The point is essential to Gandhi's *satyāgraha*, for that way of trying to solve conflicts would certainly be a tragically vain one if one did not believe that one's opponent could be influenced by appeals to head and heart.

Luther wanted above all to bring himself into agreement with the Bible and was a member of a powerful biblical tradition of pessimism about the world and earthly existence.

In this connection, Albert Schweitzer's interpretation of Christianity is highly relevant. Johan Hygen states that as far as his views on the New Testament are concerned, Schweitzer represents the "consistent eschatology":

The religion of Jesus, according to Schweitzer, is not a religion which wishes to remake the world, but a religion which lives in expectation of the world's end. Its view of the world is pessimistic. Along with this interpretation of the earliest Christianity, Schweitzer maintains that the increasing dominance of the optimistic element came in at the Renaissance as a result of our somewhat changed attitude to the Christianity of the first centuries. It was a structural change. Indeed Schweitzer goes so far as to say that in exchanging optimism for pessimism Christianity lost its original essence. (Hygen 1954: 59)

Since early Christians expected the end of the world to come any day, there was little reason for them, downtrodden as they were, to try to change the Roman Empire and its institutions. They might attempt to convert an occasional member of the ruling order, but what would be the point in trying to change institutions just as the world was coming to an end? If one believes, however, that the end of the world is some way off, one's interest in institutions and the possibility of putting them to rights may grow considerably. Luther, on the other hand, in trying to retrace the progress of his

church back to early Christianity, unquestioningly took over the traditional view of the imminent end of the world.

We referred above to some of the tacit assumptions in Luther's teaching — assumptions about the immutability of the worldly regime, among other things. If Luther's social ideas are to provide us with any guidance today, we must believe that Luther made use of these assumptions about the worldly regime quite consciously. On the other hand, we may well doubt that he went at all deeply into worldly or social questions. His main wish, after all, was to be a guide to his own age, and we do him an injustice if we see him as trying to provide basic truths of sociology.

Most theologians recognize the uncertainty of determining what Luther's views would be if he lived today. For instance, there is some controversy about how to interpret the expression "just war," which Luther used to designate wars that he approved. A just war has been traditionally interpreted as one that is declared by a country's legal government, but this interpretation is now looked on as being as much a product of his age as was the Augsburg Confession. We cannot argue, that is, that Luther's views would imply his advocacy of just warfare today. The question of his position in contemporary controversy in this respect is still, and must remain, an open one.

According to their interpretations of Luther and of the evangelic Lutheran faith, most Lutheran theologians have felt that both the man and the faith are at a very great distance from Gandhian political morality. Nevertheless, there has always been among Lutherans a current of nonviolence. There is a widespread feeling that attitudes have changed a good deal since Luther's day, and some tend to think that the sixteenth article of the Augsburg Confession provides an adequate basis for Gandhian-like decisions on matters of politics. The words of the Lutheran creed can be given a meaning that includes sympathy with Gandhi's political morality; but they can also be given an interpretation that includes sympathy with a diametrically opposed morality.

Among dignitaries of Christian churches today, the most ardent adversaries of nonviolence are perhaps those who do not concentrate on how to make men obey the law of Christ, but on how to deal realistically with groups considered to be the most disobedient. According to Reinhold Niebuhr:

[There] is not the slightest support in Scripture for this doctrine of nonviolence. . . . It is rather remarkable that so many modern Christians should be-

COMPARISON WITH CERTAIN OTHER PHILOSOPHIES OF CONFLICT

lieve that Christianity is primarily a “challenge” to man to obey the law of Christ, whereas it is, as a matter of fact, a religion which deals realistically with the problem presented by the violation of this law.

(Davis and Good 1960: 140, 148)

Reinhold Niebuhr, like Luther, sees the camp of good people surrounded by hordes of bad and stresses a need for military “defence” against the bad (*ibid.*, pp. 300–302). In Gandhi’s thinking, on the other hand—his identification with hooligans, criminals, and even foreign aggressors—prevents him from seeing the world in black and white. It also makes him eager to meet the “bad” people—the murderers, fanatics, and exploiters—in his search for a way out of devastating conflicts.

Nietzsche and Gandhi

It is a simple matter to set Friedrich Nietzsche and Mohandas Gandhi in opposition to one another; in fact, one may think it too easy to be interesting. Nietzsche’s views on war and his expressed admiration for Napoleon and other great warriors of the past offer what looks like an absolute, and therefore unrewarding, contrast with Gandhi. Furthermore, insofar as Nietzsche contributed little to political morality, directly or indirectly, it surely does no justice to the great philosopher-poet to enlist him into the ranks of political philosophers. Nevertheless, the attempt to do so has been made. It is therefore valuable to clarify those points at which Nietzsche’s views seem vulnerable to such wayward interpretations as we find, for example, in Sorel and the National Socialists, and, of course, it is at times useful to see just where comparisons cannot be made.

Consider first Nietzsche’s views on war. How are we to interpret his approval of war, violence, and cruelty? There are two traditional interpretations of Nietzsche, the external-literal and the internal-symbolic. The literalists take Nietzsche at his word: wars can, generally speaking, be good things. According to Nietzsche, however, contemporary wars, including the Franco-Prussian War, were inglorious affairs. The Prussian victory over France was no victory at all, and the Era of Bismarck was an era of “Germans made stupid”! Could the only fault of contemporary warfare be its ingloriousness? Would wars, shorn of their accidental ignobility and tricked out with a few positive characteristics, be quite all right, or even desirable?

The answer must be a firm no. Even if Nietzsche, in his conversation and diaries, had shown enthusiasm for contemporary wars and violence because they served the repression of the physically and economically weak, the validity of the external-literal interpretation of Nietzsche's works would still not be established.

Nietzsche showed little inclination to engage personally in political controversy or group struggle. It is without undue exaggeration that Marius P. Nicolas could say, "Neither directly nor by implication, neither in practice nor in theory, was Nietzsche ever concerned with politics" (Nicolas 1938: 125). Sources for studying Nietzsche's life often lend themselves to interpretation by means of individual, rather than social, psychology. This seems evident at least in the cases of the biographical studies by Elizabeth Förster-Nietzsche, A. Ahlberg, Carl Roos, and Hugh A. Reyburn. The difference in the scope and quality of the critical literature in the cases of Nietzsche and Gandhi is enormous. Compared with Gandhi, Nietzsche is almost unknown to us.

It would require too much space to launch into a detailed justification here of the internal-symbolic interpretation of terms in Nietzsche's works such as war, cruelty, and violence and to define them in terms of inner struggles or conflicts fought in the mind by those concerned with their own weakness. Suffice it to say that Nietzsche seems clearly to have conceived himself to be continually declaring and waging "wars." These could not be meant otherwise than symbolically. Of his book *Human All-Too-Human* he writes that it constituted "a hundred-fold declaration of war." He fought established Christianity with the same intensity as did Kierkegaard. "It is now that we shall need warriors," he remarked after the immense Prussian so-called victory at Sedan. These and other sayings show his preference for a martial vocabulary, which, however, omits entirely any reference to international relations. Attempts, therefore, to construct a political morality or a theory of group conflict on the basis of Nietzsche's writings would seem doomed to failure. Comparison with Gandhi at this level, then, is impossible.

But what about Nietzsche's noble warriors? Are they anything like Gandhi's *satyāgrahin*? These warriors are courageous, and honest, and they are masters of open combat. They make sacrifices, take responsibilities upon themselves, and never extol suffering. They are truth seekers, free spir-

COMPARISON WITH CERTAIN OTHER PHILOSOPHIES OF CONFLICT

its and their personal *Weltanschauung* is the arbiter of all their decisions. They neither evade issues, shun conflicts, nor flee from fearful, even deadly, consequences, but hold their ground, come what may.

Gandhi expected similar qualities of his *satyāgrahin*; in fact, he has often been criticized for the harshness and cruelty of his demands. His admiration for the proud but warlike Pathans and his criticism of the weakness of some Hindus seem to reflect an uncompromisingly strong and militant attitude.

No systematic comparison of Gandhi and Nietzsche, however, is possible even in this area. The problems involved in interpreting the two men are vastly different. Nietzsche, perhaps intentionally, never makes it clear when he is trying to convey something in a highly suggestive but not fully literal way as opposed to when he intends people to be able to point to some sentence and say, "There, that is what Nietzsche thinks about it." In other words, whereas Nietzsche talks to us through an opaque screen of inspiration, Gandhi utters the most direct statements in the simplest of prose.

Furthermore, if we can talk at all of Nietzsche's system of morality, it is clear that we can say that it lacks any account of how to proceed or what to expect in particular situations. His statements about contemporary events are confined to remarks about, inter alia, wars, Jews, the British, the French, and so forth. The generality of such references lends support to what seems the correct way of interpreting Nietzsche, a way that implies that these general statements are less straightforward references to real instances than illustrations of aspects of the great struggle man must have with himself if he is not to be destroyed. The key, it would seem, to much of Nietzsche's discussion of war in *Also sprach Zarathustra* is to be found in the statement "Your highest thought shall thou let me bid you and cry out: Man is something that shall be overcome."² The picture we are given of contemporary man is of a weak and cowardly being, passive, compromising, dishonest, evasive and foolish, a being that feels compassion but refuses to commit itself to the hazards of moral action. The man Nietzsche would conquer is a self-abnegating, un-self-realized man. Self-realization is a matter of self-conquering, insofar as the self must be overcome. This notion of annihilating the weakness of man and thereby admitting a great self that has no known bounds is perhaps the main principle that emerges from any prolonged acquaintance with the works of Nietzsche. Here Gandhi and Nietzsche agree.

For Gandhi, self-respect and self-realization require the expansion of the self. His self-lessness has as its opposite egotism and self-abnegation.

It is impossible, however, at least at the present time, to explicate any further principles in Nietzsche's philosophy that would allow us to compare the Nietzschean system with others. As for Nietzsche's connection with Gandhi, although we can say they have certain values in common, such as fearlessness, we can say little more.

Tolstoy and Gandhi

Leo Tolstoy was Gandhi's great inspiration in the latter's efforts to evolve a theory of politics that could accommodate his moral system. With regard to opposing the powers that be, Tolstoy was the more radical and uncompromising of the two. In specifying very clearly how the authorities should be approached in an actual conflict, Gandhi expressed his belief that there are times when a good cause can be supported by working together with the authorities, even though they are responsible for violence and oppression. Tolstoy's belief seems to have been, on the contrary, that a good cause can never be supported in this way. In one important respect, then, Gandhi appears to have differed from his main source of inspiration.

In his detailed accounts of the cruelties inflicted on the peasants by the czarist authorities, Tolstoy gives free rein to his indignation. There is never a hint of any possibility of future cooperation with the perpetrators of such terrible violence. He writes as though he intended to convey to his readers a mood of hatred not just for the institutions, but for all of their representatives as well.

With Gandhi, it was quite otherwise. He presents the assaults and injuries suffered by himself and his followers in such a way that we are roused more to sorrow than to hatred and to a willingness to fight the causes of animosity and distrust rather than to a desire to wreak vengeance on the offenders. Gandhi had a rare gift for the vehement condemnation of an act without condemning its agent. His unwillingness to make personal accusations extended to fanatics and terrorists since even they were to be regarded as potential fellow workers. They were truth seekers, just as he was. They were trying to influence in their direction, he in his. No one possessed the truth, everyone erred more or less, and no one could know his own error but

COMPARISON WITH CERTAIN OTHER PHILOSOPHIES OF CONFLICT

by further nonviolent struggle. In this truth seeking, no one could be written off; no one was beyond redemption.

The tone of Gandhi's writings differs from that of Tolstoy's as the mental attitude of a builder does from that of a destroyer. Romain Rolland, in his book on Gandhi, written in 1924, said with some justice:

With Gandhi everything is nature—modest, simple, pure—while all his struggles are hallowed by religious serenity, whereas with Tolstoy everything is proud revolt against pride, hatred against hatred, passion against passion. Everything in Tolstoy is violence, even his doctrine of nonviolence.

(Rolland 1924: 147)

This is vast exaggeration but it points to a central difference of posture, a difference relevant in recent years between Tolstoyan haters and destroyers of the establishment and Gandhian builders of new lifestyles.

In his "Letter to a Hindu," Tolstoy interprets the holy writings of Hinduism to be consistently of a nonviolent character.³ Of one of these scriptures, the Hindu Kural, he says:

The aim of the sinless One lies in not doing evil unto those who have done evil unto him. Even if a man causes suffering to those who hate him without any reason, he will ultimately have grief not to be overcome. (Nag 1950: 86)

But there is more than enough grief in the world, and the sinister Tolstoyan prediction of grief not to be overcome goes against the *karmayoga* function of the Gandhian approach. If he harbors a "grief not to be overcome," whatever the cause of the grief, the Gandhian *yogi* of action will work to eliminate just that grief.

Following these passages from the Kural, Tolstoy, in referring to attitudes in Russia and Europe, concludes:

The recognition that love represents the highest morality was nowhere denied or contradicted, but this truth was so interwoven with all kinds of falsehoods which distorted it, that finally nothing of it remained but words. It was taught that this highest morality was only applicable to private life—for home use, as it were, but that in public life all forms of violence—such as imprisonment, executions and wars—might be used for the protection of the majority against a minority of evil-doers, though such means were diametrically opposed to any vestige of love. (Ibid., p. 86)

Lenin praises this criticism of injustice and exploitation but condemns Tolstoy's doctrine of nonresistance and the lack of a program of action (Gandhi 1958, vol. 15: 202–09; vol. 17: 49–53).

Tolstoy paints a dark picture of the terrifying perversions into which this highest of moralities has today been transformed, but he does not call on those who still uphold such a morality to act in defense of it. In fact, in one of his letters to Gandhi, Tolstoy went so far as to say that “as soon as resistance is admitted by the side of love, love no longer exists” (Nag 1950: 72). Gandhi did not resist evil—he ignored it. Gandhi wanted to build; he wanted to evolve and test a strategy that aimed at reestablishing respect and faith in the morality of love. It was essential, moreover, that this be done with the cooperation of those responsible for the distortion. He did not resist their game but started his own. His principles invited such cooperation, a cooperation his trust in human nature allowed for as a possibility. Cooperation, and inevitably compromise, with men of authority led to Gandhi's accepting, for the time being, a number of disagreeable features in the existing institutions. This earned him the alarmed protests of the Tolstoy camp, which rejected any kind of cooperation with any state institution.

Vain protests! The program of Gandhi was to cooperate as much as possible with the leaders of institutions without committing himself to acceptance of those institutions. He cooperated with jailers but never accepted the institution of imprisonment. The Tolstoyans did not accept the distinction between man and institution. Gandhi, on the other hand, was not always able to be entirely consistent in his applications of the distinction.

In terms of his own political strategy and in contradistinction to those of Tolstoy, Gandhi was able to lay stress on the not always sinister aims of those who did violence, and he rejected, moreover, the idea that the negative value of an action increased proportionally to the intensity and extent of the violence employed in it. His attitude toward representatives of vast military organizations was therefore not, as in the case of Tolstoy, one of abhorrence. Gandhi could admire those who fought in a way they considered to be appropriate for what they deemed right; if this involved violence, then it should be remembered, said Gandhi, that such people are also more likely to be courageous enough to employ nonviolent methods than are those who habitually avoid all physical conflicts. The absence of physical violence

can be due to cowardice; its presence may be due to love. Gandhi defended lovers of a pure Hindu society who tried to kill him. They had the courage to do what others only wished. Gandhi sought, however, to lead the force of love into constructive channels wherever it had gone astray, and he was always ready to meet men to try to persuade them to relinquish their trust in violence as a method.

Unhappily, the Gandhian approach is not readily taken up by people who today feel more or less helpless in their relations to "the establishment." They are more likely to join a Tolstoyan camp of haters and pessimists, of nonresisters or of promoters of violence.

Jaspers and Gandhi

Karl Jaspers (1883–1969) is one of the few philosophers of this century who commands respect in all quarters as a sincere, intellectually honest, erudite, and versatile philosopher. Starting as a psychiatrist, he soon developed a comprehensive view of history, society, and man. Unlike some of his colleagues, he courageously stood up against Hitler's repressive bureaucracy. He was dismissed as a professor in Heidelberg in 1937 but was reinstated as director (*Rektor*) in 1945.

Jaspers's close experience of overwhelming terror left a deep imprint, and he may well count as one of the weightiest doubters regarding the outlook for nonviolent overthrow of terror regimes. But the same experience made him also a staunch believer in the necessity and feasibility of infusing something suprapolitical (*überpolitisch*), something over and beyond politics, in the aims and workings of politics: an ultimate aim, a quest for freedom, dignity, and justice to direct the day-to-day efforts of the struggling politician.

In his *The Future of Mankind*, he uses the phrase "politics as such" in the sense of rather tough *Realpolitik*, taking it as axiomatic that the aim of politics as such is power and the increase of power — without any further aim except the personal aggrandizement of the politician. Gandhi's experience in South Africa and India did not induce him to accept this rather pessimistic view of the self-realization of politicians!

A politician cannot as such possibly have anything against violence or even large-scale terror, Jaspers maintains, except out of a purely opportunis-

tic regard for rapid success. "Politics is essentially a commerce with *Gewalt*" (Jaspers 1958: 63).⁴

Now, what is *Gewalt*? Here we touch on an important ambiguity in German philosophy of history and politics. The term oscillates in its use between the fairly general one of "power" ("being able to") and the more specific one of "violence" (or "coercive, repressive capability").

When Jaspers declares that with abstinence from *Gewalt*, "politics comes to a halt," it is clear that he has a surprisingly broad concept in mind because in the following, he suggests that only in very special circumstances have very few individuals abstained from the use of *Gewalt*:

This has actually happened in the lives of the saints who followed the Word from the Sermon on the Mount: "Resist not evil; but whosoever shall smite thee on thy right cheek, turn to him the other also." Where such a life remains consistent it has its own dignity, however undignified it may be politically. It is a life that is heedless of either living or not living, a life indifferent to itself, existing because of chance and circumstance, entirely absorbed by something outside this world, to which the world does not matter.

(Jaspers 1961: 63)

The saint perpetually hiding himself in the desert not only renounces violence, but renounces his potential to exercise the power of influence. But a person making use of his full power to convince rather than coerce cannot be said to be "entirely absorbed by something outside this world." In the above quotation, Jaspers therefore has in mind a renunciation of power in an extremely wide sense, for instance, of "interaction with others." He does not answer the question "Is politics without violence but with exercise of power an absurdity?" Jaspers's reference to religionists who manifest extreme indifference toward political questions does not allow him to give a clear answer.

But let us look at the following syllogism: "Politics without *Gewalt* is an absurdity. Gandhi made politics. Therefore Gandhi realized the absurd."

Jaspers actually draws such a conclusion. Gandhi willed the impossible: politics by nonviolence (*Gewaltlosigkeit*). He had great success: the liberation of India. So the impossible is possible?

Jaspers's ultimate answer is no. Gandhi used *Gewalt*, not physical, but moral. He merely shifted from one form of *Gewalt* to another.

COMPARISON WITH CERTAIN OTHER PHILOSOPHIES OF CONFLICT

At this point, the nearest verbal equivalent of *Gewalt* is *compulsion*. According to Jaspers, Gandhi *compelled* the British to withdraw because the moral sensibility and the high moral ideals of the British made it impossible for them to resort to systematic terror against the Indians. Terror, if in sufficient doses, always succeeds politically:

Absolute rule is impossible whenever it does away with restrictions and qualms, whether in naive political action or by referring to a revealed deity. Such terror makes for submission, in which proud nations that value their freedom will perish. Nations do not react alike. (Jaspers 1961: 38)

We can no longer doubt that unlimited terror will destroy all resistance that does not consist of equal physical force. The subjection of Hungary has shown to the dullest eye that the totalitarian Russian terror would have preferred Hungary as a desert to Hungary free. Against total violence there is no help in less violence, nor in nonviolence. (Ibid., pp. 39–40)

Apart from the implausibility of the idea of a nation being destroyed without its own help, the conclusion does not follow from the premises as far as they concern the strategies of Gandhi. The premise “Gandhi made politics” is correct, but the other premise, “Politics without *Gewalt* is an absurdity,” perhaps only holds for the very wide concept of *Gewalt*, the concept of interaction with others or influencing others. Jaspers has only referred to the fact that saints in deserts cannot make politics. There we can agree!

We must therefore formulate a second syllogism: “Politics without exercise of power *in any form* is an absurdity. Gandhi made politics without using the form of power of violence and preponderantly without even the use of a subspecies of violence, coerciveness. Therefore, Gandhi realized the absurd.”

The conclusion is clearly wrong. Only if Gandhi renounced power of *any* form does the conclusion follow. Actually, Gandhi is completely clear in his acceptance of the use of power, and the translation of *satyāgraha* into “soul force” or “moral power” strikes something essential. His stress on activism, his aim to influence, is a central feature of his teaching. An increase in self-realization involves an increase in “power to,” not “power over”—an increase in ability to reach one’s goals, not an increase of domination.

Let us then go back to Jaspers’s conception of Gandhi’s relation to the empire: Gandhi used the nonpolitical moral principle of the British to

compel them to give up India. He did not resort to this act of blackmail (*Erpressung*) consciously. On the contrary, he tried to avoid compulsion and stopped a *satyāgraha* if it developed into violence. He denounced moral coercion and tried, sometimes unsuccessfully, to eliminate moral coercion from his fasting.

The success of Gandhi's method is, according to Jaspers, relative to a set of moral values: it presupposes an opponent who would rather relinquish power than transgress his own morality. Without saying as much, however, Jaspers implies that the imperial policy of Britain was suprapolitical—that goals of justice and morality intruded into it in a decisive way:

It was only under the British, and only under their attempt at liberal rule which is unique in the history of empires, that Gandhi could succeed. Never before would such nonviolent policies have led to the same outcome, and in the future they could lead to it only under conditions analogous to British liberalism, freedom of speech, and legality. The liberation of India is far more a matter of British politics, far more the consequence of England's struggle with herself, than it is an Indian feat. (Ibid., p. 38)

Before critically discussing this point of view, we shall continue our presentation of Jaspers's view.

Extreme terror can only be met and conquered by violence (*Gewalt*). Whatever the outcome, the violent resistance against terror has a value in itself. It exemplifies the kind of sacrifice human beings must continue to perform in order to remain human. Life is not worth living when the eventual sacrifice of it is not accepted.

But bound up with the sacrifice is something timeless, hypersensory, and unconditional. Even if "useless," it is not "senseless." (Ibid., p. 43)

A lasting peace could only be achieved if the greatness, the strength, and the valor of the sacrifice hitherto shown in history by the soldier would now materialize in no lesser form. (Ibid., p. 56)

The responsible politician in an extreme situation must, according to Jaspers, use violence and order the soldier to kill. However, he cannot wholeheartedly will this killing because "thou shalt not kill," and he cannot accept the convenient distinction between private and state morals. He must,

COMPARISON WITH CERTAIN OTHER PHILOSOPHIES OF CONFLICT

as “ethician of responsibility” (*Verantwortungsethiker*) remain permanently in a state of immense (*ungebeuer*) strain.

Jaspers here lets his eminent compatriot Max Weber speak:

So Max Weber asks, ‘What kind of man must one be to put one’s hand in the spokes of the wheel of history?’ And he sees it as immensely moving when someone who feels responsible for the consequences—directly and wholeheartedly—at some point says: I cannot do otherwise, here I stand. For this situation must sooner or later confront all of us who are not dead inside.⁵

(Jaspers 1958: 77)

The limited aim of our comparison compels us to make a stop here. The question must be answered, How do Jaspers’s views (1) of Gandhi and Gandhi’s campaigns and (2) of *satyāgraha* compare with the views presented in the previous chapters?

It seems that for Jaspers, Gandhi’s political activity consisted only of fighting for the political independence of India and that one of his decisive weapons was that of coercive fasting. This is surely a one-sided view. In our presentation, we have stressed the other politically relevant campaigns in South Africa and elsewhere. Gandhi saw no ultimate aim in political independence from Britain, and only a fraction of his work was devoted to that end. Most of his *satyāgraha* was devoted to internal politics. On the day of independence, August 15, 1947, he, of all leaders, refused to deliver any public message. He fasted and prayed. His more important goals were as far away as ever.

It is generally doubted that Gandhi used fasting consistently in accordance with the norms of nonviolence, and Gandhi himself is one of the doubters. In certain cases, his fasting was a threat. His 1947 fast in Calcutta was of a terrible kind insofar as he pressed his followers to make the leaders of the riots sincerely promise not to continue rioting. Without this pressure, his followers would presumably not have tried so desperately to convince the rioters of the futility of rioting. Without the threat of fasting to death, rioting might have continued in East Bengal. There is, of course, no theoretical reason to believe that *only* a fast by Gandhi at that time could have elicited such a great effort to find and persuade the rioters. In this case, as in most others, we are not warranted in concluding that no other kind of action on the part of Gandhi—and Gandhi mastered a great number of different kinds of direct action—could have

brought about the same result or, even more absurdly, that nonviolence in general, apart from the very special activity of Gandhi, cannot dispense with coercive fasting.

The picture of Gandhi's activity as something that sometimes had to become coercive cannot be upheld if a more detailed account is given of the various campaigns he led during the fifty years of his struggle.

Fasting is then seen to be a minor issue. Even if the picture drawn by Jaspers is left unchallenged, the consequences for an appraisal of nonviolence as presented by norms, hypotheses, and non-Gandhian campaigns remain to be explored. After all, Gandhi erred and was sometimes led astray, as he himself conceded.

Jaspers refers in his bibliography to only two writings on Gandhi, that of the saintly Andrews (Gandhi 1930) and the learned and painstaking work of W. E. Mühlmann (1950). Andrews is highly idealistic and unworldly when considering Gandhi's relevance for fighting totalitarian terrorism, and Mühlmann is deplorably dependent on German conceptual frameworks, as is shown in the last chapter of his book, where it appears as if he suddenly forgets what he has painstakingly described in his first chapters. We may perhaps be permitted to suggest that Jaspers might have acquired a still more favorable picture of Gandhi's activity—and perhaps a somewhat less idealistic picture of the British policy of repression—if he had used British and Indian sources more extensively. One thing that Jaspers could have taken profitably from Mühlmann is the latter's translation of *himśā* to *Violenz*, a rather awkward term in German, but nevertheless a much better translation than *Gewalt*. With *Violenz*, it is difficult to maintain that politics is in its essence a commerce. The use of this term also makes meaningful and important the question of to what degree a politician can dispense with *Violenz*—that is, organized physical violence. This is clearly a different issue from the strange question of to what degree a politician can dispense with power.

When the nonviolent leader more or less *compels* an opponent to listen, using the Socratic way of not leaving anybody at peace, he still does not compel the opponent to believe in what he has to say. If the opponent, after listening (more or less against his will), arrives at the conclusion that there is, after all, some reason and justice in what is said, he does not take the act of persuasion to be an act of coercion. If I am genuinely persuaded about something, if reason or justice motivate the change in belief, the influences

COMPARISON WITH CERTAIN OTHER PHILOSOPHIES OF CONFLICT

leading up to my change of opinion are not, and should of course not be, classed as coercive. My change of attitude is in that case my change, proceeding from my thinking and feeling. If the opponent appeals to my ethical convictions and makes use of them in order to inspire me to change my attitudes in a crisis, this is not an encroachment on my sovereign freedom. My power (*potentia*) resides in my ability to act out of my own individuality, spontaneously and without compulsion from the persuader. My power is not that of resisting or shutting out impulses from the outside, but of choosing how to act on them. My freedom is here that of choosing with my total personality on the basis of evidence.

Gandhi admits there are momentary situations of nonviolent powerlessness, that is, in which persons confronted with a situation require a level of nonviolent power and ability that at the time they do not possess. It is then right for a person to use physical violence or other kinds of violence in order to defend what it is his deepest responsibility to defend. However, Gandhi condemns the organization and planning of future situations of helplessness. You are not allowed to declare yourself or your nation helpless next year. I think this can be generalized to all who adhere to nonviolence in group struggle. Jaspers stresses that at a given moment, there is in the world a capacity of total terror, of the complete annihilation of peoples, that if released, nonviolence could not stop. However, if we follow the injunction to seek the center of conflicts, there is, in Gandhi's view, no place for passivity until mechanized divisions cross the border, and there is no place for armament. The situation calls for training in nonviolence, not declarations of future nonviolent powerlessness.

It is scarcely controversial that the rise of Hitler and the deportation of Jews were only possible because of widespread passivity. In facing the future, there are threats of terror and organized violence from many quarters. These threats must be resisted immediately. It is during armistice, conventionally called "peace," that campaigns of nonviolence have the best chance of winning. The predominant military outlook teaches, however, that supreme sacrifice and patriotism are things that are only called for in war, not in the shorter or longer periods between wars. Jaspers directs his attention toward the sacrifice of soldiers in war but does not study similar sacrifice during so-called peace. He does not consider the possibility of creating brigades of nonviolence and other institutions that call for sacrifice between wars.

When it comes to theoretical, ultimate conclusions, there is nevertheless a great similarity of outlook between Jaspers and Gandhi.

Jaspers works with a notion of a “responsible statesman” who has goals identical to those envisaged in the metaphysics of Gandhi and who in his dealings with the opponent follows nearly identical maxims (Jaspers 1961: 326 ff.). (Such a statesman is a politician in Gandhi’s terminology, but not in that of Jaspers.) When facing totalitarian dictators, the responsible statesman will communicate as Gandhi would have tried:

The statesman will address the totalitarians without replying in kind. He will not return lie for lie, abuse for abuse; rather, his very word will be truthful. He will speak calmly and simply. His words and questions and statements will unmask falsehood without having to call it false in so many words. Thus he will reach the souls of the totalitarian leaders; at first, he may well be the man they hate the most. But he will go on patiently, ceaselessly, and on the strength of an attitude that hides no mental reservations, he will not only open the eyes of more and more free peoples but will get through to the subjects of total rule. It is difficult to speak like this, not once but all the time, and to make such language ring as the irresistible voice of the world. Today we hear it on occasion, like a miraculous note that touches us and quickly fades away; it is anything but the common tongue of politicians in free countries. But if it is to grip men as the harbinger of truth, it must be heard every day.

(Jaspers 1961: 245)

Here we see expressed the norm of maximal, persistent verbal communication and the belief in the unlimited power of truth to reveal both itself and untruth (Spinoza). But acts count more, and when Jaspers lets the responsible statesman take part in the armaments race, this activity communicates a formidable threat. If the responsible statesman is quite sincere when opening negotiations, he will have to include something like the following admission: “Since I am now trying to be completely truthful, open, and sincere, it is my duty to mention that if our present negotiations should take a tragic turn, there will come a moment after which I shall have to try to deceive you as best I can. Unhappily, I cannot at that moment tell you that the period of truthfulness is over, as this would defeat my effort to deceive you. It is, however, my sincere hope that such a moment will not come.”

According to the tenets of nonviolence, only very limited trust can be expected when there is a threat of violence behind the proposals made. “If our extremely modest and reasonable demands are not met, then . . .” Are

COMPARISON WITH CERTAIN OTHER PHILOSOPHIES OF CONFLICT

they really modest? Who is the judge? Behind the policy of nonviolence, there is a hypothesis of fallibility, an uncertainty regarding the reasonableness and justice of one's own claims and one's own analysis of the conflict situation.

The statesman, as conceived by Jaspers, cannot stand naked before the opponent as the leader of nonviolent struggles is supposed to do. With one hand, the "responsible statesman" grasps the hand of his opponent, but the other has a firm hold of the telephone linking him to the headquarters of psychological and physical violence, "keeping the powder dry."

One cannot have it both ways: penetrating the soul of a tough opponent by one's utmost sincerity and taking no undue risks should he not be properly impressed. There is no indication, however, that Jaspers does not see the perils of his own position or that he underestimates the difficulties of giving a reasonable, clear account of how to react to powerful terror regimes and to the existence of atomic weapons. The above abstracts do not do complete justice to his thinking. His main effort is to underline that mankind is at a turning point: either the more-than-political aims must penetrate politics or we shall all perish. Having this in mind, he is in no doubt as to where to place Gandhi:

Today we face the question of how to escape from physical force, and from war, lest we all perish by the atom bomb. Gandhi, in word and deed, gives the true answer: Only a superpolitical force can bring political salvation.

(Jaspers 1961: 39)

Freedom, Emotion, and Self-Subsistence

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

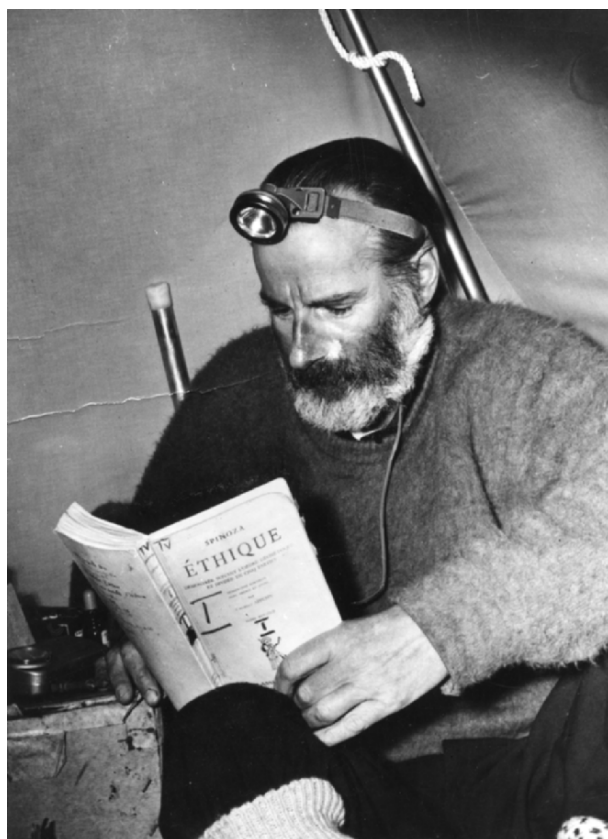
Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

Revised and Edited by Harold Glasser
in Cooperation with the Author
and with Assistance from Alan Drengson

VOLUME VI

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in English by Universitetsforlaget, Oslo, 1975.

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>Series Editor's Introduction</i>	<i>ix</i>
<i>Author's Introduction to the Series</i>	<i>lv</i>
<i>Author's Preface to This Edition</i>	<i>lxi</i>
<i>Author's Preface to the First Edition</i>	<i>lxv</i>
<i>Abbreviations</i>	<i>lxvii</i>
Introduction	i
I. The Fundamental Dual Distinction: “In Itself” and “In Something Else”	9
Survey A	9
Survey A Using Symbols	14
II. Existence and Freedom	23
Survey B	24
Survey B Using Symbols	28
III. Causation, Cognition, and Action	31
The Hypothesis of Cognitive-Causal Parallelism	31
Survey of Theorems	33
Causation, Understanding, and Existence	33
Activeness	37
Human Beings as Part of Something Else	39
Survey C Using Symbols	41
IV. Grading Basic Distinctions	53
Survey D	53
Freedom: A Matter of Degree	53

CONTENTS

Grading "Being in Itself"	57
Power	62
Survey D Using Symbols	65
Grading "Conceived Through Itself"	71
Grading Requirements for "Being" and "Being Conceived"	74
Grading Other Previously Introduced Predicates	76
Power Relations	77
V. The Road to Freedom Through Active Emotion	83
Introduction	83
Survey E Using Symbols	87
States of Emotion	87
Basic Human Striving	91
General Striving	92
VI. Joy	95
Survey F Using Symbols	95
Joy	95
Perfection	97
Self-Preservation	101
Cheerfulness (<i>Hilaritas</i>)	104
Pleasurable Excitement (<i>Titillatio</i>)	106
Sorrow, Melancholy, and Pain	107
VII. Good and Bad and Usefulness	113
VIII. Virtue and Reason	119
Virtue	119
Reason	121
IX. Self-Satisfaction	125
<i>Appendix I: Approximate Signification of Single-Letter Symbols</i>	<i>131</i>
<i>Appendix II: Approximate Meaning of Multiple-Letter Symbols</i>	<i>133</i>
<i>Appendix III: Basic Equivalences</i>	<i>137</i>
<i>Notes</i>	<i>139</i>
<i>References</i>	<i>143</i>
<i>Index</i>	<i>145</i>

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of

what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philosophical palette, not the “world” of his own consciousness as has become

the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our experience of the world is made up of gestalts. "[This] is the world we experience. Nothing is more real."⁴ People create abstract structures to reflect

SERIES EDITOR'S INTRODUCTION

on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess's parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess's "ontological realism" as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of "reality is one" plays a central role in the mature Naess's approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality's concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. "As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence."⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess's perspective, such accounts by themselves are merely a sign of cultural poverty. "God" could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess's gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as "the social construction of nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular

to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility

SERIES EDITOR'S INTRODUCTION

as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his

rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative systems can be seen as very "useful fictions," which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others

SERIES EDITOR'S INTRODUCTION

as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a

troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. "We have all read it. We *still* cheat in argumentation, but now with feelings of guilt."¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as "truth," "democracy," and "private enterprise." . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy

SERIES EDITOR'S INTRODUCTION

and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of

print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a "great idea" without Doug's generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of envi-

SERIES EDITOR'S INTRODUCTION

ronment should not, in Naess's view, play a pivotal role in shaping a budding philosopher's development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess's philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess's principal writings. As such, the *Selected Works* is the definitive repository of Naess's oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess's philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded, and should follow his questions wherever they lead.

Arne Naess, "Norway"

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep

rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small moun-

SERIES EDITOR'S INTRODUCTION

tain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potently influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way"—*sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek

broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The

turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that

change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess's 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers' intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as “*Truth as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's “Common Sense and Truth” (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Us-

SERIES EDITOR'S INTRODUCTION

taoaset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created “institutes” of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi's catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi's idea of trying to meet one's opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war,

Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO's requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy's* richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess's “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess's empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess's frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

SERIES EDITOR'S INTRODUCTION

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO's plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess's research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on

scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is

SERIES EDITOR'S INTRODUCTION

Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation*

and Preciseness, to argue that it is an illusion to assert that combined scientific and philosophical or “purely” philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V),

SERIES EDITOR'S INTRODUCTION

was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), "Seek complete self-realization" and "Seek truth," and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of "Self-realization!" as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokely Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by

Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions

SERIES EDITOR'S INTRODUCTION

taken earlier. Volume VIII includes sections on "Empirical Semantics and 'Truth,'" "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion,

and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work enter-

SERIES EDITOR'S INTRODUCTION

ing into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach’s proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans’ special capacities for reason and moral consciousness come special responsibilities,

particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and

SERIES EDITOR'S INTRODUCTION

interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three

key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy)

SERIES EDITOR'S INTRODUCTION

make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this ap-

proach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manu-

SERIES EDITOR'S INTRODUCTION

scripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and

SERIES EDITOR'S INTRODUCTION

Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also

SERIES EDITOR'S INTRODUCTION

performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-

SERIES EDITOR'S INTRODUCTION

Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible “work fairies” that were constantly pulling me back to my office don’t actually exist. I can’t wait.

Most of all, thanks to Arne Naess for placing his trust in me—it’s been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora’s box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne’s writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder’s “Axe Handles.” The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The

SERIES EDITOR'S INTRODUCTION

first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.

SERIES EDITOR'S INTRODUCTION

6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary

SERIES EDITOR'S INTRODUCTION

philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as

SERIES EDITOR'S INTRODUCTION

- being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.
24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
 25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
 26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Meneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
 27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhis Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
 28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
 29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
 30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecol-

SERIES EDITOR'S INTRODUCTION

ogy approach to ecophilosophy," the "deep ecology movement," and Naess's "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was "A philosopher." In fact, I had already conceived of myself as one. I viewed the

AUTHOR'S INTRODUCTION TO THE SERIES

writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that “What do I mean?” is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these “ordinary” people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally

AUTHOR'S INTRODUCTION TO THE SERIES

necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclina-

AUTHOR'S INTRODUCTION TO THE SERIES

tion very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it

AUTHOR'S INTRODUCTION TO THE SERIES

natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity,

AUTHOR'S INTRODUCTION TO THE SERIES

attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

This work has the long title, *Freedom, Emotion and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics*. *Self-subsistence* is meant in the philosophical sense of “persistence of the Self,” not mere survival. *Emotion* refers to Spinoza's important view that strong positive emotion is necessary to make rapid progress to high levels of human freedom. The application of this view underlies my belief in the indispensable function of Spinoza to supporters of the deep ecology movement. Their positive relation to life on earth is highly emotional. They are led to a positive appreciation for the vast interconnection of life-forms in a wide ecosystem through an emotional care for life-forms of all kinds. A neutral, factual description of this interconnectedness is not enough to move us to act. A cold assessment of the usefulness of certain life-forms does not mobilize a persistent fight against the destruction of species that is going on everywhere.

A book on Spinoza's philosophy generally appeals to people with a background in the humanities, not in analysis and symbolic logic. To the former this book on Spinoza looks formidable: it seems to be filled with formulas. Why use such formulas?

One reason is obvious. Spinoza's *Ethics* is a complex text. There are, for example, more than 270 sentences of the kind “By . . . I mean,” “. . . is the same as . . .,” and so on, where “. . .” may be entities of some kind, including words, more complex text units, or concepts. Those with a prodigious memory might keep the hundreds of important connections between these 270 entities ready in their minds. Most of us cannot do this, and understanding what we are entitled to call a Spinozan total view escapes us. Extremely simple formal logic notation can help us decisively to keep these interconnections clearly in mind.

Are they extremely simple? I thought so when writing this book: “Only a couple of hours study and you will appreciate the help of the sym-

AUTHOR'S PREFACE TO THIS EDITION

bols." It seems, however, that the feeling of simplicity owed to my very early experience. When I was seventeen, I found a reference to the three-volume *Principia Mathematica* by Bertrand Russell and Alfred North Whitehead. They were said to have derived mathematics from pure logic—pure thought, I imagined. It sounded romantic, but the three big blue volumes were formidable. What did I pretend? The first series of derivations was peculiarly easy. They did not skip any premises, whereas the proofs in my school mathematics text jumped along like a boy who had hurt his knee. I enjoyed the logical calculi, and as I was young it was easy to learn. Not so easy perhaps for mature humanists, most of whom dislike such formulas. Strong motivation is essential to master such symbols.

The logical structure of Spinoza's *Ethics* leaves many openings for a variety of interpretations of the content. Historical evidence rules out a lot of them as expressions of the strictly personal view of Spinoza, who lived in a period very different from ours in most ways. Within a framework made up of the essential parts of the *Ethics*, there are many possible interpretations. Moreover, Spinoza changed his views in many ways over his lifetime. I am interested in what he would have retained in later editions of the *Ethics*, if he had lived considerably longer.

The difference between the history of ideas and the philosophy of total views is particularly clear in the case of great systematizers such as Aristotle, Hobbes, and Spinoza. Spinoza scholars like John Yolton who focus on the ideas of young Spinoza interacting with others in a particular spiritual environment find my approach somewhat strange and ahistorical. I think Yolton's findings are of limited relevance to my efforts at reconstruction and the search for salvation. As an example of what a systematic approach might imply, let us look for a moment at the word *Deus* ("God") in Spinoza's text. It is carefully defined. This fact makes it possible to leave it out in a reconstructed text! The definiens is simply substituted for the definiendum. From the point of view of a historian, and especially a historian of ideas, such an omission borders on blasphemy. For the systematician, the history of ideas is an indispensable auxiliary discipline, but only one among other important disciplines, for example, Medieval Latin—as in the use of the term *causa*. These are only auxiliaries, however! My central question has been, How can the texts of Spinoza, together with my more or less intuitively based appreciation of his person and mission, help me in my search for truth? Perhaps some others could be helped in the same way, perhaps not.

AUTHOR'S PREFACE TO THIS EDITION

There is such a splendid variety of Spinoza interpretations. However, it is difficult to understand why no one has focused on his insight into how we can increase our freedom through strengthening and intensifying our positive emotions. Spinoza says increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow. So many interpretations tend to focus on his so-called determinism, the illusion of free will, our slavery under negative passions, and on human beings as tiny creatures in a vast universe without understandable goals, and yet it is claimed rational to believe in God.

Few interpretations try to use Spinoza's own way of exposition with propositions, proofs, and fundamental axioms and definitions. Because of the great number of closely intertwined concepts, some sort of "Euclidian" method of exposition might or might not be the most convenient and yet be the only way to get a proper survey of his system as expressed in the *Ethics*. In any case, this is what I have tried to do in an exposition of some basic features of his system. For those who have experience using simple logical symbols, this text will be easy reading, but for those who have no such experience, what is said using formulas is also expressed in English.

I am convinced that Spinoza's firmly integrated view of human life, and the way to live it, will in the future inspire more people than ever before. We need Spinoza as a source of inspiration, but of course we also need our personal interpretations. Mine is only one of many.

Arne Naess

2004

Author's Preface to the First Edition

Of the many friends of Spinoza among professional philosophers, very few specialize in his philosophy as a system. This seems to me to be a deplorable situation, since few philosophers, if any, have so much to offer us today.

Spinoza's system belongs to the seventeenth century. Its concepts and structure are very foreign to us. Interpretations that try to be as faithful as possible to all details are necessarily of immense complexity—practically unsurveyable. What follows is a reconstruction of some aspects of the system that to me are of central importance for the understanding of human nature.

I am grateful for the help received from colleagues and students.

Abbreviations

The following abbreviations are used in reference to text units of Spinoza's *Ethics*:

D	<i>Definitio</i>	definition
A	<i>Axioma</i>	axiom
P	<i>Propositio</i>	proposition
Dem	<i>Demonstratio</i>	proof
Cor	<i>Corollarium</i>	corollary
Sch	<i>Scholium</i>	note
E	<i>Explicatio</i>	explanation
Aff	<i>Affectus</i>	emotion, affect
App	<i>Appendix</i>	appendix

The references are standardized:

ID7	Definition 7 of part I
IIIP9Sch	Note to proposition 9 in part III
IIIAffD3	Definition 3 of the affects at the end of part III
VP42Dem	Proof of proposition 42 in part V

Introduction

Spinoza's terminology is very rich. Several hundred different words and expressions in his axioms, definitions, theorems, and proofs express together the basic framework of his all-embracing system. Some of these terms are fairly unproblematic in their use, but most are not. One may safely assume that many pairs or groups of terms have the same extension, but this would not prevent them from having widely different meanings in the sense of connotation or intention. Thus, "to be substance," "to be (completely) in itself," and "to be (completely) free" may have the same extension but have different connotations.

Most of the key terms in the *Ethics* have different shades of meaning in different contexts. The differences are obviously relevant to Spinoza's total field of conceptual discriminations, which is so vast that a set of relevant relations between terms runs into the thousands. A survey of such relations was compiled as a preliminary to this work.¹

From a narrow didactic undertaking—the survey of essential terminological relations—I was led to take up the task of partially reconstructing Spinoza's system using a terminology that in some connections may sound strange or far-fetched to some of his students. This is unavoidable, however, if Spinoza's thinking is to be used in our lives.

The reconstruction starts with a set of eighteen theorems concerning that which is in itself or in something else; that which is conceived through itself or by something else; that which does or does not require something else in order to exist; and that which does or does not require other conceptions in order to be conceived.

This beginning is rather abstract and may, I am afraid, bore some readers, but the distinction between "in (through) itself" (*in se*) and "in (through) something else" (*in alio*) occupies a fundamental position in Spinoza's system. The distinction can be called *ontological* insofar as it has to do with ways

INTRODUCTION

of existing or being and *epistemological* insofar as it has to do with ways of conceiving. To avoid misunderstanding, however, I have sometimes elected to use the more dynamic term *lambanological*, which comes from the Greek verb λαμβάνω (to grasp), as opposed to the static and platonic *epistemological*. To be active or to act and to understand cannot be systematically distinguished in the *Ethics*.

The translation of *conceptus* to *conception* rather than to *concept* is preferred to keep the modern discussion of concept, conceptualism, nominalism, and realism at a distance, and also to catch some of the dynamism implicit in the Spinozistic *conceptus*. I take *conceptus* and *conception* to be just a substantivation of *concipere* and *conceive*. No concepts *result* from the acts of conception.

In Spinoza's system, cognition has more to do with "causing," "consuming," "freeing," and "grasping" knowledge than with "possessing" it. The neologism *lambanological* will be given the general sense of "having to do with grasping." Conceiving, understanding, acting, and (human) causing will accordingly be classed as parts or aspects of a unitary process, grasping.

In what follows, we shall often class a statement by Spinoza as either ontological or lambanological. Some comments on the practical criterion may therefore be appropriate. The distinction between ontological and lambanological as applied to the text of Spinoza refers to certain differences well exemplified in the eight definitions of part I of the *Ethics*.

The first definition (ID1) includes two *definiens* phrases: "that, the essence of which involves existence" and "that, the nature of which cannot be conceived except as existent." The latter makes the definitorial delimitation of a cause of itself directly and explicitly dependent on the act of conceiving. The phrase and its meaning in the introduced terminology are lambanological. The former does not express any such dependency explicitly and directly. It nevertheless refers to something, an entity, an *on* (*ov*). Consequently, I call it ontological. Thus, the first definition has a combined ontological *and* lambanological *definiens*. In short, it is ontological-lambanological. When the same test is used, ID2 and ID3 are also classifiable as combined ontological-lambanological. According to ID4, perceptions of the intellect (substance-perceptions) contribute to the delimitation of "attribute." Actually, nothing else is referred to. The *definiens* is surely lambanological. Since, however, an attribute is said to be that which the intellect perceives, the attribute itself is not a perception or any other feature of cognition. So we might add the adjective *ontological*. ID5 also exhibits both

lambanological and ontological meanings. ID6 and ID7, on the other hand, do not refer directly and explicitly to any conception or perception. They are purely ontological. The last definition delimits eternity in terms of conceiving and falls into the lambanological-ontological class. Thus introduced, the distinction does not automatically furnish any general criterion for what belongs to ontology and what does not. It definitely does not parallel the Kantian distinction.

Regarding the classical question of ontological or epistemological primacy, it is characteristic of Spinoza that both ontology and epistemology enter at the very bottom or start of his system—if there can be a “start” of a system. His fundamental vision is somehow beyond that distinction, it seems. He permits himself to mix ontological and epistemological statements in his proofs. I shall try to do justice to the fundamental vision of unity by elaborating *equivalences* in a sense to be clarified later. In part I of the *Ethics*, the unity of vision is attested by a series of parallel ontological and lambanological propositions. For evidence of this, see especially ID1, ID3, ID5, ID8, IA4, IA7, IP2Dem, IP3, and IP3Dem.

Many distinctions, for example those between God and man, and substance and mode, are less fundamental in the sense that they already presuppose the dual distinction: in itself or in something else, conceived through itself or conceived through something else. The dual distinction, on the other hand, does not presuppose the distinctions traditionally taken to be fundamental in Spinoza’s system. The notion “conceived through itself,” for instance, does not presuppose the notion of substance, nor does the notion of “in itself” presuppose the notion of God.

It has been argued that the distinction between substance and mode cannot be less fundamental than the one between “in itself” and “in something else,” since the person who makes the distinction is already a mode when forming the latter distinction. The priority is rather the other way around, it is said. Against this, I would answer, first, that the same argument, if valid, also holds against taking the distinction between substance and mode as the more fundamental, since the person making the distinction is already something in something else. Second, the fundamentality of the distinction between “in itself” and “in something else” has to do with Spinoza’s ontological status as a mode—*all* his life.

Why does Spinoza not introduce “in itself” in terms of substance? Why doesn’t he write “By being in and being conceived through itself I under-

INTRODUCTION

stand being substance”? From this and a series of other definitions one might try to reverse his text. My answer is that this would involve not only a change of mode of exposition, but also an unwarranted change of priority in Spinoza’s thinking: he understands and contemplates substance, mode, God, attribute in part as that which is in itself or that which is in something else, and that which is conceived through itself or that which is conceived through something else—not the other way around. The terms *substance*, *attribute*, *God*, *mode*, and *Nature* are expendable in his system, but of course they were necessary on the seventeenth-century scene. Much is gained today in understanding Spinoza by breaking down the traditional domination of those terms in expositions of the structure of his thought.

By means of the third definition of part I (ID₃), we eliminate from the text the term *substance* whenever doing so facilitates understanding. The definition is worth quoting here because of the peculiar shift from ontological to lambanological terminology—a shift I shall make use of in the following pages: “By substance I understand that which is in itself and is conceived through itself: that is, that the conception of which does not require the conception of another thing, from which it must be formed.” The property of “being conceived” is completely on a par with “being.” Substance cannot be unconceived, by definition.

The fundamental dual distinction is expressly and directly made use of in the *definiens* formulations or the proofs in the many text units: ID₃, ID₅, IA₁, IA₂, IP₂Dem, and so on. Indirectly, the dual distinction enters all through the *Ethics*. It enters, for instance, into all propositions in part I using ID₃ and into the proofs referring to ID₃, that is, IP₁Dem, IP₂Dem, IP₄Dem, IP₅Dem, IP₆Dem₂, IP₁₀Dem, IP₁₅Dem, IP₁₈Dem, and IP₂₈Dem.

To the ontological axiom 1, “that which is, is either in itself or in something else,” corresponds “that which is, is conceived either through itself or through something else.” This latter lambanological proposition cannot be denied a place in the system in spite of its not being explicitly formulated in the *Ethics*. It occurs as number six in my initial set of eighteen propositions (I call it A6). It is my contention that hundreds of more or less important, so-far-unstated theorems cannot be denied their place in the system. They follow either directly or indirectly from definitions, axioms, propositions, or other central statements in the very core of the *Ethics*.

In reconstructions, the lambanological parallel to axiom 1 can be introduced as a separate axiom, or derived from axiom 1 and a proposition, defi-

dition, or axiom. There are a number of possibilities open. We shall not, however, take up problems concerning the status of the various propositions as parts of various reconstructions. Instead, we shall leave the subject, repeating that our sets of theorems do claim validity, but not any definite hierarchical place in the expositions or reconstructions of the system, axiomatic or otherwise.

Even the very small set *A* of theorems contains as many as fifteen different predicates of high systematic relevance. To facilitate the survey of the theorems and to remind us of their internal relations, the lower predicate calculus is used to symbolize them in the survey beginning on page 14. To do this requires only seven capital letters. The eighteen propositions are symbolized by means of abbreviated predicate expressions.

In chapter 1, the use of symbols is purely heuristic and has little bearing on our choice of theorems or their derivation. Those who are not familiar with the functional calculus, or dislike symbols in philosophical contexts, may ignore formulations using symbols. In any case, translations of symbolic expressions are always included in the text.

Some logicians have discussed the possibility of formalizing Spinoza's system. Such an undertaking, however, is doomed to be unsuccessful given the complexity of his texts. What I have done in the following chapters has little, if anything, to do with formalization of a doctrine. Only a small (but central) sector of relationships in the *Ethics* is expressed in symbols, and the sector is itself isolated from the rest by more or less arbitrary, but heuristically justifiable, delimitations. The sector expressed by means of symbols in what follows makes up scarcely more than 1 percent of the *Ethics*, even if we limit ourselves to its major conceptual structures. Chapter 2 introduces the notion "conceivability of the nonexistence of something." It is an important ingredient of the notions "essence involving existence" and "freedom." These notions are all linked to the fundamental dual distinction: that which cannot be conceived as nonexistent is nothing else than that which is in itself (and so on). In a set of twenty-one theorems (referred to as B1–B21), various internal relations and relations to the theorems of chapter 1 are clarified.

The basic relation in all this is extensional equivalence—symbolized by "ekv." The relata of extensional equivalence are whole sentences. In the following chapters we make extensive use of a less intimate relation, namely, that of mutual implication: "If *x* has the property *A*, then *x* has

INTRODUCTION

property *B*, and if *x* has property *B*, then *x* has property *A*.” “Ekv” implies mutual implication, but mutual implication does not imply “ekv.”

In terms of conditions, the presence of property *A* is a sufficient condition of the presence of property *B*, if *A* implies *B*. If something is in itself, this is, according to Spinoza, a sufficient condition of its being conceivable through itself; but if something is conceivable through itself, it is also in itself. Thus, *B* also implies *A*. The mutual implication makes *A* a necessary and sufficient condition of *B*, and vice versa.

Several hundred sentences in the *Ethics* are formed as some sort of equivalences: “Desire (*cupiditas*) is nothing else than the *conatus* itself to act” (IVP59Dem); “Desire considered absolutely is man’s essence itself . . .” (IVP61Dem); “. . . considered to possess the same sort of eternity or necessity . . .”; “The cognition of bad (*malum*) is the sorrow (*tristitia*) itself insofar as we are conscious of it” (IVP64Dem); “. . . God or Nature . . .” (IVP41Dem); “From the necessity, or (which is the same thing), from the laws only of the divine nature . . .” (IP17Dem).

Chapter 3 makes the transition into parts III and IV of the *Ethics*, introducing the predicates “understanding,” “freedom,” and “action” and linking them to the fundamental dual distinction.

It is seen, I hope, in chapters 4 and 5 how Spinoza’s positive attitude toward emotions and his belief in unlimited progress of freedom are linked to his basic metaphysical distinctions and propositions. I also hope to explain how he can speak of a genuine road toward freedom in spite of the seemingly prohibitive absoluteness of the fundamental dual distinction introduced in part I. There, man is unfree, fragmentary, impotent—he falls on the wrong side of a seemingly knife-sharp partition between in itself and in something else. In parts III, IV, and V, however, the partition is softened. Accordingly, I substitute for hard dichotomies a parallel set of graded predicates. This is done in chapter 4, which introduces the great turning point in my reconstruction. As will be seen, Spinoza himself suggested grading in the latter part of the *Ethics*. The softening is thus not arbitrary; it represents an implementation of some suggestions made by Spinoza himself.

In chapters 6 through 9, central notions such as “joy,” “good and bad,” “useful,” “virtue and reason,” and “self-satisfaction” are discussed using terms introduced in the preceding chapters. Whereas *substance*, *attribute*, and *mode* are eliminated, some basic scholastic terms, such as *in itself*, are retained in the reconstruction. This inevitably raises a question regarding the

extent to which the present reconstruction will be accessible to people with no special training in scholastic philosophy.

It is hoped that in what follows light will be shed on the term *in itself* through the suggestion of extensional equivalences. If some of these prove satisfactory, to be “in itself” can, in a preliminary way, be understood by concentrating on “that which can be conceived by itself” and its relatively easily understood counterpart, “that which can only be conceived adequately by also conceiving something else.” Or one may choose one of the other equivalences.

One may obtain access to the function of a group of extensionally equivalent terms by starting with those that are most readily understood. Say, for example, that term *A* is fairly well understood in its uses in contexts *a*, *b*, and *c*, whereas *B*, well understood in *d*, *e*, and *f*, is less understood in *a*, *b*, and *c*. By transferring *B* to contexts *a*, *b*, and *c*, one can obtain a better understanding of *B*. In this way the equivalences asserted in what follows can assist in an understanding not only of the conceptual links between the fundamental terms of part I and the conceptual framework of parts III and IV, but also—to a modest degree—of the terms themselves.

What I am trying to do, as indicated by the subtitle of the work before you, is to clarify the structure of a central part of Spinoza’s *Ethics*. If his system is presented as a vast circle, the central parts may be likened to the area of a smaller circle within the larger one. The different central parts of the *Ethics* are then parts within the smaller circle. How they should be conceived in their intimate relation to one another I do not pretend to know. The present study draws inspiration from the clearness and broadness of certain interconnections within the system. It does not pretend, however, to cover all central parts nor, of course, the system as a whole. Nevertheless, the system can be conceived adequately only as *a whole*. I shall assume that the reader has some very general conception of this whole, as I cannot furnish more detail within the confines of this study.

I

The Fundamental Dual Distinction: “In Itself” and “In Something Else”

Survey A

(“Add” preceding a survey entry marker denotes an addendum to the entry above it.)

- A₁ That which is, is either in itself or in something else.
- Add A₁ This is a rendering of the ontological IA₁. Later (in chapter 4), I shall take A₁ to mean “That which is, is either *totally* in itself or partly in itself and partly in something else.” The word *sunt* in *Omnia quae sunt* is open to various interpretations that I gloss over just now. Later, for instance, I shall be compelled to distinguish between “*x* exists” and “*x* is,” saying that that which is completely in itself does not exist, and that which exists is not completely in itself.
- A₂ That which is in itself is that which does not require something else in order to be.
- Add A₂ Ontological parallel to the mixed ontological-lambanological ID₃. In chapter 4, the following graded interpretations are adopted: “That which is totally in itself is that which does not at all require something else in order to be” and “That which is in itself in all relations is that which does not in any relation require something else in order to be.”
- A₃ That which is in something else is that which requires something else in order to be.
- Add A₃ From A₁ and A₂, using A₁₆. Ontological parallel to A₆. Interpretation to be introduced in chapter 4: “That which is partly in something else is that which requires something else in order

THE FUNDAMENTAL DUAL DISTINCTION

to be.” Similar interpretations are adopted in relation to A4 and A5. We say “in order to be” rather than “in order to exist,” taking “to be” as a wider property than “to exist” for the reasons stated in chapter 4.

- A4 That which is, is in itself if it is not in something else.
- Add A4 Ontological parallel to the lambanological IA2. Following Spinoza, we might reformulate A4 as “That which is must be in itself if it cannot be in something else.” Some logicians expect to clarify Spinoza’s thought by applying modal logic. However, I think the value of this approach is limited. Necessity is such a pervasive notion in the *Ethics* that it does not suggest fruitful contrasting properties within the system of theorems.
- A5 That which is, is in something else if it is not in itself.
- Add A5 Based on A4 and A1, that is, ultimately on IA1. It is doubtful that Spinoza tried to express anything special by giving IA2 a modal form. It seems that he might as well have given most or all other basic sentences that form. Thus, that which *is* in itself *must be* in itself, and *cannot be* in something else, it seems. IA1 might therefore have been formulated thus: “That which is either must be in itself or must be in something else.” Since the being of all things follows by necessity from God, IA1 might even be given the form: “That which *must be*, either *must be* in itself or *must be* in something else.” And A6 might be given the modal form: “That which must be, either must be conceived through itself or must be conceived through something else.” There seems to be no definite limit to this way of introducing modal terms. But the introduction of modal forms creates unnecessary logical complications. Therefore, in what follows, the modal versions are not listed independently of the nonmodal versions of theorems.
- A6 That which is, is conceived either through itself or through something else.
- Add A6 Lambanological parallel to IA1. In chapter 4, A6 is understood to mean “That which is, is conceived either totally through it-

self or partly through itself and partly through something else.”

It may be argued that there are many things that never happen to be conceived; for instance, many whirling snowflakes in the Antarctic. It may therefore be argued that that which is conceived, whether through itself or through something else, is only a minor part of that which is. Thus, A6 should read: “That which is *conceived*, is conceived either through itself or through something else.” If “*x* is conceived” is taken to be shorthand for “*x* is now at this moment actually conceived by at least one adult human being or by another kind of being capable of conceiving,” the reflection is valid. *Conceived*, however, should be viewed in a wide sense, closer to “conceived or conceivable.” Using this broad sense, we tentatively posit, “That which is, is conceived and that which is conceived, is.”

- A7 That which is conceived through itself is that which is such that its conception does not require any other conception in order to be formed.

- Add A7 Based on ID3, *Conception* is preferred to *concept* because of the static and conceptualistic associations of the latter term.

- A8 That which is conceived through something else is that which is such that its conception requires at least one other conception in order to be formed.

- Add A8 Formed from A6 and A7 using A1 (which is drawn from IA1).

- A9 That which is not conceived through something else is conceived through itself.

- Add A9 The lambanological parallel to IA2. The full importance of this axiom and the closeness of the relation between the lambanological and ontological aspects become apparent in IP8Sch2. Spinoza says that we can have true ideas about nonexistent things if and *only* if they require other conceptions through which they are conceived and these other conceptions refer to existing things. But we cannot have true ideas of a substance in

THE FUNDAMENTAL DUAL DISTINCTION

this way—to have those, we must be directly confronted with substance as it is. The truth of the idea can only be a reflection of this *confrontation* (cf. Edmund Husserl’s account of our awareness of the validity of the principle of contradiction). “If therefore somebody would say that he has a clear and distinct, that is, true idea of a substance, and nevertheless doubts whether it is false . . . that would amount to at the same time saying that he had a true idea, but nevertheless doubted whether it was false. . . .” The confrontation implies an elimination of the distinction between the subject and the object of cognition: substance is conceived through itself, that is, without our forming an idea that copies or mirrors the properties of substance. No comparison of idea with *ideatum* is necessary. Falsehood is excluded a priori.

This interpretation of the conception of “that which *is in* and *is conceived through* itself” is the only one, so far as I can understand, that explains satisfactorily the fundamental parallelism between epistemology and ontology in the *Ethics*.

- A10 That which is not conceived through itself is conceived through something else.
- Add A10 Based on A9 (IA2) using A6.
- A11 That which is in itself is that which is such that its conception does not require any other conception in order to be formed.
- Add A11 Derived from definition ID₃ when the latter part of it is considered to be related to the whole expression “that which is in itself and is conceived through itself.” Let us call it the holistic interpretation of the conjunction. This conjunction is found in many other places in the *Ethics*; see, for example, IP₂Dem and IP₁₅Dem.
- A12 That which is in something else is that which is such that its conception requires at least one conception of something else in order to be formed.
- Add A12 Derived from A1 and A11. See also IP₈Sch2, the sentence “*Per modificationes*. . . .” Spinoza refers to other things in which a

thing may be, or through which it may be conceived. From the example offered of causes and also other features of the context and, of course, from the sentence “*Per modificationes. . .*” itself, I conclude that if x is in y or is conceived through y , y need not be God or substance. Two “in something else” relations must be distinguished: the (universal) relation of things in God, and the chain relations parallel to the cause-effect relations of being in something else.

- A13 That which is in itself is that which is conceived through itself.
- Add A13 From A7 and A11.
- A14 That which is in something else is that which is conceived through something else.
- Add A14 Derived from A8 and A12. Suggested by the second half of ID5.
- A15 That which is conceived through itself is that which does not require anything else in order to be.
- Add A15 Derived from A7 and A18.
- A16 That which is, either requires or does not require something else in order to be.
- Add A16 Ontological parallel to the lambanological A17. The importance of this and the following quasi tautology derives from their generality: “for anything whatsoever that is, it holds that . . .” This assertion of generality implies the meaningfulness or relevance of a distinction in *all* realms of that which there is.
- A17 That which is conceived either requires or does not require the conception of something else in order to be formed.
- Add A17 Lambanological parallel to the ontological A16, suggested by A7 and A8, together with A6.
- A18 That which does require something else in order to be is that which requires at least one conception of something else in order to be formed.

THE FUNDAMENTAL DUAL DISTINCTION

Add A18 An ontological-lambanological equivalence. Derived from A3 and A12.

Survey A Using Symbols

The foregoing theorems and what follows from them are more easily surveyed if certain symbols, made up from one or several capital letters, are introduced to designate properties or express concepts.

Symbols:

Single isolated letters have the following approximate meanings:

E	being (in a vague, inclusive sense) [from the Latin word <i>esse</i>]
N	not- [from Latin <i>non</i>]
S	itself [from Latin <i>se</i>]
A	something else [from Latin <i>alius</i>]
R	require something in order to something [from Latin <i>indiget</i>]
P	possibility, ability, power [from Latin <i>posse</i>]
C	conceive, understand [from Latin <i>concipere</i> , <i>intelligere</i>]

The symbols below, formed by joining two single capital-letter symbols, have the following meanings:

ES as in $ES(x)$	x is in itself <i>x in se est</i>
EA as in $EA(x)$	x is in something else <i>x in alio est</i>
CS as in $CS(x)$	x is conceived through itself <i>x per se concipitur</i>

RE as in RE(x)	x requires something else in order to be
CA as in CA(x)	x is conceived through something else
RC as in RC(x)	x requires another concept in order to be conceived

Spinoza sometimes uses the expression “not to be in itself” as at least extensionally equivalent to “to be in something else.” Perhaps he sometimes even uses the expressions as synonyms. To play it safe, I do not introduce “to be in something else” as simply the negation of “to be in itself.” There might be a third category depending on the interpretation of “to be” (*esse*). Consequently, I make use of a new symbol, EA, instead of just using -ES. (Negation, “it is not the case that . . . ,” I symbolize by a closed-up minus sign.) Similarly, it is tempting to introduce “conceived through something else” by simply negating CS, that is, by -CS. I have used the separate symbol CA, however, for the same reason indicated above.

A note concerning “being in something else”: Things that are in something else are in God. This is stated explicitly in IP23Dem. Is this, however, the whole point about being in something else? If it were, one would usually expect Spinoza to write “being in God” instead of “being in something else”—hiding what this something always and invariably would have to be. It is my contention that what is referred to is not always God even when, of course, everything is always also in God. The completely general property of being in God does not exclude something also being in something other than God. The term *being* is used here in two different senses.

Thought and extension are different according to Spinoza. I will express thought as being something different and something other than extension. Both are in themselves and are conceived by themselves as attributes.

Now, motion is not in itself and conceived by itself according to Spinoza. Extension is conceived through itself and in itself, but not so motion; it is conceived through something else, and its conception involves extension. Motion, being conceived through something else, is in something else, if we use Spinoza’s conception of being in something else. Motion is in something else, namely, in extension. Motion is also in God, but, at least conceptually, extension is not the same as God.

THE FUNDAMENTAL DUAL DISTINCTION

Motion is not in the attribute thought. Although neither motion nor thought can be distinguished extensionally from God, both can be distinguished conceptually. This implies that the predicate “to be in something else” also applies to something different (at least conceptually) from God.

The conception of motion involves the conception of extension, but it also involves something more. If it did not, *only* motion could be involved in extension, since any other thing would then be conceptually indistinguishable from motion. If motion is to be differentiated from rest, and from other things conceptually dependent on motion, motion must be conceptually dependent on several conceptions, not just on extension. We are thus led to much more extensive and fruitful applications of the conception of “being in something else” than the merely repetitious “being in God.”

When two different things are completely understood and conceived through God, the formulation of the two conceptions cannot be identical. The second thing must be understood through something other than that through which the first thing is conceived. If when asking “How is this to be understood?” we always got the answer “Evidently, through God,” we would not be satisfied, nor would Spinoza.

The tremendous complexity of answers that Spinoza gives to questions of life and death, to questions of society and morals, is justified by a fundamental distinction between an understanding of something through God taken absolutely (*quatenus absolute consideratur*) and through God as affected some way or other (*quatenus aliquo modo affectus consideratur*).¹ God is also said to be modified by a verb corresponding to the noun *modus*. The difference between modes and God modified and affected in various ways is conceptual, not extensional. Thus, when something is in something else, namely, in God modified or affected in various ways, the something is in modes, and not only in God “considered absolutely.”

The understanding of the various human emotions gained in part III exemplifies conceptions through God because the emotions, or rather the human beings with emotions, are not completely in themselves but in something else—namely, God. Concretely, however, the understanding is described in terms of desire, appetite, acts, situations, personal developments, adequate and inadequate ideas, three kinds of human knowledge, and so on. That is, the modes or particular things are conceived through God as affected in various ways or, more explicitly, conceived through other modes or particular things.

The main thing to note in this work is that “in something else” (*in alio*) is used in a broad sense to do justice to both the relation between a particular thing and God taken absolutely and the relation between a particular thing and attributes, infinite modes, and (finite) particulars. In the latter cases, something may be conceived through a second thing, and therefore is in that thing, at the same time that this second thing is conceived through a third thing, and therefore be in that third thing. We thus have chains of relations corresponding through equivalences to the chains of cause and effect.

The following logical symbols are now introduced:

a	<i>aut</i> , the exclusive sense of “or”
∨	<i>vel</i> , the inclusive sense of “or”
&	conjunction “and”
⊃	material implication “if <i>A</i> then <i>B</i> ”
~	mutual implication “if <i>A</i> then <i>B</i> and if <i>B</i> then <i>A</i> ”
-	negation “not”
ekv	equivalence (“is extensionally equivalent to”)

Axiom 1 in part I of the *Ethics* (IA1), translated into English, reads, “All things that are, are in themselves or in something else.” Using our symbols, we write: $ES(x) \text{ a } EA(x)$. Because Spinoza routinely uses *vel* when *aut* would be closer to what he means, we must ask, Could there be an x such that it would be valid to say about this x : $ES(x) \text{ \& } EA(x)$? If $ES(x)$ is taken to mean fully or completely in itself, such an x does not exist. I wish to let $ES(x)$ in this part of the reconstruction stand for just this extreme case. Therefore, in what follows, the axiom receives the form $ES(x) \text{ a } EA(x)$ or, in my shorthand, $ES \text{ a } EA$. The eighteen theorems of survey A can now be reformulated using my abbreviated logical formula as:

Survey A

SA1	$ES \text{ a } EA$	IA1, ontological
SA2	$ES \text{ ekv } -RE$	ontological parallel to SA11

THE FUNDAMENTAL DUAL DISTINCTION

SA ₃	EA ekv RE	from SA _{3a} and SA ₂ ; ontological parallel to SA ₆
SA ₄	ES \supset -EA	ontological parallel IA ₂
SA ₅	EA \supset -ES	based on SA ₄ and SA ₁
SA ₆	CS a CA	lambanological parallel to IA ₁
SA ₇	CS ekv -RE	based on ID ₃
SA ₈	CA ekv RE	from SA ₆ and SA ₇
SA ₉	-CA \supset CS	lambanological parallel IA ₂
SA ₁₀	-CS \supset CA	based on SA ₉ using SA ₆
SA ₁₁	ES ekv -RE	from ID ₃ , holistically interpreted (cf. A ₁₁)
SA ₁₂	EA ekv RE	from SA ₁ and SA ₁₁
SA ₁₃	ES ekv CS	from SA ₇ and SA ₁₁
SA ₁₄	EA ekv CA	from SA ₈ and SA ₁₂
SA ₁₅	CS ekv -RE	from SA ₇ and SA ₁₈
SA ₁₆	RE a -RE	their logical form reduces A ₁₆ and A ₁₇ to tautologies
SA ₁₇	RC a -RC	lambanological parallel to SA ₁₆
SA ₁₈	RE ekv RC	from SA ₃ and SA ₁₂

Note on the application of symbolic logic: On reading the above symbolic versions, one should have in mind how the symbols \vee , ekv, &, and so on are introduced in a good elementary textbook that avoids unnecessary philosophical commitments and, as a corollary, has only heuristic pretensions as to what is gained by the use of symbols. The symbols used here are not meant to be anything more than convenient tools.

When we write ES ekv -RE, we do not pretend to symbolize (1) what Spinoza means by “in itself” or (2) what Spinoza means by “require something else in order to be”; we are only trying to symbolize the relation be-

tween (1) and (2). There is no way of measuring the semantical distance between the meaning intended by Spinoza and that of a symbolic construction. The distance is one of many dimensions, none of which has any generally recognized measurable unit. Here only some elementary points will be mentioned:

1. In IA1, which says “That which is, is either in itself or in something else” (*Omnia, quae sunt, vel in se vel in alio sunt*), the expressions *omnia* and *sunt* permit various, significantly different interpretations (pending conclusive results of Spinoza research). In connection with universal and existential quantification, I have reasons for avoiding (until chapter 4) these terms, which are among the most slippery in Spinoza’s terminology. We have avoided $\gamma_3(x)$: $E_{sp}(x) \supset ES(x) \vee EA(x)$; “For all x it holds, as an assertion expressing cognition of the third kind, that if x is [in the sense of Spinoza’s *Ethics* IA1], then x is in itself or is in something else.” This would lead to a premature multiplication of concepts.

The false view that there is a systematic difference between “*vel . . . vel*” and “*aut . . . aut*” in Latin, such that “*vel . . . vel*” corresponds to “ \vee ” and “*aut . . . aut*” to “ \wedge ,” made it natural to symbolize the axioms by $ES \vee EA$ rather than by $ES \wedge EA$. But even if only a small bit of context is taken into account, evidence accumulates that “*a*” (*aut*) is nearer than “ \vee ” (*vel*) to the intended meaning (within the rather special dimension of differences of meaning, which is relevant to the distinction between exclusive and inclusive “or”).

2. In rendering IA1 by $ES \wedge EA$ rather than by $(x): ES(x) \vee EA(x)$, we are deliberately simplifying matters by turning our attention away from the question of how wide the range of values of the predicates “in itself” (ES) and “in something else” (EA) should be, of how wide the class of existents is in Spinoza’s terminology, and of what class of *objects*, in a very wide sense of the word, is such that it suits the intended meaning of the general assertion made by Spinoza. We turn our attention away from questions of range, but the same questions of course relate to the formulas, even if we avoid symbols of quantification. Which are the ranges of the predicates? The question is left unanswered at this point.

THE FUNDAMENTAL DUAL DISTINCTION

There is little reason to expect that, for example, of the twenty most frequently used predicates in Spinoza's theorems, all have the same range of intended application or range of meaningfulness. I assume in what follows that IA1 is intended to apply to a definite, very wide range, and that this holds for all others symbolized in this work (for example, "free"), and that this range is exactly the same for all. This, of course, introduces a major simplification, and in Spinoza studies simplifications should always be welcomed as long as they are explicitly formulated and not too ahistorical.

In light of the undetermined ranges of variables, a tautology such as $RE\ a - RE$ (see SA16) is of interest because it says all x 's that make $ES(x)$ and $EA(x)$ meaningful also make $RE(x)$ meaningful, and vice versa.

3. If Spinoza's text affords evidence that three complex sentences A , B , and C form fairly adequate symbolizations of three theorems of the *Ethics*, each considered in isolation from the context, or at least in isolation from the total context of Spinoza's works, logical calculi permit us to derive a number of consequences in an easily testable way. If, now, D is a consequence and D is found to form a fairly adequate symbolization of a theorem, or of a not entirely trivial sentence that intuitively, or according to a rather obvious nonformal chain of reasoning, may be derived from theorems, this discovery is of sufficient interest to be noted. If a logician were to say that this sentence is logically derivable from A , B , and C (which are in harmony with Spinoza's text), and you do not need to note that D stands in a satisfactory relation to the text of Spinoza, the logician would be overlooking the fact that all symbolization is purely hypothetical as regards adequacy, however well tested in a broader context. Any confirmation of our hypotheses should therefore be noted. That D is adequate confirms the symbolization of A , B , and C .

It must not be taken for granted that the often rather strange conclusions that formal logic permits to be drawn from a set of premises are fit to be included in our set of symbolizations of sentences that harmonize with Spinoza's text.

This long note on the use of symbolic logic might be shortened considerably if there were not a tendency to overestimate the philosophical consequence of its use. If a housewife writes ES for Ellen's

syrup and EA for Ellen's apples and uses + and = in her economic calculations, we do not scold her for not having at the same time decided exactly what to express by EA, ES, +, and = in terms of, let's say, chemistry and number theory. Using symbols when surveying the complicated structure of Spinoza's terms and propositions does not make it necessary at the same time to take up all kinds of problems connected with the interpretation of the logical symbols and the predicates symbolized by letters. Our use of symbolic logic is heuristic, not an attempt to philosophize beyond the scope of the nonsymbolic versions of our theorems.

On the other hand, we do not intend to minimize the importance of the problems created by our simplification. We will try to pick some of them up along the road. One of the most difficult tasks we face when forming an exposition of a part of Spinoza's philosophy is just to avoid trying to say all things at once.

II

Existence and Freedom

Spinoza makes extensive use of the distinction between inconceivable things in the sense of things that we cannot conceive as real, existing things, and things that conceivably exist but in fact may or may not exist. About the latter, Spinoza says that they can be conceived, first, both to be and not to be and, second, to exist and not to exist. In addition, there are things (in the extremely broad sense of “thing”) that cannot be conceived not to be. Things that are completely conceived through themselves cannot be conceived *not* to be. The way, and the only way, to conceive them is just to be confronted with them in the act of conception. They cannot be introduced into a discussion in the following way: “I shall now describe to you the essential properties of something, x , and let us then discuss whether it exists or not” (cf. IP8Sch2). If this kind of introduction were possible, this x would be conceivable by means of something else, namely, the description of a set of properties of x .

Some would say that a red hue is either conceived through itself or not conceived at all. Introducing a red hue through the concept of wavelength or use of a color atlas does not help if one does not also have a perfectly direct access to hues. Spinoza would perhaps not agree to this, but the *kind* of argument concerning red hue is analogous to that on substance. Either you grasp it directly, and then you of course cannot avoid attributing existence to it, or you do not grasp it. In that case you do not know what Spinoza is referring to. Either you accept that substance exists, or you do not know what to look for.

There is, as already mentioned, a minor terminological problem confronting us at the very outset: is Spinoza in such contexts talking about being in some broad sense or being in a narrow sense of existing (being at hand, being so that it can be found) or of being in other senses? It seems that he is considering “being” (*esse*) in a broad sense. It is confusing that he

EXISTENCE AND FREEDOM

sometimes uses the term *existere* rather than the term *esse*, which better lends itself to broad senses.

We shall, in spite of the too narrow concepts usually expressed by the term *to exist*, nevertheless regularly translate *existere* to *exist*. This means that in our reconstructions, *exist* sometimes expresses what we have already announced shall be expressed by *being* and by *is*. In our special terminology, what is completely conceived through itself does not exist, but *is*. But it is too complicated to consistently carry through this terminology in our translations of Spinoza.

Spinoza often uses *existere* in a way that implies actual existence, “to be there,” *da seiend* in German. He then contrasts this with being involved (*involvit*). See, for example, his discussion of Euclid’s section 35 in book 3, IIP8Sch:

In a circle infinitely many equal rectangles are contained, and its idea *involves* all these rectangles. But they do not exist — “none of them may be said to exist.” Nor do we have any idea of them when we have an idea of the circle. But all the rectangles are nevertheless *involved* in the idea of the circle [my italics].

Survey B

- B₁ Something can either be conceived as nonexistent or cannot be conceived as nonexistent.
- Add B₁ This pretty vacant sentence introduces a new predicate “cannot be conceived as nonexistent.” It behaves as do the already introduced predicates “in itself,” “conceive through itself,” and so on, giving rise to a growing set of strict dichotomies parallel to the fundamental dual distinction. B₁ is only a postulation of the universal applicability of such a dichotomy.
- B₁ might be more carefully worded as follows: something can either both be conceived to be and be conceived not to be, or it cannot be conceived not to be. This version makes it clear that the possibility of something that *only* can be conceived not to be is left out.
- B₂ If something cannot be conceived as nonexistent, existence belongs to that without which that something cannot be conceived, and vice versa.

- Add B2 This theorem might be derived from B1 and “That which cannot be conceived as nonexistent can be and can only be conceived as existent” and “That which can only be conceived as existent exists.”

The expression “cannot be conceived except as existent” (*non potest concipi nisi existens*) occurs at the very beginning of the *Ethics*, defining “cause in itself.” In ID1 Spinoza speaks about something the *nature* of which cannot be conceived except as existent. If we take *nature* here not to be different from *essence* in IID2, it seems that if the nature of something cannot be conceived except as existent, then that something itself cannot be conceived except as existent. Therefore, for simplicity’s sake, *nature* or *essence* is not used in B1 and the propositions that follow (We do *not* say “The nature [essence] of that which is conceivable can either . . .”). The near synonymy of *nature* and *essence* in the kind of context studied here manifests itself in IP7Dem, where “*x* is a cause of itself” is equated with both “*x*’s essence necessarily involves existence” and “it belongs to the nature of *x* to exist.”

Preferring *is* to *exists*, we might phrase B2 as follows: if something cannot be conceived not to be, being belongs to that without which that something cannot be conceived, and vice versa.

- B3 If something can be conceived as nonexistent, existence does not belong to that without which that something cannot be conceived, and vice versa.

- Add B3 The expression “that which can be conceived as nonexistent” occurs in IA7. A little later it occurs in the treatment of the existence of God. Proposition B3 is derived in part from the definition of *essence* (IID2): “To the essence of a thing belongs, I say, that which, if given, the thing is necessarily posed [*ponitur*], and which, if not given [*sublato*], the thing is necessarily removed [*tollitur*].”

In the formulation of B3, “If something can be conceived as nonexistent, existence does not belong to *that without which . . .*,” the italicized part is a substitute for the phrase

EXISTENCE AND FREEDOM

its essence and is identical with the last part of the definition of essence, IID2.

- B₄ If something can be conceived as nonexistent, it is conceived through something else, and vice versa.
- Add B₄ The “something else” is God as modified or affected, somehow.
- B₅ If something cannot be conceived as nonexistent, it is conceived through itself, and vice versa.
- Add B₅–
B₂₁ This and the following propositions, except B₁₀, are derived from the foregoing propositions and A₁–A₁₈ in elementary ways. Those interested are referred to the right-hand column in the symbolic version of Survey B, p. 28.
- B₆ If something can be conceived as nonexistent, it is conceived by something else, and vice versa.
- B₇ If something cannot be conceived as nonexistent, it is in itself, and vice versa.
- B₈ If something can be conceived as nonexistent, it requires the conception of something else in order to be conceived, and vice versa.
- B₉ If something can be conceived as nonexistent, it requires something else in order to be, and vice versa.
- B₁₀ If something is free, existence belongs to that without which it cannot be conceived, and vice versa.
- Add B₁₀ The term *free* (*liber*) occurs for the first time in ID₇. Something free is said to exist alone from (by force for) the necessity of its nature. Another characteristic is added (in the form of a conjunction). Each member may be taken as self-sufficient, and we choose the first. Eliminating *essence* for *nature*, we apply the definition of essence (IID2). This gives us B₁₀.
- B₁₁ If something is unfree, existence does not belong to that without which it cannot be conceived.

- Add B11 In part I, Spinoza uses *free* for “completely, absolutely free.” *Un-free* is then synonymous with “not completely, absolutely free.”
- B12 If something cannot be conceived as nonexistent, it is free, and vice versa.
- B13 That which is unfree is such that existence does not belong to that without which it cannot be conceived.
- B14 The free is that which is in itself.
- B15 The unfree is that which is in something else.
- B16 The free is that which is conceived through itself.
- B17 The unfree is that which is conceived through something else.
- B18 The free is that which does not require something else in order to exist.
- B19 That which is free is that which does not require the conception of something else in order to be conceived.
- Add B1–
B19 The availability of these theorems taken in isolation is doubtful and precarious to the modern mind. Intensive studies of scholastic and Aristotelian ontology are necessary, and even then, conclusions tend to differ dismally. The aim of our structural analysis at this point may be formulated quite simply as follows: to lessen the burden of understanding by pointing to properties that are easier to grasp and that are extensionally equivalent with the more difficult ones. The system of Spinoza is largely available on the extensional level. Complete understanding of connotations is perhaps beyond our capacities but also largely unnecessary for the application of his philosophy to the problems of human life.

Most of these theorems are obvious derivations from a small set. Why then extend the exposition to such a length? Because careful and extensive derivation from propositions firmly based on the text of the *Ethics* reveals hidden structures and supports conclusions of importance to any coherent, understandable interpretation.

Survey B Using Symbols

New Symbols:

PCNE(x)	it is possible to conceive x as nonexistent
ENPC(x)	existence of x belongs to that without which x cannot be conceived
L(x)	x is free (<i>liber</i>)

Again, for the sake of brevity, we employ the abbreviated logical formulas.

Survey B

SB ₁	PCNE a -PCNE	cf. ES a -ES, CS a -CS, -RE a RE, etc.
SB ₂	-PCNE ekv ENPC	cf. ID ₁ , IP ₇ Dem, and IID ₂
SB ₃	PCNE ekv -ENPC	from SB ₂ ; cf. IA ₇ and IID ₂
SB _{3a}	ENPC ekv CS	from ID ₃ and IP ₇
SB ₄	PCNE ekv CA	logically derivable from SA ₆ , SB ₃ , and SB _{3a}
SB ₅	-PCNE ekv CS	logically derivable from SB ₂ and SB _{3a}
SB ₆	PCNE ekv EA	from SB ₄ and SA ₁₄
SB ₇	-PCNE ekv ES	from SB ₆ and SA ₁
SB ₈	PCNE ekv RC	from SB ₄ , SA ₈ , and SA ₁₈
SB ₉	PCNE ekv RE	from SB ₈ and SA ₁₈
SB ₁₀	L ekv ENPC	suggested by ID ₇ , IP ₇ , and IID ₂
SB ₁₁	-L ekv PCNE	from SB ₁₀ and SB ₃
SB ₁₂	L ekv -PCNE	from SB ₁₀ and SB ₂

Survey B Using Symbols

SB13	-L ekv -ENPC	from SB11 and SB3
SB14	L ekv ES	from SB7 and SB12
SB15	-L ekv EA	from SB14 and SA1
SB16	L ekv CS	from SB5 and SB12
SB17	-L ekv CA	from SB4 and SB11
SB18	L ekv -RE	from SB1, SB9, and SB12
SB19	L ekv -RC	from SB1, SB8, and SB12

III

Causation, Cognition, and Action

The Hypothesis of Cognitive-Causal Parallelism

In what follows I make use of a general *hypothesis of parallelism*:

If and only if y can be conceived through x , is x the cause of y ; and if and only if x is the cause of y , can y be conceived through x .

The parallelism between causing and the possibility of conceiving is based on the structural parallelism of theorems of causing and conceiving in Spinoza's text. In interpreting the formulation of the hypothesis in various directions, we have had seventeenth-century uses of the Latin *causa* in mind, not every modern use of *cause*.

It should also be borne in mind that the cognition in Spinoza is not the Platonic mirroring but a dynamic process not to be separated from action. The parallelism is therefore better characterized as lambanological-causal. We grasp and, when grasping, act as causes.

For certain classes of x and y , the hypothesis of parallelism is directly and strongly confirmed by references to places in the text of the *Ethics*; for other classes, there is confirmatory evidence of a more or less indirect character. For still others, there is neither direct confirmatory nor direct disconfirmatory evidence. This is the largest class, comprising relations between particular things different from persons. There is, taken all together, more support for the hypothesis than for its negation: "there are x 's and y 's such that although y can be conceived through x , x is *not* the cause of y ; and there are y 's and x 's such that although x is the cause of y , y cannot be conceived through x ."¹

It is not possible to subsume all occurrences of "adequate" (*adequatus*) conception or cognition and causation under a single concept. The particu-

lar concept that is preferred in what follows is directly supported by many passages, for instance by IIP29Sch:

I say expressly that the mind has no adequate but only confused cognition (*cognitio*) of itself, of its body, and of external bodies, when it perceives a thing in the common order of nature, that is, whenever it is determined externally, that is, by fortuitous circumstances, to turn its attention to this or that, and not when it is determined internally, that is, by turning its attention to many things at once, to understand their agreements, differences, and oppositions one to another.

From the above, I infer the following sufficient condition of adequate cognition and conception: A thing (*res*) is an object of adequate cognition and conception when it is conceived in relation to many things (*res*), and when agreements, differences, and oppositions have been noted. Sometimes, but not always, Spinoza uses *in part* (*ex parte*) as a synonym for *inadequate*. This is clear in IIP11Cor, in which he uses the expression “in part or inadequate.” This criterion is well suited as a description of cognition of the second kind (in the terminology of IIP49Sch2).

An example of adequate cognition is an act. It is internally determined and caused, whereas inadequate cognitions are externally determined and caused. That is, the cognizer is active in the former kind of situations and passive in the latter.

The emphasis on “many things” suggests the organic conception of nature. Particular things have internal relations to others in such a way that isolation and delimitation are more or less arbitrary. That a thing is only cognized “in part” should be interpreted as “only in parts of its relevant connections with others.” Particular things are only more or less arbitrarily (fortuitously) isolated parts of more comprehensive (also more or less fortuitously isolated) units, which together form total nature.

One special concept, ‘inadequacy of conception’, is based on this “partiality” relation, making it natural to say that we perceive a thing partially or, in other words, inadequately, *ex parte sive inadequate* (IIP11Cor). Inadequacy may certainly be interpreted in other directions, but the concept of partial perception will carry us quite far, and it has the merits of clarity and simplicity on its side.

If we take things to be thoroughly immersed in fields or structures of relations, we must recognize that any attempt to isolate or abstract from

these relations will result in some inadequacy in perceiving and conceiving things.

In what follows, “inadequate” is taken in an approximate sense of “taking things in isolation, one by one, as in the common order of nature.”² A somewhat more nuanced distinction will be introduced when the fundamental predicate is graded. A rather arbitrary isolation of a thing from internally related contexts may yield cognition that is good enough for certain purposes in limited practical situations. The central metaphysical importance of the awareness of arbitrariness does not exclude the central practical importance of isolation. This is one reason for stressing the adjective *partial* rather than *inadequate*. A partial conception of something may in a sense be just what is needed in a practical situation. I say “in a sense” because the awareness of the partiality and arbitrariness must somehow be required in order for so-called practical, everyday problems to be solved within the framework of the good life or the complexity of human social organization.

In what follows, “inadequate cause” is taken to be a partial cause. There is nothing wrong with inadequate causes—they are just not the total cause of anything! The problems confronting the interpretation of *inadequate* as applied to causes are considerably less heterogeneous than those applied to cognition. In the latter context, one must take up questions concerning inadequate *ideas*—a formidable nest of unsolved problems of interpretation and consistency.

Using the general hypothesis of cognitive-causal parallelism stated at the opening of this chapter, I shall now turn to a systematic presentation of some theorems.

Survey of Theorems

Causation, Understanding, and Existence

C₁ If something is the adequate cause of something, the latter can be adequately conceived through the former.

Add C₁ IA₄, IIID₁, IIID₂, IIIP₁, and IIIP₃.

As an example of positive evidence of C₁, let us take IP₃Dem. Here, Spinoza wishes to demonstrate that if a thing *x* has nothing in common with a thing *y*, *x* cannot cause *y*. He uses IA₅, from which he infers that if

x has nothing in common with y , y cannot be intelligently understood through x . The lack of understandability he then takes as proof of lack of causality. He also uses IA4, saying that the conception of the effect depends on and involves the conception of the cause. Thus, we may rely on a criterion “ x is not the cause of y ,” namely, “ y cannot be understood through x ,” and vice versa.

In order to tackle one difficulty at a time, I frequently use the term *adequately conceived* to cover the terms *understood* and *adequately understood* (Latin terms: *concipere*, *intelligere*). We take “ x is conceived” to be a necessary but not a sufficient condition of “ x is understood,” elevating “understanding” to a higher level. The term *conceived*, already used in chapters 1 and 2, we shall interpret in chapter 3 to mean “adequately conceived.” Thus, when making use of, for example, A10, we take it to be synonymous with “What cannot be *adequately* conceived through (itself plus) something else. . . .”

In IIID1, both *percipi* and *intelligi* are used. It is not difficult to find reasons for *percipi* meaning something different from *concipi* here, but the system of Spinoza seems to require that *concipi* might have been used in IIID1.³

I have therefore retained the old terminology from chapter 2, using the term *conceive*.

- C2 If something can be adequately conceived through something, the latter is an adequate cause of the former.

- Add C2 This is only the converse of C1. In its generality, it cannot be based on any explicit proposition of the *Ethics*. However, C2 does not contradict any such proposition. Moreover, the negation of C2 would lead to inconsistencies or unanswerable problems.⁴ The absence of a possibility of understanding is taken to be a sufficient condition for the absence of a causal relation.

- C3 That which is an adequate cause of something is something through which that thing can be adequately conceived, and vice versa.

- Add C3 From C1 and C2. The phrase *and vice versa* is added to eliminate an important ambiguity. The ambiguity often makes itself felt when Spinoza says that something, A , *is* something else, namely, B . Is B in such cases also A ?

The modal expression “can be conceived” is used, but later we will use the simpler “is conceived.” We write “an adequate cause” rather than “the adequate cause,” because we will not exclude the possibility of there being many adequate causes. Some causes may be reduced to others. For instance, *A* and *B* might both be adequate causes of *C*, but only *A* might also be an adequate cause of *B*. Then we may say that cause *B* of *C* can be reduced to cause *A*, or *A* to *B*. Here only one of the two is sufficient to be taken as an adequate cause. In other cases, no such reduction of two to one might be possible.

In C1–C3, “cause” is meant to be taken in a wide sense to cover many important subclasses of causes.⁵ This also makes it prudent not to postulate that if *A* is an adequate cause of *B*, then it is the only one (even at the level of connotations). God or substance is always an adequate cause of each and every thing, but as we shall see, a person may also be an adequate cause of something. This suggests that when cause is taken in a sufficiently wide sense, there may be two adequate causes of something. It is unlikely that we can fully understand what Spinoza personally meant by *causa*.

- C4 If something is an inadequate cause of something else, the latter can only be inadequately conceived through the former.

- Add C4 Suggested by IIID1. Instead of *inadequate*, we might say *partial*, *ex parte* (IIP11Cor). In the long run, the part/whole distinction seems to offer the most coherent versions of Spinoza’s system. It is also more understandable or accessible for contemporary readers.

- C5 If something can be inadequately or partially conceived through something else, the latter is an inadequate or partial cause of the former.

- Add C5 The term *partial cause* occurs in the last phrase of IIID2. By analogy, we introduce “partially” and “inadequately” conceived.

- C6 That which is an inadequate cause of something is something through which that something can be inadequately conceived, and vice versa.

CAUSATION, COGNITION, AND ACTION

- Add C6 From C4 and C5.
- C7 If something is the adequate cause of itself, it is (adequately) understood through itself.
- Add C7 As a particular case, where the two somethings x and y of previous propositions concerning “ x causes y ” are the same, we arrive at the notion of *causa sui*. As a corollary we construct a notion “ x conceived by x ” (*conceptus sui*—if we permit ourselves to form our own Latin). By means of ID₁ and IID₁, we make a connection between “adequate causation” and “conceived through itself.”
- C8 If something is understood through itself, it is the adequate cause of itself.
- Add C8 Modal version: if something is capable of being understood through itself, it is the adequate cause of itself.
- C9 An adequate cause of itself is something that is (adequately) understood through itself, and vice versa. (So much for parallelism between causation and conceiving!)
- C10 If something is adequately caused by itself, existence belongs to that without which it cannot be conceived, and vice versa.
- Add C10 According to ID₁, “ x adequately causes x ” is equivalent to “the nature of x cannot be conceived except as existent.” Using the definition of essence (IID₂), we reformulate this as “existence belongs to that without which x cannot be adequately conceived.” This property has already been introduced in chapter 2. Thus, we are entitled to base C10 on ID₁ and IID₂.

By means of these propositions, causation and understanding are connected with notions previously introduced. It is therefore easy to derive many propositions of interest by cross-references. As it is more convenient to survey the relation when certain symbols are introduced, a sample of such propositions will only be formulated in their symbolic form.

Activeness

Activeness is so central to Spinoza's world outlook that it should be formally introduced in our reconstruction as early as possible.

A free thing is said, in ID7, to be one that is determined to act (*agere*) or, rather, to be active solely through or from or by itself (*a se sola ad agendum determinatur*). The supplement *be active* is crucial because, according to Spinoza, emotions are forms of *agere*, although scarcely actions in any standard use of *to act*.

Surveying the applications of the term *to be active* (*agere*), we may safely link it to activeness in a wide, positive ("metaphysical") sense, with *being passive* (*pati*), being acted on, sometimes as its opposite, sometimes as a particular way of *agere*, namely, the *more or less* passive way (IIID2, IIIP1, IVP2).

We should not expect these terms to behave exactly as *to be active* and *to be passive* do in current everyday usage. *Agere* is used as part of the technical vocabulary of the system, and it applies to all living things, perhaps all particular things whatsoever. I use it in relation to all living beings in my reconstruction.

The numbering of theorems in the following shows lacunae that are eliminated in the symbolic version, which also introduces some less interesting but necessary propositions. We shall now link "to be active" with "to cause," taking IIID2 as a starting point.

- C30 If x causes y adequately, x is completely (wholly) active in relation to y .
- C32 If x is completely (wholly) active in relation to y , x causes y adequately.
- C34 If something is completely active, it is always an adequate cause, and vice versa.
- C36 If y is understood through x , then x is completely active in relation to y , and vice versa.
- Add C36 From the extensional equivalence of causation and understanding we thus derive an extensional equivalence between "being completely active" and "understanding" (in relation to something).

The above theorems map out the fundamental structural relations of causation, activeness, and understanding.

Even though it is not part of our reconstruction, it is difficult to avoid giving at least a tentative answer to a burning question of content: what would be a typical attitude or behavior such that Spinoza would say it manifests those structures?

Suppose a person makes a hat from leaves and places it on his head. The making of the hat and the covering of the head might be understood (or completely conceived) through him, that is, knowing his personal inclinations and purposes. In this case, he adequately causes the hat and covering to exist, and he is completely active in relation to the hatmaking and covering of his head. This is not the same, however, as to assert sweepingly that a hat in all its total relations to other things is completely conceivable through the hatmaker. We are talking only about a particular event. The hat is an extremely complex phenomenon—as all natural objects are unfathomable and give unlimited opportunities for research. What was said above has to do with particular, temporal acts of the hatmaker and the effects of these acts.

Similar remarks are relevant to causing as it relates to conceiving. Another example: The engineer, having designed and erected an enormous tower as part of the equipment for transporting electricity, is highly active in relation to the tower and a wider field of relations involving the tower. However, the division of labor atomizes and makes highly abstract and incomplete the technical creations. Here, of course, one may dive into the philosophy of labor as developed by Hegel, Marx, and others and connect Spinoza with the deep ecology movement (Naess 1973 [in SWAN XI]).

The complete activeness of a person's relation to nonliving things is relatively unproblematic. On the other hand, we can scarcely say that a person *A* can be completely active in all relations to another, *B*. *A* cannot possibly be the total cause of *B* as long as *B* retains his personhood, and *B* could not possibly be fully conceived through *A*.

All particular things have an essence; they are not “completely in something else.” Can *A*, however, totally cause the essence of *B* if *B* is not a person? This seems to be the case. People do make new things (but not natural objects!). After something is made, it has an existing essence and it may cause still more things. Counter to this it may be argued that a particular thing *in extenso* is only partially made by man. He does not *create* particu-

lar things. “A causes B totally” may tentatively be limited to aspects or properties or partial relations of things, if A is not God.

Sub specie aeternitatis, only substance or God is the adequate cause, but this reflection does not concern us here. We are, in taking God into account, concerned by God “insofar” or “as (*quatenus*) affected by something.” This is one of the reasons that we do not introduce the term *God (Deus)*.

So much for adequate or total relations. Considerations of symmetry speak strongly in favor of linking partial activeness with partial causing and partial conceiving.

C39 If x is an inadequate or partial cause of y , x is partially active in relation to y .

C40 If x is only partially active in relation to y , x is an inadequate or partial cause of y .

Add C40 Spinoza’s system does not contain any notion of complete passivity, that is, passivity in all relations. From theorems C39 and C40 we may infer that passivity for Spinoza is a low grade of activeness, not the absence of it. In some relations, particular things may be completely active and in others, completely passive.

Human Beings as Part of Something Else

Spinoza stresses the fundamental characteristic of a person as one particular among other particulars. He also stresses the infinitesimal smallness of an individual’s power in relation to that of the rest of the field of particulars—nature as a whole—and he dwells on the slavery of the immature person under the passive emotions. The following theorems give expression to the location of human beings among those things that are in something else, that are conceived through something else, and so on.

C43 If x is a person, x is in something else.

C45 If x is a person, x is conceived through something else.

C47 If x is a person, x can be conceived as nonexistent.

A person is part of something, and personal identity is relational. Human beings are not part of something in the same way that quartz crystals are part of sand, but rather in the way that oxygen is part of water. Human beings exist *in* the personal relations, as a changing center of interactions in a field of relations. Human beings are not an ultimate constituent of anything. Neither human beings nor the things they relate to exist, as such, apart from these relations. The relata exist only in the relation. This is, briefly, the *relationism* of Spinoza.

Some of the personal relations are such that through them human beings can be said to cause adequately, to conceive adequately, and to act in a given situation without any ingredient of passivity.

On the basis of such considerations, an account of personal identity may be tentatively constructed. After all, it is scarcely an absolute, timeless identity we seek, but something slightly less ambitious. Ruth Saw (1969) seems to find difficulty in giving an account of personal identity in the sphere of extension, but the flame of a candle burning in quiet air provides a good model of “identity in interaction.” The particles that move rapidly upward do not define the flame in spite of its being made up from these particles (according to Spinoza and others). A person can be conceived to have the flame aspect extensionally and the unified-soul aspect nonextensionally. This brings us to the brighter side of Spinoza’s teaching: human beings do not always in all relations cause or conceive something only partially.

C52 Every human being conceives something adequately.

According to IIP47, human beings have an adequate conception of God’s essence. From previous propositions used in proving IIP47, it can be shown that Spinoza also acknowledges other adequate conceptions that are not peculiar to privileged persons but belong to all of us. Thus, there are “common” adequate ideas (IIP38, IIP38Cor). Further, the proof of IIIP1 opens with “Of the ideas of the human mind, some are adequate, others fragmentary and confused.”

C54 Every human being causes something adequately.

When a human being conceives something adequately, he ipso facto causes something adequately according to our hypothesis of parallelism

(C2). The theorem is further supported by the doctrine of man's *active* emotions. We are their adequate causes (cf. IID3, italicized addendum).

Thus, even though human beings start low on their road to freedom, as more or less slaves of passive emotions, they have the necessary causal and cognitive endowment to crawl upward. There are no emotions (according to VP4Cor) from which we cannot form an adequate idea. They all can develop into active emotions.

Instead of "human being" in C52 and C54 one might write "adult human being," taking account of Spinoza's view of children. In his discussion of the stone that believes it is falling from free choice (*Letter* 58), Spinoza seems to take the level of freedom of small children to be somewhere between that of a stone and that of adults.

From the assertion that a human being is sometimes an adequate cause of something, and thus that something can be adequately understood through him, we may infer that in certain relations human beings are *in se*, not *in alio*. In these limited relations or, better, interactions, man has a god-like ontological status that Spinoza does not stress in spite of its existence as a requirement of his system. The interdependence of God or substance and the modes may also be argued forcefully in this connection: When I am an adequate cause of an action, it can be fully understood through me. I am "*in se*," "independent of anything else," and thus, in this relation, like God. The act cannot be, nor be understood, without me. It is "*in me*."

Without the act, without the medium, I cannot be, nor be understood, even in this relation. Thus, I am *in one important sense* always dependent on something else. Unlike God, that is, the totality? No. The same holds for God or substance. Without the mode, nothing is left of God or substance. It is an unavoidable consequence of the principle of immanence.⁶

Survey C Using Symbols

New Characters in Symbols:

H	person, <i>homo</i> , <i>nos</i>
Ad	adequate
In	inadequate

CAUSATION, COGNITION, AND ACTION

New Symbols:

$D(xy)$	x is a cause of y , adequate or inadequate, partly or totally
$InD(xy)$	x is an inadequate cause of y , x is partly a cause of y
$AdD(xy)$	x is a cause of y , and not inadequately; x is an adequate cause of y , x is a total cause of y
$C(xy)$	through x , y is conceived in part or in toto, adequately or inadequately
$InC(xy)$	through x , y is conceived in part or inadequately
$AdC(xy)$	through x , y is conceived, and not inadequately, but adequately; through x , y is adequately conceived
$G(xy)$	x is active in relation to y , adequately or inadequately, partly or totally
$InG(xy)$	x is passive in relation to y ; x is inadequately (only partly) active in relation to y
$AdG(xy)$	x is adequately or totally active in relation to y
$H(x)$	x is a person
$E(xy)$	x is in y

To avoid the unrewarding complexity of modal logic, we do not picture the “can” in “can be conceived” in our symbols, writing $C(xy)$ indiscriminately for “through x , y is in fact conceived” and “through x , y can be conceived.” If “in fact” is taken in a purely realistic way, no causation between x and y occurs in nature except when there is somebody who actually conceives y through x . This is a drastic kind of “idealism” foreign to Spinoza.

For the sake of simplicity, I use only the two variables x and y . A third variable would help in making the symbolization more adequate: $AdD(xyz)$ — “ x is an adequate or total cause of y in situation (context, relation) z .” When a person does something freely, he causes something adequately, but it happens within a context, not in complete generality. One might, of course, define the two-valued D in such a way that the context is

included as a conceptual characteristic, making y limited to context; but that is terminologically awkward. Introducing this third variable will be convenient in certain later sections.

Survey C

The first nine theorems concern the relations between causality and understanding.

SC ₁	$\text{AdD}(xy) \supset \text{AdC}(xy)$	Based on the first part of IIID ₁ and on IP ₃ Dem. “If something causes something else adequately, the latter is conceived, and not inadequately, through the first.” “If x is an adequate cause of y , y is adequately conceived through x .”
SC ₂	$\text{AdC}(xy) \supset \text{AdD}(xy)$	Based on IIID ₁ , first part. “If something is conceived adequately through something else, the latter causes the former adequately.” “If y is adequately conceived through x , x is an adequate cause of y .”
SC ₃	$\text{AdD}(xy) \sim \text{AdC}(xy)$	From SC ₁ and SC ₂ . Based on IIID ₁ , first part. “There is mutual implication between adequate causation and adequate conception.”
SC ₄	$\text{InD}(xy) \supset \text{InC}(xy)$	Based on the second part of IIID ₁ . “If x is a partial cause of y , y is conceived in part through x .”
SC ₅	$\text{InC}(xy) \supset \text{InD}(xy)$	Based on the second part of IIID ₁ . “If y is in part conceived through x , x is a partial cause of y .”

CAUSATION, COGNITION, AND ACTION

SC6	$\text{InD}(xy) \sim \text{InC}(xy)$	From SC4 and SC5. Based on IID ₁ , second part. “There is mutual implication between causation (<i>ex parte seu inadequate</i>), and conception (<i>ex parte seu inadequate</i>).”
SC7	$\text{AdD}(xx) \supset \text{AdC}(xx)$	From SC1. Cf. ID ₁ and IIID ₁ . “If something causes itself adequately, this something is conceived adequately through itself.”
SC8	$\text{AdC}(xx) \supset \text{AdD}(xx)$	From SC2. Cf. ID ₁ and IIID ₁ . “If something is conceived adequately through itself, and not part of it, this something is its own adequate cause.”
SC9	$\text{AdD}(xx) \sim \text{AdC}(xx)$	From SC7 and SC8. “There is mutual implication between self-causation and self-conception.”

The next twenty theorems (SC₁₀ through SC₂₉) concern the relations that connect causality and understanding to various factors already introduced in chapters 1 and 2.

SC ₁₀	$\text{AdD}(xx) \sim \text{ENPC}(x)$	From ID ₁ . “If something is an adequate cause of itself, then existence belongs to that without which it cannot be conceived, and vice versa.” “That which causes itself cannot be conceived as nonexistent.”
SC ₁₁	$\text{AdC}(xx) \sim \text{ENPC}(x)$	From SC ₁₀ and SC ₉ . “If something can be conceived through itself, then existence be-

longs to that without which it cannot be conceived, and vice versa.”
 “That which is adequately conceived through itself, is such that it cannot be conceived as nonexistent, and vice versa.”

The symbolic versions of the theorems make certain structural relations clear and explicit. When it comes to “translating” them into words, however, a great variety of questions arises. Apart from ambiguities and differences in preciseness, there are important hermeneutical questions involved in the translations. I have not tried to standardize translations. On the contrary, I have tried to exhibit the great range of wordings that suggest themselves. Part of the value of the symbolization derives from the fact that *only* certain structures are made (visually) manifest; that is, certain internal relations between clusters of terms, notions, and theorems.

Exactly analogous pairs of relations to the pair SC₁₀ and SC₁₁ hold with regard to the five predicates -PCNE, ES, -RE, CS, and -RC. We shall refer to them as SC₁₂–SC₂₁. The six predicates were introduced in chapters 1 and 2 as absolutes characterizing God and substance. Thus, ES(*x*) would mean the same as “AdES(*x*),” not “AdES(*x*) or InES(*x*).”

SC ₂₂	AdD(<i>xx</i>) ~ AdL(<i>x</i>)	From SC ₁₀ and SB ₁₀ . “If something is an adequate cause of itself, it is completely free, and vice versa.”
SC ₂₃	AdC(<i>xx</i>) ~ AdL(<i>x</i>)	From SC ₁₁ and SB ₁₀ . “If something is adequately conceived through itself, it is completely free, and vice versa.”
SC ₂₄	InD(<i>xx</i>) ~ -ENPC(<i>x</i>)	From SC ₁₀ . “If a thing is only inadequately a cause of itself, existence does not belong to that without which it cannot be conceived, and vice versa.”

CAUSATION, COGNITION, AND ACTION

SC25	$\text{InC}(xx) \sim \neg \text{ENPC}(x)$	From SC24 and SC6. “If a thing is only inadequately conceived through itself, existence does not belong to that without which it cannot be conceived, and vice versa.” Similar pairs of relations are obtained with regard to PCNE, EA, RE, CA, and RC.
SC26	$\text{InD}(xx) \sim \text{PCNE}(x)$	From SC12. “If a thing is only in part a cause of itself, it can be conceived as nonexistent, and vice versa.”
SC27	$\text{InD}(xx) \sim \text{EA}(x)$	From SC24 and SB6. “If a thing is only inadequately a cause of itself, it is in something else, and vice versa.”
SC28	$\text{InD}(xx) \sim \text{InL}(x)$	From SC22. “If something causes itself only partially, it is only partially free, and vice versa.”
SC29	$\text{InC}(xx) \sim \text{InL}(x)$	From SC28 and SC6. “If a thing is only in part conceived through itself, it is only in part free, and vice versa.”

The next thirteen theorems have to do with activeness, especially the important parallelism between being active and understanding.

SC30	$\text{AdD}(xy) \supset \text{AdG}(xy)$	From generalizing IIID2, first part. “If something adequately causes something, it is adequately active in relation to it.”
------	---	--

SC ₃₁	$H(x) \& AdD(xy) \supset AdG(xy)$	Suggested by IID2, first part. Logically derivable from SC ₃₀ . “If a person is the full cause of something, he is fully active in relation to it.”
SC ₃₂	$AdG(xy) \supset AdD(xy)$	Suggested by generalizing IID2, first part. “If something is fully active in relation to something else, it adequately causes it.”
SC ₃₃	$H(x) \& AdG(xy) \supset AdD(xy)$	Logically derivable from SC ₃₂ . “If a person is completely active in relation to something, he causes it adequately.”
SC ₃₄	$AdG(xy) \sim AdD(xy)$	From SC ₃₀ and SC ₃₂ . “If a thing is fully active in relation to something, it causes it adequately.”
SC ₃₅	$H(x) \& AdG(xy) \sim AdD(xy)$	Logically derivable from SC ₃₄ . “If a person is fully active in relation to something, he causes it adequately, and if he thus causes a thing, he is fully active in relation to it.”
SC ₃₆	$AdC(xy) \sim AdG(xy)$	Suggested by IID2, second part. Logically derivable from SC ₃ and SC ₃₄ . “If something is adequately conceived through something else, the latter is adequately active relative to the former, and vice versa.”
SC ₃₇	$H(x) \& AdC(xy) \sim AdG(xy)$	Logically derivable from SC ₃₆ . “If something is adequately conceived through a person, this person is adequately active relative to it, and vice versa.”

CAUSATION, COGNITION, AND ACTION

SC ₃₈	$CS(xy) \sim AdG(xy)$	From SC ₃₆ . “To understand something through oneself implies being active toward this something, and vice versa.”
SC ₃₉	$InD(xy) \supset InG(xy)$	Suggested by IID ₂ , second part. “If a thing is partly a cause of something, it is partly active in relation to it.”
SC ₄₀	$InG(xy) \supset InD(xy)$	Suggested by IID ₂ , second part. “If a thing is only inadequately active in relation to something, it is only inadequately its cause.”
SC ₄₁	$InG(xy) \sim InD(xy)$	From SC ₃₉ and SC ₄₀ . Based on IID ₂ , second part. “To be partly active in a relation and to be a partial cause mutually imply each other.”
SC ₄₂	$InG(xy) \sim InC(xy)$	From SC ₃₉ and SC ₆ . “If something is only partly active in relation to something, the latter is inadequately conceived through the former.”

The next nine theorems (SC₄₃ through SC₅₁) concern human smallness as a prelude to the assessment of human greatness—a greatness, however, that must share in some important ways with every particular thing.

SC ₄₃	$H(x) \supset EA(x)$	A person is a <i>modus</i> (IIP ₁₀ Cor), and a <i>modus</i> is something in something else. Cf. ID ₅ . “A person is something that is in something else.”
SC ₄₄	$H(x) \supset -AdES(x)$	From SA ₁ and SC ₄₃ . “A person is not something that is totally in itself.”

SC ₄₅	$H(x) \supset CA(x)$	From SC ₄₃ and SA ₁₄ . Suggested by ID ₅ and by the notion of a person as a <i>modus</i> . “A person is conceived through something else.”
SC ₄₆	$H(x) \supset -AdCS(x)$	From SC ₄₅ and SA ₆ . “A person is not conceived totally through itself.”
SC ₄₇	$H(x) \supset PCNE(x)$	From SC ₄₃ and SB ₆ . “A person can be conceived not to exist.”
SC ₄₈	$H(x) \supset -ENPC(x)$	Suggested by IIA ₁ and IID ₂ . Logically derivable from SC ₄₇ and SB ₃ . “It is not so that human existence belongs to that without which a person cannot be conceived.”
SC ₄₉	$H(x) \supset -AdL(x)$	From SC ₄₈ and SB ₁₃ . “No person is totally free.”
SC ₅₀	$H(x) \supset RE(x)$	From SC ₄₇ and SB ₉ . “A person requires something else in order to exist.”
SC ₅₁	$H(x) \supset RC(x)$	From SC ₄₇ and SB ₈ . “In order to be conceived, a person requires the conception of something else.”

All these theorems on the smallness or limitations of human beings presuppose the absoluteness of the dichotomies in part I of the *Ethics*. They also presuppose the cleavage straight under the absolute maximum of a predicate: “being in oneself” and “free” are synonymous with “being completely, absolutely in oneself” and “being completely, absolutely free,” whereas the least bit of being in something else or being a trifle less free than Spinoza’s God immediately pulls a thing down into the region of “being in something else” and “being not free.” In the rest of the *Ethics*, however, the dichotomies of part I are mollified.

In IIP6Dem, it is said that God *acts* through each particular thing. When God expresses himself, he does not do so by means *of*, but *through*, the modes. No other way of expression is mentioned in the *Ethics*. All modes *are* such expressions.

In IIP6Dem, the process of expression may be said to be explained or elucidated by the statement that God *is* and *acts* through particulars. It is an admirable way of formulating the immanence of God. Since God is not different from substance, the activeness of substance is fully contained in, and dependent on, the activeness of modes. Theorems SC52 and SC53 assert something about particular things, not about any thing (*res*) whatsoever. The symbolic form does not take that into account. It could be done by introducing a predicate $\text{Par}(x)$. SC53 would then run as follows: $(x) (\exists y) \text{Par}(x) \supset \text{AdG}(xy)$. For the sake of simplicity I have omitted such a predicate.

SC54	$(x) (\exists y): \text{H}(x) \ \& \ \text{AdD}(xy)$	From SC52. “Every person causes something adequately.”
SC55	$(x) (\exists y): \text{H}(x) \supset \text{AdG}(xy)$	From SC53. “Every person is completely active in at least one relation.”
SC56	$(x) (\exists y) \text{AdC}(xy)$	From SC52 and SC3. “Everything is such that there is at least one thing that is adequately conceived through it.”

IV

Grading Basic Distinctions

Survey D

Freedom: A Matter of Degree

In part I of the *Ethics*, Spinoza introduces a series of predicates: “in itself,” “conceived through itself,” and others. There is no gradation or qualification, but neither are there any explicit attacks on gradualism. In later parts, however, some of the same predicate words express graded predicates, or they appear with other qualifications that rule out the view that they represent absolute dichotomies. In what follows we shall refer to such deabsolutizing as forms of “grading” in a wide sense.

Thus, in IVP59Dem and IVApp31, perfection is graded. Man is capable of increasing his degree of perfection. In IVP73Dem, the expression “freer” (*liberius*) is used. Man is capable of living *freer*, in *greater* freedom.¹ The theorem itself contains the expression “more free” (*magis liber*): “The rational man [*homo qui ratione ducitur*] is more free in a state . . . than alone.” We may also use degree of freedom to reflect variations in relation to circumstances: “[I]nsofar as he endeavors to live in freedom, he desires to order his life according to the general good. . . .”

In *Letter 21*, there is another occurrence of grading: “The external factor is the element of coercion, the inner factor is the factor of freedom—the more the latter predominates, the more free we are [*eo liberiores simus*].” In *Notes to the Theological-Political Tract*, we find several occurrences: “In whatever state a human being may be, he can be free. For certainly, man is to that extent free, to which he follows reason [*eatenus liber est, quatenus ratione ducitur*]. . . . [T]he more man is led by reason, that is, the more he is free . . .” (*Adnotatio* 33). Similar occurrences are found in the *Political Treatise*.

GRADING BASIC DISTINCTIONS

In parts III, IV, and V of the *Ethics*, the free man is sometimes characterized by words reserved in part I for God and substance. One might infer from this that the free man is a kind of transcendental ideal, never to be reached. But from many propositions it is clear that there are free men. As regards the basic *in se* predicates, several are applied to the free man, and many other predicates linked to them by equivalences are used in prominent theorems.

From the mutual implications of theorems on freedom and theorems on being in oneself, having power, being adequate cause, and so on, the grading of freedom implies grading of the other *in se* and *in alio* predicates.

Let us for a moment consider what would follow if we make the assumption that in the later parts of the *Ethics* Spinoza uses the absolutist dichotomies of part I. The free man is characterized by his “acting out of the laws of his own particular nature” (*ex legibus propriae naturae agere*; see IVP24Dem), and by his “doing what follows necessarily from his nature” (cf. IVP24, IVP26Dem). The free man acts out of virtue: that is, he performs actions that can be understood from the laws of man’s nature alone. This implies that the free man can be adequately conceived by himself, which in turn makes man, according to Spinoza’s own teaching in part I, a substance. Ultimately, this implies that each man is God himself. The famous prelude of the fifth part (*Transeo tandem ad alteram Ethices partem . . . , quae ad Libertatem ducit*) could be interpreted as a prelude to a treatise on how to become God. Part V would have to be interpreted as a description of how to reach *absolute* freedom by a sudden metaphysical jump from absolute slavishness (lack of freedom) to the divine level of liberty.

These consequences of extending the absolute dichotomies of part I into parts IV and V are clearly un-Spinozistic. Man is neither an absolute slave nor God. Spinoza’s description of the free man can be made consistent with man being different from God and substance by introducing three levels of freedom, power, and other characteristics that are predicated both of God and of men. The levels can be conceived as that of absolute absence of a predicate, limited possession of it, and absolute, unlimited presence. Thus, there is a grading involved. Our reconstruction makes use of *the principle of grading the basic predicates*.

Men participate more or less in freedom, or they are more or less free, because they are more or less reasonable. The more we go into the details of

Spinoza's descriptions of free and unfree man, the more dimensions we see of this freedom. Not only is the simple dichotomy of free versus unfree incompatible, but there are also several dimensions to be distinguished in defining each level.

Tentative definition: a predicate shall be said to be graded if it holds more or less, in some but not all respects, in some but not all situations, sometimes but not always, partially but not totally, in some relations but not in all. The terms *graded* and *in degrees* as used here are thus a collective name for a family of related properties. Gradedness has, *prima facie*, at least four dimensions.

Let us take the case of reasonableness. To act out of virtue is to be led by reason (*ex ductu rationis vivere*), and grading is quite natural here. We may in the time dimension be sometimes, not always, led by reason; we may in certain kinds of situations not at all be thus led—in some relations, not in all. On comparing two people in the same narrow kind of context, we might say that the one acts completely, fully, adequately rationally, the other only inadequately. In a particular context a person may exhibit no trace of irrationality. This suggests that we may also say he acts completely freely in that context, and that he is an adequate cause of his own action. The summing up of irrationality and rationality in one measure is, however, out of the question.

If on being given a definite task at a definite moment in a definite social setting two people act in this same context, we might on the basis of their performance conclude that the one acts more rationally than the other. In the next moment, though, a second act has to be performed, and our judgment might be the opposite; the less rational in the first context acts more rationally in the second. Which person scores best when both contexts are counted together? The principle of grading does not presuppose that there is a rule here. The principle of grading is not a *principle of quantification*.

Similar grading applies to a number of other predicates; for instance, to the predicate "conceive through itself." A conception may be more or less complete, adequate, profound, lively, and dynamic. It may be more or less consistent through time, through repeated applications, or through applications in different situations; and the extent of the relations in which something is conceived through itself may vary. Further, there is a progression from inadequate, indistinct, confused, and fragmentary conceptions to

GRADING BASIC DISTINCTIONS

adequate, distinct, clear, and comprehensive conceptions. This cannot but interact with the level of “understandability through oneself” and of “extent of being in oneself.” The latter expression is used in IIP6.

Already in part I the important but difficult expression “as” or “insofar as” (*quatenus*) introduces a bridge between opposites. God appears “modified,” that is, manifested in particular things. In the long note IP15Sch, Spinoza talks about water “as substance” (*aqua quatenus substantia*). The term *quatenus* is a central one in Spinoza’s system but extremely difficult to comprehend in its several hundred occurrences. We take it to imply a gradation in the very wide sense introduced. A basic idea in its use is this: something, *x*, may be classed as a *y* and not a *z quatenus t*, whereas the same *x* may be classed as a *z* and not as a *y quatenus u*. Or, in the old *esse* terminology of Spinoza: “*x* is *y quatenus t*, and *z, quatenus u*.”

The widest, and therefore best, translation and interpretation of *quatenus* in these contexts seems to be “in relation to.” “Something *x* is *y* and not *z in relation to t*.” Very little is gained by using this expression; nearly all is left to the analysis of each particular occurrence of *quatenus*.

Another important bridge from absolutism to gradualism is furnished by an already mentioned class of expressions—“God considered as . . . ,” “God as affected by . . . ,” and so on—which leads toward a realistic concept of the immanence of God and substance in the world of particulars (cf. IIP9, IIP9Cor, IIP11Cor: “. . . God, not as infinite, but insofar as [*quatenus*] he is expressed by the nature of the human mind, or insofar as he constitutes the essence of the human mind, . . .”). The love of the transcendent God as conceived in the three great monotheistic religions makes sense, but love of a purely immanent God is something so different that to use the term *God* may be considered to be misleading. What Spinoza tries to convey is, at least in the seventeenth century, scarcely conveyable through using that term. Through the *quatenus* technique, Spinoza renders the terms *God* and *substance* avoidable in the exposition of the system. Their elimination, however, signifies a vast reduction in the persuasive, positive evaluation of the cosmos or of “what there really is.” On the other hand, the exposition without the terms gains intellectual clarity and acceptability in our century.

The important theorem on self-preservation (IIP6) has a grading: “Everything, insofar as it is in itself [*quatenus in se est*], strives to uphold it-

self in its being.” Later, gradation is presupposed when Spinoza discusses how man arrives at higher levels of perfection through joy. Joy is transition “from smaller to greater perfection” (III AffD2) and, therefore we may add, from smaller to greater reality (IID6). Also, how is he able to proceed from the first to the second and third kinds of knowledge? A grading of the quality of knowledge is made use of explicitly or at least implicitly. Of considerable importance is the grading of inadequacy of conceiving. Taking IIP29Sch as our point of departure, we note that a measure of adequacy is already introduced when we perceive many things at once. The more we perceive at once, the better. The contrast elaborated by Spinoza in IIP29Sch is that between perceiving a thing in complete isolation and perceiving it in relation to many others:

I say expressly that the mind has not an adequate but only a confused knowledge of itself, its own body, and of external bodies . . . whenever it is determined . . . by the fortuitous play of circumstance, to regard this and that; not at such times as it is determined . . . by the fact of regarding several things at once, to understand their points of agreement, difference, and contrast.

Although there are infinitely many things, man is barred from seeing all in their mutual relations. These are infinite for each thing. Thus, complete or absolute adequacy is out of the question. It is a prerogative of the infinite intellect, that is, of something not existing separately from anything whatsoever. We shall nevertheless assume that man can reach *high degrees* of adequacy perceiving many things in many relations.

Grading “Being in Itself”

Every particular, singular, concrete, finite thing is to a certain extent in itself and to another degree in something else. Similar qualifications apply, then, to all the equivalent properties. The resulting concept of a “particular, singular, concrete, finite thing” is similar to Spinoza’s concept of *res particularis* and *res singularis*. There are some differences, but in what follows, we do not take account of them.²

The above delimitation of a thing-concept is meant to furnish an answer to the questions “What kinds of ‘things’ are the *x*’s in expressions such

GRADING BASIC DISTINCTIONS

as ‘ x is more free than y ’ and ‘ x is more in itself than y ’?” “What is the range of the predicate?” The answer we give is that the x ’s are particular, singular, concrete, finite. Among such things, human beings, or better, *persons*, are our primary concern; they make up the “primary field of application.” We shall find evidence, however, that the fields are wider than that. In our reconstruction we shall conceive the things (*res*) to be *living* things. Persons as wholes are particulars rather than minds, human bodies, intellects, subjects, or humanity. It is our contention that Spinoza is basically trying to reach knowledge of particulars and to transcend mere knowledge of kinds, *species*. He wishes us to move from the first and second ways of knowing to the third, but not through the elimination of those kinds.

The technical terms *in itself* and *in something else* introduced in chapters 1, 2, and 3 express dichotomies, not graded magnitudes. From now on, these terms are viewed as graded. We retain the terms in our reconstruction but change their use. Rereading chapters 1–3, we shall now take the *in itself* terms as expressions of the absolute maximum of a graded property. Thus, we take *in itself* in chapters 1–3 to mean the same as “completely (wholly, absolutely) in itself”; *conceived through itself* to mean “conceived completely through only itself”; and *does not require something else* to mean “does not require anything whatsoever under any circumstances whatsoever.” We take the *in something else* terms as used in chapters 1–3 to be negations of the *in itself* terms, not opposites. Thus, *in something else* stands for “not completely (wholly, absolutely) in itself,” and not for “completely, absolutely not in itself” or “totally in something else.”

A particular thing is always to a certain extent, however small, in itself, never totally in something else. This is not said explicitly anywhere in the *Ethics*, but it fits the total text better than the opposite assumption. Evidence of this will be referred to at appropriate places. Since Spinoza himself constantly uses all four expressions “in itself,” “not in itself,” “in something else,” and “not in something else,” we have from the very beginning avoided the assumption that “not in itself” is identical with “in something else.” There is, however, no positive evidence that there is a difference, and from now on we assume that there is none.

We shall now offer a short, abstract, philosophical justification for the project of grading. The God of Spinoza, like the God of many other philosophers, expresses himself in infinitely many things in infinitely many ways.

These things, the particulars (*res particularis*), exist, have existed, or will exist, if we take *exist* to imply having a separable existence from God. However, a basic metaphysical idea of Spinoza is *the immanent God*. God's essence and power are completely expressed through the modes—nothing transcendent remains. Nothing exists as a separable being. The usual meanings of “x expresses itself through y” break down. An author or poet expresses himself through his poems, but *something* is left over when we strip him of his poems. Without modes, that is, when God is stripped of his expressions, there is no God.

In at least one important respect, therefore, God is dependent on modes. Modes are in God (*sunt in Deo*) and God is in himself (*est in se*), but nevertheless God is nothing apart. Therefore, the “*being* in something else,” insofar as it is characteristic of the relation between modes and God, is nothing but expressiveness of something. Perhaps one may say the immanent God does not exist but “is,” in the traditional scholastic terminology.

There is only one substance, according to Spinoza, namely God. He could have added “Substance is the only God.” I might add “To seek God is devotedly to seek maximum increase in substantiality.” Spinoza himself warns us not to take seriously any other statement about God than that he has extension and thought as attributes. This does not imply that God has a definite extension, finite or infinite, or that he is a definite thought. In that case we would have to assume the existence of God as something apart from other “existents,” and the principle of immanence would be lost.

These reflections are relevant here because they render it justifiable metaphysically to introduce a gradation of substance: *substantiality*. Substance is completely *in se*. The grades of being *in se* we might conceive as degrees of substantiality. It is better, though, to leave out such a term; it does not have the importance it had in the time of Descartes, Spinoza, and Leibniz. We shall leave out substance as a separable entity on a par with particular things and retain a property the infinite maximum of that which is named “being in itself” in Spinoza's *Ethics*, part I, and in chapters 1–3 of this work.

Our substitution of degree of substantiality for substance is not necessarily inconsistent with Spinoza's claim that God is not only an *ens rationis* but also an *ens reale*. The concept of a ‘whole’ or ‘concrete universal’ as explicated by Wolfson (1961, vol. 1: 325 ff.) is consistent with our idea of a maximal, infinite degree of substantiality. This can only belong to the whole (in

GRADING BASIC DISTINCTIONS

a certain metaphysical sense). The concept of such a maximum may be considered a clarification or “analysis” of the notion of whole.

Spinoza’s way of discussing substances, as, for instance, when he argues that there cannot be several substances, suggests that substances have a thing status rather than a property status. If, however, we use another formulation and substitute the term *maximal substantiality* for *substance*, saying that there cannot be several different maximal substantialities, Spinoza’s way of putting it makes good sense when applied to the text: there can be only one maximal substantiality. There may be a bunch of very closely related properties, such as being perfectly in itself, requiring nothing else to exist, being perfectly free, and so on, all with the same maximum.

The ultimate justification of a shift from substance as something thing-like to substantiality as a property can only be in terms of a shift in emphasis away from the particular theologico-philosophical problems of Spinoza’s time. The grading of “requirements for something, x , in order to exist” may be conceived as having to do with the many things required or the status of each required thing. A similar differentiation may be made in relation to some of the other predicates such as “conceptions required in order that x may be conceived” and “other concepts involved in the concept of x .”

At first glance, the following two basic predicates might seem ungradable: “can be conceived as nonexistent” and “existence belongs to that without which something cannot be conceived.” However, they are scarcely less gradable than the predicate “free” when interpreted in full context, and to give up their grading would, because of the intimate interrelations of properties, create vast difficulties for grading other basic predicates. If something can be conceived as nonexistent, one may ask how many other things are lacking in order to ensure its being inconceivable as nonexistent. Or what status do those things have? The superbly free man may be said to require less than the one who is not that free. A similar gradation is conceivable in relation to the other existence predicates, but scarcely without special difficulties.

To show the implications of grading more clearly, we shall now state a few graded theorems corresponding to the theorems of chapters 1, 2, and 3. The graded theorem corresponding to an ungraded theorem, A_n , where n is a number, is named Ag_n —where “g” stands for “graded.” Thus, the graded theorem Ag_1 corresponds to the ungraded theorem A_1 of chapter 1.

- Ag1 That thing which is, is either totally in itself or partly in something else, but never totally in something else.

Instead of the word *partly* we might use *more or less, to some degree, in some ways, in some relations, in some interactions, in some respects, conditionally, in varying nonmaximum degrees*. We do not consider this wide freedom of choice to be ultimate. Further penetration into the subject of grading must be expected to narrow down the range of adequate topological predicates.

- Ag2 That which is totally in itself is that which does not require anything else other than just itself in order to be.
- Ag4 That which is, must be totally in itself if it cannot be partly in something else.
- Ag6 That which is, is totally and adequately conceived through itself alone, or partly by something else.
- Ag7 That which is totally and adequately conceived through itself is that which is such that its concept does not require any other concepts whatsoever in order to be formed.
- Ag16 That which is, more or less requires other things in order to be, or does not require any such things whatsoever.
- Bg1 Something cannot at all be adequately conceived as nonexistent, or can be so conceived conditionally or in part.

For example: a person *as a whole* is in something else and can be conceived as nonexistent—at any time under any conditions; but when that person adequately “causes something outside or inside himself” (IID2), something inside or outside him can be wholly and totally, that is, adequately, conceived through him. *In this relation he cannot be adequately conceived as nonexistent.*

- Bg11 If something can conditionally or to some extent adequately be conceived as nonexistent, it is to that extent unfree, and vice versa.

GRADING BASIC DISTINCTIONS

- Bg12 If something cannot in any relation be adequately conceived except as existent, it is totally free, and vice versa.
- Cg7 If something is the complete, in all relations, adequate cause of itself, it is completely and clearly understood through itself, and vice versa.
- Cg23 That which is in all relations conceived by itself, is free in all relations.
- Cg32 If a person is totally active in relation to something, he causes it adequately.
- Cg43 A person is to some extent in something else.
- Cg44 A person is not totally in himself.
- Cg45 A person is to some extent conceived through something else.
- Cg46 A person is not completely conceived through himself.
- Cg49 A person is not totally free.

Power

There is an ever-increasing consensus among the commentators on Spinoza that his philosophy should be considered primarily as a dynamic power philosophy. Power (*potentia*) is also at the heart of this theory of affects. The affects of an organism are defined in terms of the transitions in its power relations. These transitions, which consist of increases and decreases in the power of the organism, constitute the basis for the positive and negative sentiments, and for the desires which originate in these sentiments. The transitions may be partial or total, depending on whether they are related to some parts of the person (or organism), but not to the whole person, or to some, but not all of his relations to other persons and to nature in general; or whether they concern the person and his relations as a whole.

(Wetlesen 1969: 117)

These words by Jon Wetlesen are well suited as an introduction to the assimilation of power into our conceptual structure.

From IP11Dem3, IP11Sch, and IVP4Dem we infer that every infinite being is more powerful (*potentiora*) than any finite being. Spinoza expressly

states that it is absurd to hold that finite beings are more powerful than infinite ones.

In Spinoza's terminology, to be able to exist is a form of being positively able to do something. His term *potentia* is clearly very broad, a substantivation of the common Latin verb *posse* ("to do" and "to be able to").

"To have the power to" is not as broad as "to be able to," since to be able to not-to-exist (*posse non existere*) is taken by Spinoza to be a form of powerlessness, not a form of power, in spite of being a form of *posse*. In short, a form of "can" (*posse*) in the broadest sense may sometimes be a form of "inability" (*impotentia*). Spinoza distinguishes several forms of power. His terminology is rich at this point. He uses at least six expressions: "*potentia*," "*potentia agendi*," "*potentia cogitandi*," "*potentia cognoscendi*," "*potentia imaginandi*," and "*potentia intelligendi*." We need an inclusive concept covering all these species and we shall designate it simply by "power" (*potentia*). An increase in power will be said to take place only if there is an increase in at least one form of power, and no decrease in any. Similarly, a decrease will be said to take place if there is a decrease in at least one form, and no increase in any other.

If the power of something, *A*, reaches an absolute maximum, we stipulate that its activity (*potentia agendi*) must be at an absolute maximum. When Spinoza uses the simple terms *potentia* and *potestas*, we take them to be synonymous with *potentia agendi*, if the context does not clearly suggest something different. This means, according to IID2, that *A* cannot but be adequate as a cause, and being supremely active will be an adequate cause of anything whatsoever. We are therefore entitled to equate absolute maximum of power with being *causa sui*. Being *causa sui*, in turn, implies having the rest of the in-itself properties. The fundamental Spinozistic postulate of the immanence of God has as a consequence that such an absolute, all-embracing power cannot *exist* apart. But it can, and must, *be*. "Things," or more generally, anything *existing*, will have a power less than infinite (in all respects imaginable), that is, less than the theoretical maximum. Further, we are entitled to equate an increase in power with an increase in activeness and therefore in adequacy as cause. This links the notion of increase of power with that of increase in level of in-itself, or freedom, and of the other basic in-itself properties.

To the various forms of power there will correspond various forms of the other in-itself properties. A stipulation, however, will be applied to

GRADING BASIC DISTINCTIONS

each case: a change is to be reckoned as an increase in the many-dimensional relations only if there is no decrease in any of the dimensions. There is, for example, only an increase in freedom in general if there is no decrease in any form of freedom. (It would raise too many problems here to ask for a measure that would allow one to compare an increase in one dimension with a decrease in another.)

Suppose a person H at time t_2 conceives something with a higher degree of adequacy than before, at time t_1 . Does this imply that he, in the terminology of Spinoza, conceives it better out of, by means of, or through himself? The situation of H at time t_2 is such that the degree of “conceivability through himself” or “capacity of understanding [*potentia intelligendi*] through himself” is raised. This capacity may be taken to be equivalent in its manifestations to the *joint* capacity of being active and of understanding.

In God, being absolutely in itself, the various capacities are symbolically united in one. In other words, at the theoretical maximum or conceptual level, the capacities are united. Thus, according to IIP7Cor, God’s thinking power (*cogitandi potentia*) is the same as his power of acting (*actuali agendi potentia*). In human beings this unity cannot be achieved. We shall assume, however, a mutual implication between an increase in an individual human being’s ability to conceive particulars A , B , and C and that individual’s active relations toward A , B , and C .

If y is conceived (i.e., capable of being conceived) through x , the question arises, Capable of being conceived by what kind of beings? The primary, but not ultimate answer in the context of the *Ethics* is “human beings.” If, now, x is a human being and therefore y is conceived through x , I assume that x is theoretically capable of conceiving y . We need not go into the relation of capability to actuality here, but it would be awkward to have to assume that if y is conceived through x , and x is a human being, y must continuously be conceived by a human being.

If we say that total freedom is a property of that which is totally in itself, the formulation may be misleading, because it suggests a difference at the extensional level between the totally free and the totally in itself. The totally free *is* the totally in itself, and vice versa. This does not contradict the fact that there are in the system two different *entia rationis* (conceptual constructions), one expressed by “total freedom” and the other by “being

totally in oneself.” Taking into account how Spinoza characterizes the function of *ratio*, we conclude that the *entia rationis* have all the functions to assist in increasing freedom. To do something that is not conducive to this or is neutral in relation to the ultimate goals is not rational.

There is a kind of democracy among the in-itself predicates insofar as any one of them can, if one wishes, be substantivated and any other one can be used as a predicate in relation to the substantive clause. Thus, one may say “The totally self-conceived is totally in itself” or “The totally in itself is totally self-conceived.” The different wordings should not mislead one into postulating various (independent) dimensions of substantiality at the extensional level.

This may bring us to the question of whether two different things could both have the absolute maximum of substantiality. This is the question of whether there is more than one substance. First, there cannot be two substances of different essence or nature. That would imply that we perceive substance as a member of a class. This is ruled out by substance being conceived through itself and not through any class property. Restated, what is conceived through itself and not through a class property *is* substance.

Second, the thought of two different substances with the same essence or nature is absurd since, being separated from each other, they would have to be in something else, as for instance two only numerically different coins are in a box, or two only numerically different thoughts (one “repeated” thought) are in one mind. Since substance is not in something else, the thought of two or more substances is absurd. Since the essence of substance implies existence, there is one and only one substance. Any other conclusion somehow implies a critique of the very notion of “conceived through itself” and the other in-itself and in-something-else terms.

The above argumentation is, I think, in substantial agreement with Spinoza’s trend of reasoning in part I from the beginning to the eighth proposition. Of special importance is the second half of the scholium that refers to IP7 (misnamed IP8Sch2 by Spinoza).

Survey D Using Symbols

It is convenient to attach subscripts to our previously introduced predicate symbols in order to symbolize gradedness. We shall do this, but it must

GRADING BASIC DISTINCTIONS

also be borne in mind that some of the graded properties to be introduced now are, strictly speaking, new properties, not properties previously introduced and now being graded.

The symbolic formulations of chapters 1, 2, and 3 will be retained, and the basic in-itself predicate symbols in those chapters will be used, as already mentioned, to express the absolute maximum of a property. Thus, “being in itself,” as it occurs in chapter 1, is from now on taken to mean “being totally, absolutely in itself” or “being in itself in all relations.”

On the other hand, if we take “being in something else” and view the absolute maximum of this property to mean “being totally, absolutely in something else,” then many theorems of chapter 1 would have to be reformulated. According to our interpretation of Spinoza’s system, no particular thing is totally, absolutely in something else. Particulars are all in God, taken absolutely (*quatenus absolute*), but not totally in God, as modified (*quatenus modificatus*).

We shall therefore take the in-something-else predicate symbols of chapters 1–3 to refer to the simple negation of the in-itself predicates in their absolute sense. Thus, that which is *not* totally in itself will be said to be in something else. To be in something else is thus perfectly consistent with being partly in itself.

Before going into our present subject of symbolization, I have to ask for a substantial amount of tolerance from readers who still do not appreciate the use of symbols in surveying conceptual structures. From now on, the theorems are not listed separately in plain language but are found under each symbolic formulation as a sort of translation. Furthermore, what might perhaps be more irritating, some theorems are offered that say practically nothing: they have some function only within the increasingly complex machinery of derivation of the more important items.

For the general trend of our argument and the interpretations involving grading, it is unnecessary to inspect the paragraph below that begins, “More formally . . .,” or to read the detailed proof of SD6, p. 70. Why, then, burden the exposition with these things? Because for anyone interested in the question of whether the symbolic version can be made logically unobjectionable, these formal details are of some importance. Among theorems SD1 through SD45, at least the following are of more than formal significance: 2, 2a, 15, 15a, 16a, 17, 24a, 33, 34, and 40.

New Symbols:

$d(y)$ y is a degree

Let $d(y)$ mean that y is a degree of such a kind that there are only three different degrees: $y = 0$, $0 < y < \infty$, or $y = \infty$. If y is attached to a predicate symbol, this means that the predicate is valid to degree y . Thus, $L_y(x)$ reads “ x has freedom of degree y .” $L_\infty(x)$ reads “ x is infinitely free” or, rather, “ x is free to the theoretically maximal degree,” which can also be recast as “ x is totally free” or “ x is free in absolutely all relations.” This was expressed by our old symbol $L(x)$ in chapters 1–3, but from now on is written as $L_\infty(x)$.

More formally, we can introduce sets of four abbreviations and one axiom related to each syncategormatic symbol:

$L_0(x)$ Def $(\exists y) (d(y) \ \& \ y = 0 \ \& \ L_y(x))$

$L_{>0}(x)$ Def $(\exists y) (d(y) \ \& \ y > 0 \ \& \ L_y(x))$

$L_{<\infty}(x)$ Def $(\exists y) (d(y) \ \& \ y < \infty \ \& \ L_y(x))$

$L_\infty(x)$ Def $(\exists y) (d(y) \ \& \ y = \infty \ \& \ L_y(x))$

$(y) [(d(y) \ \& \ L_y(x)) \supset \neg(\exists z) (d(z) \ \& \ z \neq y \ \& \ L_z(x))]$

Where “Def” stands for “shall be taken to mean” or “means the same as.” The above set, the L-set, relates to freedom. Exactly analogous sets relate to ES, CS, RE, RC, PCNE, ENPC, and so on, or, in short, to each predicate of the in-itself or ES class of predicates introduced in chapters 1 and 2. Further, there is a set related to power, P. In what follows, we assume the resulting nine axioms and thirty-six abbreviations introduced. We consider the predicates EA and CA to be covered by the negations -ES and -CS.

The three degrees may be interpreted as complete absence, presence at a maximum, and a level in between complete absence and presence at a (theoretical) maximum. Thus:

$ES_y(x)$ x is to extent y , in itself

$EA_y(x)$ x is to extent y , in something else

GRADING BASIC DISTINCTIONS

Giving y particular values, we have:

- $ES_{\infty}(x)$ x is totally, absolutely in itself
 $ES_{>0}(x)$ x does not totally lack being in itself, and so on

Using the interval $(0, \infty)$ instead of $(0, 1)$ has some consequences that should be mentioned. No finite number is greater than any other, compared to ∞ ; thus, we have no justification for saying “N. N. has reached a high level of freedom.” But levels can be compared: “N. N. has now reached a higher level”; no finite number is near ∞ , so we cannot say “N. N. has reached a level near that of God,” but we might say “N. N. has come nearer to the level of God, letting it be understood that nothing more is meant than that he has moved along a line—not away from, but toward—the level of God.” The use of ∞ stresses the “transcendence” of that which is *completely* in itself, that which is *completely* conceived through itself, and so on. There is a lack of continuity between the not complete and the complete corresponding to the discontinuity between a finite and an infinite set of numbers.

If, on the other hand, the interval $(0, 1)$ were to be used—that is, a closed interval—we would, in principle, be able to indicate a finite number, for instance 0.01 as a measure of the distance between the freedom of God and that of a very free man. A human being might be said, without any qualification or comment, to have come near the level of God. This would introduce difficulties in the system. According to Spinoza, it is essential that man cannot be God, that no particular thing can be substance. There is a logical or categorical difference between God and man. God does not even exist—in the same way as man.

Other New Symbols:

- $P(xy)$ x has adequate or inadequate power in relation to y
 $P_g(x)$ x is powerful to the degree “ g ”
 $P_{in}(x)$ x increases its power, partially or totally
 $P_{de}(x)$ x decreases its power, partially or totally
 $ES_{in}(x)$ x increases its level of being in itself
 $D_{in}(xy)$ x is increasingly weighty as cause of y

Survey D

First, we consider grading “being in itself”:

$$\text{SD1} \quad (x) (ES_{>0}(x) \& EA_{<\infty}(x)) \quad \text{from SC54 and IP36}$$

Or, not using the abbreviations:

$$\text{SD1a} \quad (x) (\exists y) (\exists z) [d(y) \& d(z) \& o < y \& z < \infty \& ES_y(x) \& EA_z(x)]$$

The formula SD1 may be read: For all x , it holds that x is in itself to a degree greater than zero and in something else to a degree less than infinite. Or, for all things (that may exist), it holds that they are to a degree smaller than the theoretical maximum in something else. Or, for every particular thing, it holds that it is to some extent in itself and not totally in something else. Or, for every existing thing, it holds that in some, but not in all relations, they are in themselves. The wide margin of readings does not reflect a belief that these differences are completely unimportant, but that differences are not taken into account in the symbolic version. They are not essential to the explication of basic structures of the system.

SD2	$(x) ES_{>0}(x)$	From SD1. “Everything is to some degree in itself.”
SD2a	$H(x) \supset ES_{>0}(x)$	From SD2. “Human beings are to some extent in themselves.”
SD3	$(x) EA_{<\infty}(x)$	From SD1. “Everything is less than completely in something else.”
SD4	$ES(x)$ in chapters 1–3 $\underline{\text{Def}} ES_{\infty}(x)$	“From now on $ES(x)$, as occurring in chapters 1–3, shall be taken to mean the same as $ES_{\infty}(x)$.”
SD5	$EA(x)$ in chapters 1–3 $\underline{\text{Def}} EA_{>0}(x)$	“From now on $EA(x)$, as occurring in chapters 1–3, shall be taken to mean the same as $EA_{>0}(x)$.”

GRADING BASIC DISTINCTIONS

SD6	$\neg ES(x)$ in chapters 1–3 $\sim ES_{<\infty}(x)$	From SD2 and SD4, and the axiom pertaining to ES. (That is, the ES-axiom as part of the ES-set. Cf. pp. 67–68.) “If it is not the case that something, x , is totally in itself, then it is less than totally in itself, and vice versa.”
-----	--	--

Proof of SD6 in detail:

1. $(\exists y): d(y) \ \& \ 0 < y \ \& \ ES_y(x)$ from SD2
2. $d(y_1) \ \& \ 0 < y_1 \ \& \ ES_{y_1}(x)$ from (1)
3. $\neg(\exists y): d(y) \ \& \ y = \infty \ \& \ ES_y(x)$ hypothesis: $\neg ES(x)$
4. $\neg d(y_1) \vee y_1 \neq \infty \vee \neg ES_{y_1}(x)$ from (3)
5. $d(y_1) \ \& \ 0 < y_1 < \infty \ \& \ ES_{y_1}(x)$ from (2), (4), and property of “d”
6. $(\exists y): d(y) \ \& \ y < \infty \ \& \ ES_y(x)$ from (5)
7. $\neg ES_{\infty}(x) \supset ES_{<\infty}(x)$ from (3) and (6)
8. $\neg ES_{<\infty}(x) \supset ES_{\infty}(x)$ from axiom pertaining to ES
9. $\neg ES_{\infty}(x) \sim ES_{<\infty}(x)$ from (7) and (8)
10. $\neg ES(x) \sim ES_{<\infty}(x)$ from (9) and SD4

In what follows, the proofs of each theorem are not spelled out in detail.

SD7	$EA(x) \sim ES_{<\infty}(x)$	From SD6 and SA1. “If something is in something else, it is less than totally in itself, and vice versa.”
SD8	$\neg ES_{\infty}(x) \sim EA_{>0}(x)$	From SD5 and SA1. “If something is not totally in itself, it is to some extent in something else, and vice versa.”

SD9	$\neg EA_{<\infty}(x) \sim EA_{\infty}(x)$	From SD3 and the axiom pertaining to EA. “If something is not less than completely in something else, it is completely in something else, and vice versa.”
SD10	$\neg(\exists x) EA_{\infty}(x)$	From SD3 and SD9. Holds even for the narrower concept of ‘being’ in general, namely ‘existing’. “Nothing is completely in something else.”
SD11	$(\exists x) ES_{\infty}(x)$	Suggested by ID6 and IP11. “There is something that is completely in itself.”
SD11a	$(x)(y): ES_{\infty}(x) \& ES_{\infty}(y) \supset x = y$	Suggested by IP7, IP7Dem, and IP8Sch2. “There is one and only one thing that is completely in itself” or “What is totally in itself is unique.”
SD12	$\neg EA_{>0}(x) \sim EA_0(x)$	From SD3 and the axiom pertaining to EA. “If something is not to any degree in something else, it is not at all in something else, and vice versa.”
SD13	$ES_{\infty}(x) \sim EA_0(x)$	From SD11 and SD12. “If something is totally in itself, it is in no way in something else, and vice versa.”

Grading “Conceived Through Itself”

SD14	$(x)(CS_{>0}(x) \& CA_{<\infty}(x))$	From SD1 and SA13. “All things taken one at a time are to some extent conceived through
------	--------------------------------------	--

GRADING BASIC DISTINCTIONS

themselves and are less than completely conceived through something else.”

Or, without using abbreviations:

SD14a	$(x) (\exists y) (\exists z) [d(y) \& d(z) \& 0 < y \& z < \infty \& CS_y(x) \& CA_z(x)]$	
SD15	$(x) CS_{>0}(x)$	From SD14. “Everything is conceived to some extent through itself.”
SD15a	$H(x) \supset CS_{>0}(x)$	From SD15. “Every human being is to some extent conceived through himself.”
SD16	$(x) CA_{<\infty}(x)$	From SD14. “Everything is less than completely conceived through something else.”
SD16a	$(x) C_{>0}(xx)$	From SD15. “Everything is to some extent conceived through itself.”

This theorem makes explicit that the adequate understanding of something cannot proceed *completely* in terms of something else. A “golden mountain” cannot be conceived *completely* from the two concepts ‘golden’ and ‘mountain’ if a golden mountain *exists* as a particular thing. Similarly, an individual cannot be adequately conceived by reference to social rules “governing” his society and not created by himself. Nor can an individual mouse be adequately conceived solely in terms of the “instincts” of mice in general. The individual differences of mice in a mountain hut are obvious.

SD17	$(x) D_{>0}(xx)$	From SD16a and SC6. “Everything is to some extent its own cause.”
SD18	$CS(x)$ in chapters 1–3 $\underline{\text{Def}} CS_{\infty}(x)$	Suggested by SD4 and SA13. “From now on $CS(x)$ in chapters 1–3 is to mean the same as $CS_{\infty}(x)$.”

SD19	CA(x) in chapters 1–3 Def $CA_{>0}(x)$	Suggested by SD5 and SA14. “From now on CA(x) in chapters 1–3 is to mean the same as $CA_{>0}(x)$.”
SD20	$\neg CS_{\infty}(x) \sim CS_{<\infty}(x)$	From SD15 and SD18, and the axiom pertaining to CS. “If something is not conceived totally through itself, it is conceived less than totally through itself, and vice versa.”
SD21	$CA_{>0}(x) \sim CA_{<\infty}(x)$	From SD20 and SA6. “If something is to some extent conceived through something else, it is nevertheless not conceived in that way in all relations, and vice versa.”
SD22	$\neg CS_{\infty}(x) \sim CA_{>0}(x)$	From SD19 and SA6. “If something is not in all relations conceived through itself, it is in some relations conceived through something else, and vice versa.”
SD23	$\neg CA_{<\infty}(x) \sim CA_{\infty}(x)$	From SD16 and the axiom pertaining to CA. “If something is not less than completely conceived through something else, it is conceived totally through something else, and vice versa.”
SD24	$(\exists x) CS_{\infty}(x)$	Suggested by SD6 and ID3. “There is at least one thing that is completely conceived through itself.”
SD24a	$(x)(y): ES_{\infty}(x) \& CS_{\infty}(y) \supset x = y$	From SA13, SD19, and SD11a. “There is one and only one thing that is completely conceived through itself.”

GRADING BASIC DISTINCTIONS

SD25	$\neg CA_{>0}(x) \sim CS_{\infty}(x)$	From SD22 and the axiom pertaining to CA. “If something is not to some extent conceived through something else, it is totally conceived through itself, and vice versa.”
SD26	$CS_{\infty}(x) \sim CA_0(x)$	From SD25. “To be conceived completely through itself is to be in no way conceived through something else.”

Grading Requirements for “Being” and “Being Conceived”

SD27	$(x)(\exists y)(RE_y(x))$	Suggested by SD3 and SA3. Logically derivable from SD29. “For all things it holds that there is a grade that indicates the extent to which they require something else to exist.”
SD28	$EA_{<\infty}(x) \sim RE_{<\infty}(x)$	Suggested by SA14. “If something is less than totally in something else, it requires in less than all respects something else in order to exist, and vice versa.”
SD29	$(x) RE_{<\infty}(x)$	From SD3 and SD28. “Everything does in less than all respects require something else in order to exist.”
SD30	$\neg RE(x)$ in chapters 1–3 $\stackrel{\text{Def}}{=} RE_0(x)$	“From now on the expression ‘not require anything else to exist,’ as it occurred in chapters 1–3, shall mean the same as ‘ x requires to zero degree something else to exist.’”

SD ₃₁	$RE(x) \sim RE_{>0}(x)$	From SD ₂₉ and SD ₃₀ , and the axiom pertaining to RE. “If something requires something else to be, it requires this to some extent greater than zero, and vice versa.”
SD ₃₂	$\neg RE_{<\infty}(x) \sim RE_{\infty}(x)$	From SD ₂₉ and SD ₃₀ , and the axiom pertaining to RE. “If something does not totally require something else in order to exist, it requires something else in all relations, and vice versa.”
SD ₃₃	$\neg(\exists x) RE_{\infty}(x)$	From SD ₂₉ and SD ₃₁ . “There is nothing that in all relations requires something else in order to exist.”
SD ₃₄	$(\exists x) RE_0(x)$	Suggested by ID ₆ and ID ₃ , second part. From SA ₂ , SD ₃₁ , and SD ₁₁ . “There is something that in no relation whatsoever requires something else in order to exist.”
SD ₃₅	$RE_{<\infty}(x) \sim RC_{<\infty}(x)$	Suggested by SA ₁₈ . “If something does not totally require something else in order to exist, it does not in all relations require other conceptions in order to be conceived, and vice versa.”
SD ₃₆	$(x) RC_{<\infty}(x)$	From SD ₃₅ and SD ₂₉ . “All things, each taken separately, are conceived through some other things in less than all relations.”

GRADING BASIC DISTINCTIONS

SD37	-RC(x) in chapters 1–3 $\underline{\text{Def}} \text{RC}_0(x)$	“In what follows, -RC(x), as it occurs in chapters 1–3, shall mean the same as $\text{RC}_0(x)$.”
SD38	$\text{RC}_0(x) \sim \text{RE}_0(x)$	From SD37, SA18, and SD30. “If something does not at all require the conception of something else in order to be conceived, neither does it require anything else in order to exist, and vice versa.”

Carefully elaborated, these and other theorems may contribute to a highly original life and worldview (*Leben und Weltanschauung*). In contemporary jargon, such worldviews might be labeled biocentric, ecocentric, or cosmocentric: all beings have a series of common properties and urges, and there is some kind of supreme whole.

Grading Other Previously Introduced Predicates

SD39	$\text{L}_{>0}(x) \sim \text{ES}_{>0}(x)$	Suggested by SD17. “If something is free to some extent, it is in itself to some extent, and vice versa.”
SD40	$(x) \text{L}_{>0}(x)$	From SD39 and SD2. “All things are to some extent free.”
SD40a	$\text{H}(x) \supset \text{L}_{>0}(x)$	From SD40. “Every human being is to some extent free.”
SD41	$\neg(x) \text{L}_{<\infty}(x)$	From SD11 and SB19. “Not everything is less than completely free.”
SD42	$\text{L}(x)$ in chapters 2 and 3 $\underline{\text{Def}} \text{L}_{\infty}(x)$	Suggested by SD4 and SB14. “From now on $\text{L}(x)$, as it occurs in chapters 2 and 3, shall be taken to mean the same as $\text{L}_{\infty}(x)$.”

SD43	$(\exists x) L_{\infty}(x)$	From SD17, SD24, and SB16. “There is something that is completely free.”
SD43a	$(x) (y): L_{\infty}(x) \& L_{\infty}(y) \supset x = y$	From SB14, SD42, and SD11a. “There is one and only one thing that is totally free (Spinoza’s God).”
SD43b	$ES_{\infty}(a) \& CS_{\infty}(b) \& L_{\infty}(c) \supset a = b = c$	“If a thing a is totally in itself, a thing b is conceived totally through itself, and a thing c is totally free, then a , b , and c are the same thing.”
SD44	$PCNE_{<\infty}(x) \sim EA_{<\infty}(x)$	Suggested by SA3 and SB6. “If something in less than all relations can be conceived as non-existent, it is in less than all relations in something else, and vice versa.”
SD45	$ENPC_{>0}(x) \sim L_{>0}(x)$	Suggested by SD2 and SB10. “If something in at least some relations cannot be conceived except as existent, it is to that extent free, and vice versa.”
SD45a	$H(x) \supset ENPC_{>0}(x)$	From SD40a and SD45. “Every human being is such that in at least some relations he cannot be conceived except as existent.”

Power Relations

SD46	$P_{<\infty}(x) \sim PCNE(x)$	Suggested by ID1 and IP11Dem3. “If something is less than infinitely powerful, it can be conceived as nonexistent, and vice versa.”
------	-------------------------------	--

GRADING BASIC DISTINCTIONS

SD47	$P_{<\infty}(x) \sim EA_{<\infty}(x)$	From SD46 and SB6. Suggested by IP11Dem3. “If something has less than adequate power in all relations, it is (to some extent) in something else, and vice versa.”
SD48	$P_{\infty}(x) \sim ES_{\infty}(x)$	Suggested by IP11Sch. From the definition of $d(x)$ and the axiom pertaining to P and SA1. “If something has adequate power in all relations, it is (completely) in itself, and vice versa.”
SD49	$P_{\infty}(x) \sim CS_{\infty}(x)$	From SD48 and SA13. “If something has adequate power in all relations, it can be adequately conceived through itself in all relations, and vice versa.”
SD50	$P_{\infty}(x) \sim AdD(xx)$	From SD48 and SC17. “If something has adequate power in all relations, it is its own adequate cause in all relations, and vice versa.”
SD51	$P_{<\infty}(x) \sim InD(xx)$	From SD46 and SC27. “If something is less than infinitely powerful, it can only be an inadequate cause of itself.”

The power terminology may be used without grading.

SD52	$(y) P(xy) \sim ES_{\infty}(x)$	From SD48. “If something is powerful in relation to all things, then it is totally in itself, and vice versa.”
------	---------------------------------	---

SD53	$(\exists y) P(xy) \& (\exists z) \neg P(xz) \sim EA_{>0}(x)$	From SD47. “If something is powerful in relation to at least one thing, and not powerful in relation to at least one thing, then this something is to some extent in something else.”
SD54	$P_{in}(x) \sim ES_{in}(x)$	Suggested by SD47 and SD48. “An increase in power mutually implies an increase in the level of being in oneself.”
SD55	$P(xy) \sim L(xy)$	“If something is powerful in relation to something, it is free in that relation.”
SD56	$\neg(\exists x): H(x) \& ES_{\infty}(x)$	From SC44. “There is no human being that is completely in himself.”
SD57	$\neg(\exists x)(y): H(x) \& P_{\infty}(xy)$	From SD56 and SD48. “There is no human being with adequate power in every relation.”
SD58	$(x)(\exists y): H(x) \supset P_{<\infty}(xy)$	From SD46 and SC43. “Every human being lacks adequate power in at least one relation.”
SD59	$P_0(x) \sim EA_{\infty}(x)$	Suggested by IIID1 and IIID2. “To be completely powerless is to be completely in something else.”
SD60	$\neg(\exists x) P_0(x)$	From SD59 and SD10. “Nothing is utterly powerless.”
SD61	$(\exists x) P_{\infty}(x)$	From SD11 and SD48. “At least one thing is infinitely powerful.”

GRADING BASIC DISTINCTIONS

SD62	$P(xy) \sim G(xy)$	Suggested by IIID2 and IVP37Sch1. “If something has adequate power in relation to something else, it is adequately active in this relation, and vice versa.”
SD63	$AdP(xy) \sim AdD(xy)$	Suggested by IIID1, IIID2, and IVPSch1. From SD62 and SC34. “If something has full power in relation to something else, it causes this latter thing adequately, and vice versa.”
SD64	$AdP(xy) \sim AdC(xy)$	From SD62 and SC36. “If something is adequately powerful in relation to something, the latter is conceived adequately through the former, and vice versa.”
SD65	$P_{in}(x) \sim G_{in}(x)$	Suggested by IIID2 and IIID3. “An increase in level of power mutually implies an increase in activeness (level of activity).”
SD66	$P_{in}(x) \sim ES_{in}(x)$	Suggested by SD48. “An increase in level of power mutually implies an increase in level of being in itself.”
SD67	$P_{in}(x) \sim EA_{de}(x)$	Suggested by SD66. “An increase in level of power mutually implies a decrease in level of being in something else.”
SD68	$P_{in}(x) \sim L_{in}(x)$	Suggested by SD66 and SB14. “An increase in level of power implies an increase in level of freedom, and vice versa.”

SD69	$\text{InP}_{\text{in}}(x) \text{Def} (\exists y) \text{P}_{\text{in}}(xy) \\ \& (\exists z) \neg \text{P}_{\text{in}}(xz) \\ \& \neg (\exists t) \text{P}_{\text{de}}(xt)$	<p>“The symbol $\text{InP}_{\text{in}}(x)$, ‘$x$ increases its power, but only in part,’ shall stand for ‘There is at least one relation in which x increases its power, and at least one in which x does not increase its power, but there is no relation in which x decreases its power.’”</p>
SD70	$\text{InP}_{\text{de}}(x) \text{Def} (\exists y) \text{P}_{\text{de}}(xy) \\ \& (\exists z) \neg \text{P}_{\text{de}}(xz) \\ \& \neg (\exists t) \text{P}_{\text{in}}(xt)$	<p>“The symbol $\text{InP}_{\text{de}}(x)$, ‘$x$ decreases its power, but only partially,’ shall stand for ‘There is at least one relation in which x decreases its power, and at least one relation in which x does not decrease its power, but there is no relation in which x increases its power.’”</p>

Similar symbols may be introduced in relation to some previous predicates:

SD71	$\text{InES}_{\text{in}}(x) \text{Def} (\exists y) \text{ES}_{\text{in}}(xy) \& (\exists z) \neg \text{ES}_{\text{in}}(xz) \& \neg (\exists t) \text{ES}_{\text{de}}(xt)$
SD72	$\text{InG}_{\text{in}}(x) \text{Def} (\exists y) \text{G}_{\text{in}}(xy) \& (\exists z) \neg \text{G}_{\text{in}}(xz) \& \neg (\exists t) \text{G}_{\text{de}}(xt)$
SD73	$\text{InL}_{\text{in}}(x) \text{Def} (\exists y) \text{L}_{\text{in}}(xy) \& (\exists z) \neg \text{L}_{\text{in}}(xz) \& \neg (\exists t) \text{L}_{\text{de}}(xt)$

It may be argued that $\text{InP}_{\text{in}}(ab)$ as an instance of $\text{InP}_{\text{in}}(xy)$ does not make sense because the relation of a to b is *one* relation, and its power is either increased or decreased in this relation. We shall, however, sometimes suppose that a has many relations to b , and that a may be increasing by being active in some but not in all relations. The time dynamic is important in this regard.

These definitions facilitate our transition from Spinoza’s power philosophy to his philosophy of emotions. The above facilitates an understanding of how Spinoza’s philosophy of power differs from Thomas Hobbes’s; Spinoza’s philosophy of emotion does the same thing.

V

The Road to Freedom Through Active Emotion

Introduction

There are many kinds of power according to Spinoza. There are also many kinds of joy. Considering the internal relation between joy and perfection, there must also be many kinds of perfection.

Perhaps the increase of a particular power at least sometimes leaves intact or even reduces the general (total) power of an individual. The purely or unmixed active emotions, the emotions of which there cannot be too much, necessarily increase the general power of an individual. This offers us a connecting link between active emotion and previous notions. We have already introduced the notion of increasing and decreasing power. Emotion is something through which power increases or decreases. The relation is such that whenever power of some kind or other increases or decreases, there is necessarily emotion. The intimacy of the relation limits the validity of the phrase “emotion is something by *means of which* the power increases or decreases.” Whenever all-embracing general or total power increases there is unmixed active emotion, and whenever there is unmixed active emotion there is an increase in total power. We may think of dwelling in a situation we find perfect—nothing we might hope for is left out. The body and soul, the whole personality, are engaged in the situation or the process or in something that is both a situation and a process. On the other hand, total power may be left intact in the case of contrary emotions, that is, when one kind of power increases and another decreases.

An emotion may be strong or weak, persistent or short-lived. We shall suppose that an increase in total power is proportionate to the joint effect of duration and intensity of active emotion. Thus, the more intense and durable the active emotion, the greater the forward leap in power. Now, an increase in power is, according to SD63, an increase in freedom. *The road to freedom is*

therefore the road to activation of emotion. The more active, intense, and persistent the emotions, the more rapid are the transitions to higher levels of human freedom. Lack of emotion, whether active or passive, implies a standstill in the level of freedom. As we start at low levels, lack of emotion arrests development. If the Greek *ataraxia* is interpreted to be an emotionless state, Spinoza spurns *ataraxia*. He does not favor moderation of emotion if this implies an upper limit of intensity or duration. There is no limit to the intensity or duration of *amor intellectualis Dei*, one of the most prominent Spinozistic emotions. The many authors who consider Spinoza a sort of Stoic or who otherwise class him together with wise men in favor of general limitation of the intensity of affects, have been misled. It must be admitted that Spinoza often uses *passio* and *affectus* as synonyms for passive emotions, for emotions that do not go together with increase in power and freedom. His terminology must be considered to be vacillating and open to misinterpretation at this point. But this does not invalidate our conclusion. Active love and joy are emotions.

Making use of the basic equivalences, one may state a series of propositions: increased intensity of active emotion results in increased (1) freedom, (2) level of being in oneself, (3) extent to which one is an adequate cause of one's actions, and (4) understanding of oneself.

After the definition of emotion or "affect" (IIID3), Spinoza writes that when we can be an adequate cause of an affect, the affect is itself an "action" (in the wide sense used by Spinoza); if we cannot be an adequate cause, the affect is a "passion." In what follows, I shall distinguish completely active emotions from those that are not completely active. In the first case we are an adequate cause; in the latter, only an inadequate cause.

Spinoza does not believe in any free will. The will of a free man is not free. We do not need a free *will* in order to be free. It is enough that the person as a whole is free—never mind isolated faculties or components of a person such as will. The will is subordinate to the person as a whole.

Humans do not deliberately choose the road to freedom and reject the road to slavery. Such a primordial choice is not necessary because there is a tendency, a certain striving, *conatus*, inherent in all noneternal, finite—that is, limited—things and therefore in every human being.

An aspect of this general *conatus* is the so-called self-preservation or, better, self-perseveration—the striving to remain in one's own being (*in suo esse perseverare*, IIP6). It is a striving toward *consolidation of a being as far as it*

is in itself. It is a tendency to withstand threats to the level already reached of being in itself.

In addition to this, or as an aspect of it, there is a no less fundamental striving to increase the extent of being in itself. This striving increases in force proportionally to the level reached (in other words there is an exponential increase). Humans, and every other living being, have this latter striving. In humans it expresses itself as a desire for clearer and more comprehensive understanding (*intelligere*). The “law of exponential increase” is common to all, but the level at any age may differ considerably from person to person. According to part V of the *Ethics*, the deeper a person is involved in “understanding of the third kind,” the more strongly he desires to have more of it, and the more capable he is of reaching what he desires.

Evidence supporting the above general interpretation is furnished mainly by IIP6, IIP7, IIP9, IIP9Sch, VP25, and VP26. I leave it as an open question whether Spinoza would apply the term *understand* to all living beings. Perhaps *conceiving*, as a weaker and more general term, should be used in the case of nonhumans.

Our human striving toward being in ourselves is, if our basic equivalences hold, also a striving for being conceivable through ourselves, that is, completely and clearly understandable *for* and *from* ourselves. On the other hand, the striving is also one of avoiding being passive in relation to other things, or being acted upon rather than taking the initiative.

The principle of self-preservation is formulated by Spinoza in such a way that it seems that its function is merely to preserve a level of in-itself, which is already reached. The principle is used, however, in a way that implies a striving toward *increased* freedom, power, and perfection. The *conatus* is preserved, not a definite stage of development. There are various ways of reformulation that can bridge the gulf between the uninspiring status quo formulation of IIP7 and the requirement of his system as a whole. One way is to postulate that the self alluded to in IIP6 and IIP7 comprises basically a striving toward higher levels, and that therefore a preservation of the self includes the preservation of the striving toward higher levels. This preservation will then not be one of conservation of a measured level, but of the positive derivative of a function like $f(x) = x^2$.

The development of personality consists of, or at least involves, a gradual integration of imperfectly related emotions of which Spinoza recognizes more than eighty classes. To those classes of emotions correspond sets of

powers and sets of fields of action and cognition. The progress toward freedom depends on the “feedback” from different dispositions for emotion, through cognition—an emotion that represses an active emotion will itself be repressed, and emotion that enhances an active emotion will be enhanced. The “victorious” emotion will be such that it represses none of the active emotions and enhances some or all. Here we meet *hilaritas*, and taking the object-relation into the picture, the *amor intellectualis Dei*.

The above account of the consolidation of the person through increasing the level of “being in oneself” may be used to formulate a theory of personal identity that is consistent with David Hume’s discussions of absolute identity as well as other criticisms and contemporary discussions of “loss of personal identity.” The outcome of such an attempt is uncertain, but I see no genuine obstacles in spite of the not uncommon, Hegel-inspired view that Spinoza lets the individual person disappear in substance or God. If any disappearing is involved, however, it is rather the disappearance of God as a substance in the particular beings.

A remark may be relevant here concerning description and construction. Spinoza has written very little compared to the extent of the problems he covers. It is therefore natural when we ask, What has Spinoza said about this? that the answer is frequently “very little” or “nothing.” Considering also the formidable range of diversity of well-documented interpretations of his text, it is doubtful whether one can pin down his views on anything at all using words and expressions clearly understandable in this age. What we can do as philosophers, however, is to work out reconstructions, as opposed to mere “descriptions” of his views. We can work out comprehensive views that are not only inspired by Spinoza’s text but are also not clearly incompatible with the text.

Having this outlook, it is difficult to see how I could ever report as Ruth L. Saw (1969: 4) does about some of her investigations:

A long-treasured and wishfulfilling belief of mine has finally disappeared—the belief that Spinoza was promising us an account from which we might draw Peter in all his particularity as the object of our highest knowledge.

From a narrow historical point of view there is nothing definite in Spinoza’s text that militates *against* the belief that “disappeared,” nor is there anything definite to support this “disappearance” directly and clearly. A re-

construction may be worked out “in Spinoza’s spirit” that would contain theorems from which we can infer that Peter in his particularity is a proper object of the third kind of knowledge. Is this not enough?

In the following survey, I plot out an easy way to test the consequences of our interpretation of the doctrine of essential striving. Plotting out the theorems, I presuppose an interpretation of emotion and its relation to different kinds of cognition that is argued in detail in *Conation and Cognition* (Naess and Wetlesen 1967). The interpretation of IIID₃ stated in *Conation and Cognition* is the basis for the first theorem.

Survey E Using Symbols

New Symbols:

$F(x)$	x is in the state of emotion (<i>affectus</i>)
$AdF(x)$	x is in the state of active emotion
$InF(x)$	x is in the state of passive emotion; x is in a state of passion
$\dots O(x)$	x strives to increase its level of \dots
$\dots NO(x)$	x strives against an increase in its level of \dots x strives to reduce its level of \dots
$ESO(x)$	x strives to increase its level of being in itself
$EANO(x)$	x strives against an increase in its level of being in something else

Survey E

States of Emotion

SEI	$F(x) \sim P_{in}(x) \vee P_{de}(x) \vee InP_{in}(x) \vee InP_{de}(x)$	Suggested by IIID ₃ . “If x is in a state of emotion, x increases or decreases its power in all or some relations, and vice versa.”
-----	--	---

THE ROAD TO FREEDOM THROUGH ACTIVE EMOTION

From the definition of $P_{in}(x)$, it follows that we may simplify SE1:

$$SE_{1a} \quad F(x) \sim P_{in}(x) \vee P_{de}(x)$$

In other words, we shall take “state of emotion” to be a state of change in power, and we shall take a state of power change to be a state of emotion.

SE2	$\neg F(x) \sim \neg P_{in}(x) \& \neg P_{de}(x)$	From SE1. “If something is not in a state of emotion, it neither increases nor decreases, totally or partially, its power, and vice versa.”
SE3	$P_{in}(x) \supset F(x)$	Follows from SE1. “To increase one’s power implies to be in a state of emotion.” “Without emotion, there is no increase in power. Emotion is a necessary but not sufficient condition for increasing power.”
SE4	$AdF(x) \sim P_{in}(x)$	Suggested by IID3. “Being in a state of active emotion mutually implies increasing one’s power.”
SE5	$AdF(x) \supset G(x)$	From IID3. “If something is in a state of active emotion, it is active.”
SE6	$(y) AdF(xy) \sim (y) P_{in}(xy)$	From SE1 and SE4. “If something is in completely active emotion toward all things, it increases its power in all relations.”

To increase in power, $P_{in}(x)$, need not be the same as to increase in every relation, $(y) P_{in}(xy)$. If x has a small decrease in one relation and a great increase in all others, x will have an increase in total power, but not in every relation. Thus, $(y) P_{in}(xy)$ implies $P_{in}(x)$, but not vice versa.

SE 7	$F(x) \sim \text{AdF}(x) \vee \text{InF}(x)$	Suggested by IIID ₃ . “If something is in a state of emotion, it is either in a state of fully active emotion or in a state of more or less passive emotion.”
SE8	$\text{InF}(x) \sim \text{P}_{\text{de}}(x) \vee \text{InP}_{\text{de}}(x) \vee \text{InP}_{\text{in}}(x)$	From SE ₁ , SE ₄ , and SD ₇₀ . “If something is in a (more or less) passive emotional state, it is either decreasing its power, totally or partially, or only increasing it partially, and vice versa.”
SE9	$\text{InF}(xy) \sim (y) \text{P}_{\text{de}}(xy) \vee (\exists z) \text{P}_{\text{de}}(xz) \& (\exists t) \neg \text{P}_{\text{de}}(xt) \& \neg (\exists t) \text{P}_{\text{in}}(xt) \vee (\exists u) \text{P}_{\text{in}}(xu) \& (\exists v) \neg \text{P}_{\text{in}}(xv) \& \neg (\exists w) \text{P}_{\text{de}}(xw)$	“To be in a state of passive emotion is mutually equivalent to a total decrease in power, or to undergo a partial decrease and no increase, or to undergo a partial increase and no decrease in power.”
<p>If there is a partial increase of power in one relation and a partial decrease in another, the total state of emotion will be considered to be complex and to be constituted by two emotions. This is a consequence of definitions SD₆₄ through SD₆₇.</p> <p>A woman might decrease “just a little” in power in relation to her husband but increase “considerably” in relation to her children. She would still be in a state of passive emotion according to the definitions. This shows the limited value of the definitions. For the sake of simplicity, we do not take into account quantitative changes in power.</p>		
SE ₁₀	$\text{AdF}(x) \sim \text{ES}_{\text{in}}(x)$	Follows logically from SE ₄ and SD ₆₆ . “If something is in a state of active emotion, it is increasing its level of being in itself, and vice versa.”

THE ROAD TO FREEDOM THROUGH ACTIVE EMOTION

SE₁₁ $P(x) \supset \neg F(x)$ From SE₁.
 “If something is infinitely powerful, it is not in an emotional state.”

This rules out God and substance being emotional—which would have been an awkward consequence of our reconstruction!

SE₁₂ $AdF(x) \sim AdD_{in}(x)$ Follows logically from SE₁₀ and SC₁₄.
 “If something is in a state of fully active emotion, it increases totally its level of adequateness as a cause, and vice versa.”

SE₁₃ $AdF(x) \sim G_{in}(x)$ Follows logically from SE₄ and SD₅.
 “To be in a state of fully active emotion is to increase one’s general level of activity.”

SE₁₄ $AdF(x) \sim L_{in}(x)$ Follows logically from SE₁₀ and SB₁₄.
 “To be in a state of fully active emotion is to increase one’s general level of freedom.”

SE₁₅ $AdF_{in}(xy) \sim L_{in}(xy)$ From SE₁₄.
 “If one increases one’s level of active emotion in relation to something, one increases one’s level of freedom in relation to this something, and vice versa.”

SE₁₆ $L_{in}(x) \supset F(x)$ Follows from SE₃ and SD₆₈.
 “To increase one’s freedom implies to be in a state of emotion.”

Without emotion there is no increase in freedom. Emotion is a necessary but not sufficient condition for increasing freedom. The importance of this for educational institutions is formidable: Do they do their utmost to

inspire active emotions and steady increases of such emotions? Are, for instance, the ways in which mathematics and history organized conducive to elicit and maintain positive emotions?

Basic Human Striving

SE17	$(x): H(x) \supset ESO(x)$	Suggested by IIIP7Dem. “For all x it holds that if x is a human being, x strives to increase his level of being in himself.”
SE18	$(x): H(x) \supset EANO(x)$	Suggested by SE17 and SA1. “All human beings strive to decrease their level of being in something else.”
SE19	$(x): H(x) \supset -RENO(x)$	From SE17 and SA12. “All human beings strive to reduce the extent to which they require something else in order to exist.”
SE20	$(x): H(x) \supset CSO(x)$	From SE17 and SA13. “Every human being strives to conceive more through himself.”
SE21	$(x): H(x) \supset CANO(x)$	From SE17 and SA6. “All human beings strive to reduce the extent to which they are conceived through something other than themselves.”
SE22	$(x): H(x) \supset -RCO(x)$	From SE17 and SA6. “Every human strives to be such that he requires fewer things to conceive in order to conceive himself.”
SE23	$(x): H(x) \supset PCNENO(x)$	From SE18 and SB6. “All humans strive to reduce the conditions under which they can be conceived as nonexistent.”

THE ROAD TO FREEDOM THROUGH ACTIVE EMOTION

SE24	$(x): H(x) \supset LO(x)$	From SE17 and SB14. “All humans strive to be more free.”
SE25	$(x): H(x) \supset CO(x)$	From SE17 and SC15. “All humans strive to improve their understanding.”
SE26	$(x): H(x) \supset PO(x)$	From SE17 and SD48. “Every human strives to increase his power.”

All these strivings are conceptually different. The connotations of the terms differ. According to our basic interpretation of the fundamental equivalences (of the *in se* class), however, the denotations or extensions are identical. We may give general striving the name of “self-realization” (or self-preservation or self-perseveration), but this may not help our reconstruction of Spinoza’s system. Similarly, it does not help to identify general striving with *conatus*.

General Striving

Spinoza concentrates his attention on the striving of men, but acknowledges a general striving of *all* particular things. The striving for self-preservation (IIIP6, IIIP7, and so on) is the best known. For reasons given later, such striving cannot be separated from the strivings mentioned in the foregoing. We may therefore tentatively write in complete generality:

SE27	$(x) ESO(x)$	“All particular beings strive to increase their level of being in themselves.”
SE28	$(x) PO(x)$	“All particular beings strive to increase their power.”
SE29	$(x) LO(x)$	“All particular beings strive to increase their level of freedom.”

An attempt to generalize SE20, SE21, and SE25 leads to difficulties. Spinoza is generally regarded as favoring animism (of some kind), and an

extension of his notion of ‘conceiving’ to cover all particulars is not out of place. But, thus extended, it presumably would not have much in common with the notion of ‘conceiving’ as applied to humans. We leave the subject, noting an unsolved structural difficulty. In SE27 through SE29, I use the term *beings* instead of *things*, which would be the closest translation of Spinoza’s term *res*. I personally would like to restrict the use of *beings* to living beings, interpreting “living” in a more or less wide way.

VI

Joy

Under this chapter I have arranged the discussion of a fairly large number of phenomena: joy, sorrow, cheerfulness, pleasurable excitement, melancholy, pain, self-preservation, self-realization, and alienation. The title of the chapter is motivated by the unique place of various forms of joyousness in Spinoza's philosophy.

The mind undergoes considerable changes (*magnus mutationes*) according to Spinoza. It moves to a higher or lower state of perfection (IIIP₁₁Sch) and it increases or decreases in power. The changes reveal the nature of the basic affects joy and sorrow (. . . *explicant affectus laetitia et tristitia*). In the definitions IIIAffD₂ and IIIAffD₃ the term *perfectio* occurs. In this section we eliminate it in favor of *potentia*, using the equivalence of the two terms suggested at the end of IIIAffD₃E.

Introducing the term *joy* (*laetitia*) we shall use the opening sentence of IVP₄₁Dem: "Joy (IIIP₁₁ and IIIP₁₁Sch) is the emotion through which the power of the body to act, increases or is furthered." It is not *only* the body that profits through joy, which would be profoundly un-Spinozistic. According to IIIP₁₁, that which tends to increase the body's power to act tends to increase our power to cogitate (think). And in IIIP₁₁Sch, joy is defined as the passion through which the *mind* becomes more perfect.

Survey F Using Symbols

Joy

On the basis of this we introduce the following:

SFI	$\text{Lae}(x) \sim P_{\text{in}}(x)$	Suggested by IVP ₄₁ Dem and IIIP ₁₁ .
-----	---------------------------------------	--

JOY

		<p>“If there is joy there is an increase in power, and vice versa.”</p> <p>“To be in joy is to (be in affect and) increase one’s power, and vice versa.”</p>
SF1a	$Lae(x) \sim (\exists y) P_{in}(xy)$	<p>From SF1.</p> <p>“When a being is in joy, it increases in power in at least one relation, and vice versa.”</p>
SF2	$(\exists y) P_{in}(y) \supset Lae(x)$	<p>“To increase in power, in part or totally, implies to be in joy.”</p>

All increases in power are joyful. We leave it undetermined which class of x ’s this holds for. It holds at least for human beings. Considering Spinoza’s animistic tendency, the class may be rather large, covering at least living beings.

SF3	$Lae(x) \sim ES_{in}(x) \vee InES_{in}(x)$	<p>From SD61, SD67, and SF1.</p> <p>“To be in joy is to increase one’s being in oneself, partially or totally.”</p>
SF4	$Lae(x) \sim (\exists y) L_{in}(xy)$	<p>From SD63, SD67, and SF1.</p> <p>“To be in joy is to become freer, in some or all respects.”</p>
SF5	$L_{in}(x) \supset Lae(x)$	<p>“To increase in freedom implies to be joyous.”</p> <p>Joy is a necessary condition of advancement in freedom.</p>
SF5a	$(x): H(x) \supset LaeO(x)$	<p>From SE26 and SF1.</p> <p>“Every human being strives to be joyous.”</p>

The striving to be joyous is but one aspect of the universal striving (*conatus*). If I strive to realize something, A , and there is an internal relation between A and other things, B , C , and D , it may so happen that I do not

strive to get *B* or *C* or *D*. But as symbolized, I am said also to strive for *B*, *C*, and *D* if there is a mutual implication relation between all four. Spinoza's thinking at this point favors a nonintentional term, *striving*. We may consciously say to ourselves that we strive for *A* and not *B*, but if *A* and *B* are internally related, what happens is that we are urged toward both *A* and *B*. It makes no difference whether we consciously set out to seek *A* or *B*.

The matter stands differently, of course, if there is only an *external* relation between *A* and *B*. I strive for a castle (*A*), but in all probability it ruins me (*B*). I do not strive to be ruined and I hope, by miraculous luck, to avoid ruin. No incoherence is manifest here because the two states, having a castle and being ruined, are not internally connected. In the case of joy and increase in power, or joy and increase in self-causedness, the realization of the one without the others is not possible according to Spinoza, even though we might believe we can imagine them separated. The connection between joy, sorrow, and changes in power or perfection results, if our reconstructions are not wholly misleading, in a synthesis of ontological, epistemological, and psychological components in the conception of the human situation.

The foregoing reconstructions, taken as a whole, reveal the basic relations between increases in substantiality (*in se* status), understanding, and intensification of active emotion. They also reveal the optimism in Spinoza's view of the human predicament—a view that I think is essentially correct and true. Joy and integrity, not anxiety and stress, are central in his vision. Circumstances, however, may be such that a human being lives a life of next-to-utter powerlessness, filled with hatred and frustration.

Perfection

In his survey of emotions, Spinoza defines joy as “man's transition from a lower to a higher perfection.” Accordingly, we state the following mutual implication, naming perfection “Per”:

SF6	$\text{Lae}(x) \sim \text{Per}_{\text{in}}(x)$	Based on IIIAff D2. “If you are joyous you increase in perfection, and if you increase in perfection, you are joyous.”
-----	--	---

JOY

This is a rather unusual and radical view. It seems that it implies an astonishing corollary: he who thinks he increases his perfection painfully or in an indifferent mood suffers from an illusion or grave error.

The joy theorems are apt to elicit questions such as the following: How does it feel to be in a state of *laetitia*? How does it manifest itself? Is it something like a disposition rather than a “raw feeling” or a “sensation”? Perhaps one may not be clearly conscious of *laetitia*. Alternatively, one may be conscious of it only when looking backward, as when we say, “At *that* time I felt happy and was really happy, but perhaps I did not understand it.” Concentrating on questions of structure, I shall not take up these questions at any length. There is, however, no indication in the *Ethics* that Spinoza would class a raw feeling or sensation as anything but an *ens rationis*, a construct resulting from—or, rather, useful in—analysis. In this he would only continue an old tradition starting with Democritus. The large cluster of equivalences involving joy can be incorporated in a materialistic Gestalt psychology, not in a psychology of atomic association.

The internal relation of *laetitia* to *perfectio* is less astonishing when we take into consideration that *perfectio* does not express an absolute such as the English term *perfection* tends to do. The verb *perficere* means to complete, carry through, or make into a whole.

Through SF6 we may place perfection in relation to terms introduced previously:

SF7	$\text{Per}_{\text{in}}(x) \sim \text{P}_{\text{in}}(x)$	From SF1 and SF6. “To increase in perfection is to increase in power” or, more precisely, “Increase in perfection and increase in power mutually imply each other.”
SF8	$\text{Per}_{\text{in}}(x) \sim \text{G}_{\text{in}}(x)$	Suggested by VP40. “An increase in perfection implies an increase in activeness, and vice versa.” What Spinoza says is that the more perfect a thing is, the more active it is, and vice versa.

From these theorems it is clear that *perfection* is a broad term. Its increase may increase perfection only in some aspects or relations. There may be increases that do not favor long-term further increases because of the narrowness or one-sidedness of the kind of perfection. We obtain perfections pertaining to all or to only some relations or situations corresponding to the triad joy, *hilaritas*, and pleasurable excitement.

SF9	$\text{Lae}(x) \sim (y) \text{Per}_{\text{in}}(xy) \vee \text{InPer}_{\text{in}}(xy)$	From SF6 and SF7, and definitions. “To be in joy is to increase, partially or in all respects, in perfection, and vice versa.”
SF10	$(y) \text{Per}_{\text{in}}(xy) \sim (y) \text{P}_{\text{in}}(xy)$	From SF7. “To increase in perfection in all relations is to increase one’s power in all relations, and vice versa.”
SF11	$\text{InPer}_{\text{in}}(xy) \sim \text{InP}_{\text{in}}(x)$	From SF7. “Partial increase in perfection mutually implies partial increase in power.”
SF12	$(y) \text{Per}_{\text{in}}(xy) \sim (y) \text{ES}_{\text{in}}(xy)$	From SD61 and SF10. “Total increase in perfection mutually implies total increase in level of being in oneself.”
SF12a	$\text{Per}_{\text{in}}(x) \sim \text{ES}_{\text{in}}(x)$	From SF11, SF12, and SD66. “An increase in perfection mutually implies an increase in being in oneself.”
SF13	$\text{Per}(x) \sim \text{ES}(x)$	From SF10 and SF12. “The infinite level of perfection is the infinite level of being in oneself, and vice versa.” “If something has absolute perfection, it is absolutely in itself, and vice versa.”

JOY

Strictly speaking, the following postulate is here and in analogous cases presumed valid: if an increase in level of x is equivalent to an increase in level of y , then the zero and infinite levels of x are equivalent to the zero and infinite levels of y .

It turns out that the term *complete perfection* behaves as the many *in se* or substance terms of our chapters 1 and 2. Thus:

SF14	(y) Per(xy) ~ L (x)	From SF13 and SB14. “Complete perfection is complete freedom and complete freedom is complete perfection.”
------	---------------------	---

We write L (x), not L(x) as in chapters 2 and 3, following the convention stated in SD42.

SF15	-($\exists x$) Per _o (x)	From SF7, SF10, SF11, and SD60. “There is no being without some perfection.”
------	---------------------------------------	---

Every being is an expression of God and has an essence. It may be a very modest being but not wholly conceivable through something else. We have a series of “Nothing is vanishing” theorems. No thing has: zero level in itself; zero status as cause; zero level of freedom, power, perfection; and so on. From SF7, SF10, and SF11 one may infer the equivalence of power and perfection. This makes it justifiable to maintain that “everything has perfection” corresponds to “everything has power.” The formulation “everything is perfect” would be misleading!

In the introduction to part IV of the *Ethics*, Spinoza undermines the other-directedness of perfection measured by standards unrelated to the purpose of individual beings in their particular strivings. He also effectively undermines the classical and medieval notion of a *scala naturae*, a “ladder of life,” or universal hierarchy, with man at the top. Levels of perfection are measured in relation to the strivings of *each* thing; there is no general measure such that man might be termed more perfect than an amoeba or a tree. If taken seriously, this Spinozistic view has profound consequences in many fields, including pedagogics.

SF16	$(x): H(x) \supset \text{Per}(x)$	From E17. “All human beings strive to increase their level of perfection.”
------	-----------------------------------	---

Spinoza would probably be willing to extend his theorems to a very large class of beings apart from humans.

Self-Preservation

With the ten theorems on striving, SE12 through SE21, and SF16, we cover so much *conatus* that it is difficult to see in the famous “striving (endeavor) to self-preservation” much that is new. Taken in its crudest form, the endeavor to continue to live—that is, somehow to survive—is of little systematic interest. And taken to imply a resistance to change, a striving to keep on just as one always has done, is clearly un-Spinozistic. The dynamic, interactionist view of the self makes it inevitable to interpret the principle as a striving for power, activeness, and self-causingness. This is more than the minimum undertaking: to survive. In its dynamic aspect it might simply be a general term for all of the eleven strivings we have already introduced and perhaps some more. We might connect it more specifically with the striving for perfection, for wholeness, completeness, and self-madeness, as suggested by the special use of the term in the *Ethics*. Thus, we may write:

SF17	$\text{PesO}(x) \sim \text{ESO}(x)$	“To strive for self-preservation mutually implies to strive for higher levels of being in oneself.”
------	-------------------------------------	---

The equivalences of ES, CS, and the other in-itself predicates result in corresponding theorems, for instance:

SF18	$\text{PesO}(x) \sim \text{LO}(x)$	From SF17 and SB14. “To strive for self-preservation mutually implies to strive for higher levels of freedom.”
------	------------------------------------	---

JOY

SF19	$\text{PesO}(x) \sim \text{PO}(x)$	Suggested by SD51. “To strive for self-preservation mutually implies to strive for an increase in power.”
SF20	$\text{Pes}_{\text{in}}(x) \sim \text{P}_{\text{in}}(x)$	Suggested by SF19. “Increase in self-preservation mutually implies an increase in power.”
SF21	$\text{Pes}_{\text{in}}(x) \sim \text{Per}_{\text{in}}(x)$	From SF20 and SF7. “Increase in self-preservation mutually implies an increase in perfection.”
SF22	$\text{Pes}_{\text{in}}(x) \sim \text{Lae}(x)$	From SF21 and SF6. “Increase in self-preservation mutually implies a state of joy.”
SF23	$\neg(\exists x) \text{Pes}_0(x)$	From SF21 and SF15. “There is nothing that has zero level of self-preservation.” “Everything preserves itself to some degree.”

The principle of self-preservation as exemplified and as defined by philosophers and biologists since the Stoics has a main component of defense against attack. It covers behavior and structures adapted to maintaining an equilibrium under threats from the environment. The organisms have mechanisms to counteract disturbances. Conceived in this way, the principle has acquired renewed importance through the ecology movement.

In Spinoza’s *Ethics*, the term is not defined in this way, but from the contexts we can infer what he considers to be an increase or decrease in the level of self-preservation. Even if he sometimes writes things that suggest that self-preservation is an *aim* that uses power increases and increases in freedom as *means*, there is no indication how this comes to be.

A term that is somewhat more capable of carrying the burden Spinoza places on *self-preservation* is *self-realization*. The self “is to be realized.” If the

term *self* refers to something capable of development to an expansion, self-realization is more than preservation and conservation.

It involves change from “within” by interaction with environment. The term suits Spinoza’s dynamism better than *self-preservation*. Its history is very long, going back to early Greek and Indian philosophy. Its latest bloom in the Indian tradition is Gandhi’s metaphysical notion of realizing the self, truth, and God. God is, in this metaphysics, *ātman*, not a transcendental entity. “God is not outside this earthly case of ours” (*Harijan* 13.6.1936; quoted in Prabhu and Rao 1967: 54). *Ātman* and the Self with capital *S* enjoy a kind of double manifestation, both as a universal Self and as a component (sometimes “witness” or “voice”) in individual selves.¹ It is therefore not far-fetched to link Spinoza and Gandhi at this point.

In conclusion, I propose that the predicate “increased (level of) self-preservation” is understood in the sense of “increased level of self-realization,” taking “self-realization” to be a process whereby the self or ego expands and gains in power. This process is here not conceived as something different from increasing one’s level of being in oneself. Thus, we introduce a predicate “level of self-realization” (*Sre*) and assert:

SF24	$Sre_{in}(x) \text{ ekv } ES_{in}(x)$	“An increase in self-realization is extensionally equivalent to an increase in being in oneself.”
------	---------------------------------------	---

Through this theorem, self-realization is connected with previous notions. Thus, we obtain:

SF25	$Sre_{in}(x) \sim Pes_{in}(x)$	Suggested by SF24 and SF17. “To increase in self-realization mutually implies to increase in self-preservation.”
SF26	$AdSre(x) \sim AdPes(x)$ $\sim ES(x)$	From SF25 and SF24. “To completely realize oneself, to completely preserve oneself and to be completely in oneself, mutually imply each other.”

JOY

To the opposite process of self-realization we give—not quite arbitrarily—the name “alienation.” An increase in alienation, of *in alio esse*, would then correspond to an increase in “being in something else”:

SF27 $\text{Alienation}_{\text{in}}(x) \text{ ekv } \text{EA}_{\text{in}}(x)$

But here the temptation to introduce additional terms should be curbed: *alienation* may be dropped from our structure since it points to only one of many interpretations of a heavily misused term.

Cheerfulness (Hilaritas)

[T]he emotions by which we are agitated daily are mostly related to some part of the body which is more strongly affected than others: this is why emotions mostly have an excess, and in such a way hold down the mind that it can only think of one subject and nothing else. . . . (IVP44Sch)

If strong, an emotion may impede the development of many parts of the mind and body. This is the case when it is concentrated in only one or a few parts.

Joy either affects all parts of mind and body equally, increasing the total power, or unequally, increasing the power of all parts, but unevenly. At least when intense, the unevenness directly impedes the development of the neglected parts. There may in that case be no increase in total power, understanding, or perfection.

Joy (*laetitia*) is accordingly of two kinds. Here we shall deal with the uniformly homogeneous joy affecting all parts of the person. Spinoza calls it *hilaritas*. We shall use the term *cheerfulness*.

SF28	$\text{Hil}(x) \sim (y) \text{P}_{\text{in}}(xy)$	“If somebody is in a state of (pervasive) cheerfulness then he is increasing his power in all relations, and vice versa.”
------	---	---

SF28 is suggested by IIP11Sch, IVP42, IVP42Dem, and IVP44Sch. The term *pervasive* is inserted because the cheerfulness must somehow permeate the whole person and all avenues of interaction with the world and oneself.

Hilaritas cannot exist when one is blocking the awareness of unpleasant, undigested difficulties. The state presumes the absence of repression in a psychoanalytical sense. Therefore, it is perhaps to be considered a “theoretical maximum concept” like that of an “ideal gas” or “*perpetuum mobile*,” but scarcely an *ens rationis*. It is not a mere construction used in thinking. While occurrences of *hilaritas* can be rare (*concupitur facilius, quam observatur*), Spinoza does not discount them. It is compatible with what is said in the parentheses to hold that most people often experience *hilaritas*. Obviously, to *observe* others’ or our own *hilaritas* is not so easy. One would have to make some assumptions, whereas the observation of someone jumping over a hedge can be made rather directly.

Increase in power is equivalent to increase in the other properties of the *in se* class. Using SF21, we may therefore write:

SF29	$Hil(x) \sim AdES_{in}(x)$	From SF28 and SD51a. “A state of (pervasive) cheerfulness mutually implies a state in which we increase our level of being in ourselves.”
SF30	$Hil(x) \sim CS_{in}(x)$	From SF29 and SA13. “A state of (pervasive) cheerfulness mutually implies a state of general increase of understandability of oneself through oneself.”
SF31	$Hil(x) \sim AdL_{in}(x)$	From SF30 and SB16. “A state of (pervasive) cheerfulness implies a state of increasing freedom in all relations, and vice versa.”

The cheerful person increases his level of activeness and the degree to which he causes his own reactions and states of mind:

SF32	$Hil(x) \sim AdD_{in}(xx)$	From SF31 and SC22. “A state of (pervasive) cheerfulness is one of increasing self-causation, and vice versa.”
------	----------------------------	---

JOY

SF ₃₃	$\text{Hil}(x) \sim \text{AdG}_{\text{in}}(x)$	From SF ₃₂ and SC ₃₇ . “A state of (pervasive) cheerfulness implies an increasing level of activeness, and vice versa.”
SF ₃₄	$(y) \text{Per}_{\text{in}}(xy) \sim \text{Hil}(x)$	From SF ₁₂ and SF ₂₉ . “A pervasive increase in perfection mutually implies a state of cheerfulness.”
SF ₃₅	$(y) \text{Pes}_{\text{in}}(xy) \sim \text{Hil}(x)$	From SF ₃₄ and SF ₂₁ . “A pervasive increase in self-preservation mutually implies a state of cheerfulness.”

Pleasurable Excitement (Titillatio)

A joy may correspond to a universal increase in power and perfection, or a partial increase in power and perfection with no part decreasing, or a partial increase combined with a partial decrease. In the last case we have a species of mixed feeling, which we shall leave out here. In the second case, we have *titillatio* “pleasurable excitement.” Thus, we introduce a new predicate, Tit, and state:

SF ₃₆	$\text{Tit}(x) \sim (\exists y) \text{P}_{\text{in}}(xy) \& (\exists z) \neg \text{P}_{\text{in}}(xz) \& \neg (\exists t) \text{P}_{\text{de}}(xt)$	Suggested by IVP ₄₃ Dem. “If somebody is in a state of pleasurable excitement, he increases in power in at least one, but not all, relations, and decreases in none, and vice versa.”
SF ₃₇	$\text{Tit}(x) \sim \text{InP}_{\text{in}}(x)$	From SF ₃₆ and SD ₆₅ . “To be in pleasurable excitement mutually implies to increase partially in power.”
SF ₃₈	$\text{Tit}(x) \sim \text{InES}_{\text{in}}(x)$	From SF ₃₆ , SD ₆₁ , and SA ₁₃ . “To be in pleasurable excitement

		mutually implies to increase, but only partially, one's level of being understandable by oneself."
SF39	$\text{Tit}(x) \sim \text{InL}_{\text{in}}(x)$	From SF38 and SB16. "To be in a state of pleasurable excitement mutually implies a partial increase in freedom."

These theorems give too bright a picture of *titillatio*. According to IVP43Dem, an intense *titillatio* may completely block any major increase in freedom and hold its level back at a very low state. Considering the vast possibilities for human freedom, one can imagine how increasing *titillatio* might involve a decrease in freedom. These quantitative and complex considerations do not invalidate the above theorems, but instead highlight their limited value.

Sorrow, Melancholy, and Pain

Spinoza's theorems on *laetitia*, *hilaritas*, and *titillatio* make it obvious that there are no words in English that convey the differences. The same holds for the corresponding triplet *tristitia*, *melancholia*, and *dolor*. One should therefore primarily note the conceptual bonds, the structure, and not take the translations seriously. To find suitable (complex) designations in English constitutes a task requiring extensive semantical studies.

Sorrow (*tristitia*), the negative affect corresponding to the positive joy; *melancholia*, corresponding to cheerfulness (*hilaritas*); and pain (*dolor*), corresponding to pleasurable excitement, will be introduced in an analogous way.

SF40	$\text{Tri}(x) \sim \text{P}_{\text{de}}(x)$	From IIIP59Dem and IIIP11. "Sorrow is a state of decreasing power, and the state of decreasing power is also a state of sorrow." "Sorrow mutually implies reduc- tion of power."
------	--	---

JOY

SF41	$\text{Tri}(x) \sim (\exists y) P_{de}(xy)$	From SF40. “When sorrowful, a being decreases in power in at least one respect.”
SF42	$\text{Tri}(x) \sim (y) ES_{de}(xy)$ $\vee (\exists y) ES_{de}(xy)$ $\& (\exists z) -ES_{de}(xz)$	From SD61, SD67, and SF40. “To have sorrow mutually implies a loss in level, partial or total, of being in oneself.”
SF43	$\text{Tri}(x) \sim (y) L_{de}(xy)$ $\vee (\exists y) L_{de}(xy)$ $\& (\exists z) -L_{de}(xz)$	From SD63, SF67, and SF40. “To have sorrow mutually implies a loss of freedom, partial or total.”
SF44	$(x): H(x) \supset \text{TriNO}(x)$	Suggested by SE21 and SF40. “All humans strive to avoid sorrow.”
SF45	$\text{Tri}(x) \sim (y) \text{Per}_{de}(xy)$ $\vee (\exists y) \text{Per}_{de}(xy)$ $\& (\exists z) -\text{Per}_{de}(xz)$	Suggested by SF7 and SF40. “To have sorrow mutually implies a loss of perfection, partial or pervasive.”
SF46	$\text{Tri}(x) \sim (y) \text{Pes}_{de}(xy)$ $\vee (\exists y) \text{Pes}_{de}(xy)$ $\& (\exists z) -\text{Pes}_{de}(xz)$	Suggested by SF21 and SF45. “To have sorrow mutually implies a lowering of the level of self-preservation, partial or pervasive.”

From the above, it is seen that the predicate *tristitia* (sorrow) behaves exactly like *laetitia*—only, with negative implications. Mixed states of emotion are such that components of both joy and sorrow are present.

SF47	$\text{Mix}(x) \supset (\exists y) \text{Lae}(xy)$ $\& (\exists z) \text{Tri}(xz)$	“If a being is in a state of mixed emotion, both joy and sorrow are present to some degree.”
------	---	--

The joy may move practically all parts of the person, the sorrow only a very limited set. To get into such a state may represent an improvement in overall power, an increase in self-preservation, and so forth. We perform, to take an example, a joyful task, but it may involve physical pain.

There is, however, a state with no such consoling features: melancholy, the polar opposite of cheerfulness.

SF48	$\text{Mel}(x) \sim (y) P_{\text{de}}(xy)$	Suggested by IIP11Sch. “Melancholy is the state in which we decrease power in every relation, and vice versa.”
SF49	$\text{Mel}(x) \sim (y) G_{\text{de}}(xy)$	Suggested by SD60 and SF48. “A state of melancholy is one of total decrease in activeness, and vice versa.”
SF50	$\text{Mel}(x) \sim (y) CS_{\text{de}}(xy)$	From SF49 and SC38b. “Melancholy is such that there is a pervasive decrease in understanding of things through oneself, and vice versa.”
SF51	$\text{Mel}(x) \sim (y) \text{Pes}_{\text{de}}(xy)$	Suggested by SF48 and SF20. “A state of melancholy mutually implies a reduction of self-preservation in all relations.”

Last of all, the negative effect, “pain” (*dolor*), corresponds to the positive effect “pleasurable excitement.”

SF52	$\text{Dol}(x) \sim (\exists y) P_{\text{de}}(xy)$ $\& (\exists z) \neg P_{\text{de}}(xz)$ $\& \neg (\exists t) P_{\text{in}}(xt)$	Suggested by IVP43Dem. “To be in pain is to be in a state such that there is a decrease of power in at least one relation, a lack of decrease in power in at least one relation, and no relation in which power is increased.”
------	--	---

Pain experienced during pleasurable undertakings does not fall under SF41, because of the partial joy present. More importantly, discomfort and conditions that, during emotionally neutral or negative time intervals,

JOY

should be experienced as painful, are normally not thus experienced if the integrated undertaking as a totality is one of joy. If a person is about to carry the assembly toward his own conclusion on an important matter, he is unlikely to experience as painful the polluted air, hard chair, slight toothache, or moderate thirst. If there is a clearly dominant joyful relation, circumstances that are mostly experienced as heavily painful, distressing, or frustrating will not appear as such. All this seems implied in Spinoza's teaching, as conceived in the foregoing—with the addition of the superior efficacy of joy insofar as it increases the power of the person. Sorrow tends to have more sorrow as a feedback; joy has joy as feedback. This is part of the background for Spinoza's claim that *love* is more potent than *bate*.

SF53	$\text{Dol}(x) \sim \text{InP}_{\text{de}}(x)$	From SF52 and SD65. "To be in pain mutually implies to decrease partially in power."
------	--	--

The letters "In" here, as shorthand for "inadequate," may mislead. *Partial* is the term we need to symbolize. (But "P" is already used for "power"!) The term *partial* suits both positively and negatively loaded predicates, *inadequate* only negative ones. In Spinoza's terminology, *partial* has a strong position because of his affinity to mechanistic or materialistic views. Inadequate conceptions are partial conceptions (never quite false!). In the expression "inadequate idea," however, it may be doubted whether *partial* is a good substitute. The inadequate idea is an unclear, vague, or loose one. The Cartesian conception of clarity and distinctness does not lend itself to the part/whole terminology.

There is also, however, important evidence here in favor of the possibility of an analysis of *inadequate* in terms of partiality (cf. pp. 32–33). The expression "clear and distinct" (*clare et distincte*) is indirectly connected by Spinoza in IIP30Sch with his part/whole terminology. There it is said that we do not obtain adequate conceptions of things when we take them as isolated. The conceptions are then confused and fragmentary (*confusa et mutilata cognitio*). But if we take notice of many things together (*res plures simul contemplatur*) with their likenesses and differences, we conceive things clearly and distinctly (*clare et distincte*). Spinoza is here able to explain inadequateness in terms of lack of clearness and distinctness and explain this lack in terms of isolation of one thing from others. That is, he shows the possi-

bility of defining inadequateness of conceptions, and therefore ideas, in terms of partiality. Clearness and distinctness will then be a property of a conception of a “whole” of interacting or interdependent parts.

“How large are these wholes?” one may ask. Ultimately, all of nature is a whole. A gradation of wholes like a gradation of *gestalts* seems warranted; if not, Spinoza would have to assert that man never has adequate conceptions because he can never “contemplate” nature as an (absolutely complete) whole.

SF54	$\text{Dol}(x) \sim \text{InCS}_{\text{de}}(x)$	From SF52, SD61, and SA13. “To be in pain mutually implies to decrease partially the level of understanding oneself through oneself.”
SF55	$\text{Dol}(x) \sim \text{InL}_{\text{de}}(x)$	From SF52 and SB16. “To be in pain is to undergo a partial loss of freedom, and vice versa.”

Pain may, under certain circumstances, be a good, and pleasure an evil, according to Spinoza. If the pleasure affects too narrow a range of “parts” too intensely, the adverse effects on other parts increase (geometrically?). This means that there is a “maximum field” for any pleasure. By an appropriate function this can, of course, also be put into symbols. For our present purposes, however, this would be pedantic, bordering even on the ridiculous.

In regard to pain, it may have a beneficial function in that in a more comprehensively conceived situation it represents an increase in power. Just as a partial joy (a pleasurable excitement) may indirectly be an obstacle to increased freedom, pain may be a positive stimulant. In short, joy is as such “good” and sorrow is as such “bad,” but under certain circumstances sorrow may help, that is, be “good,” and joy may be “bad.” This leads us to a consideration of the predicates good and bad.

VII

Good and Bad and Usefulness

The use of the terms *bonum* and *malum* in the *Ethics* suggests several, rather different, concepts. An adequate analysis would have to take into account more than two hundred occurrences with the possibility of widely different interpretations, all of them based on solid textual considerations.¹ Here we shall concentrate on an important subclass of the occurrences, in which “good” does not appear to mean something different from “useful,” when taken to include noninstrumental usefulness. That is, when asked to answer the question What is *x* useful for?, we can answer, “It is in itself useful; *x* is useful for *x*.” Thus employed, *both* intrinsic and extrinsic values may be called useful. An example of this is (IVP18Sch): “Secondly it follows that virtue is to be sought for its own sake, and that there is nothing more excellent or more useful for us. . . .”

Let us take as a point of departure something said in IVP18Sch:

Since Reason does not demand anything contrary to Nature, it demands that everyone love himself, look for what is useful, what really is useful, to himself, and that he strive to obtain all that really leads man to greater perfection. . . .

This occurrence—and many others—suggests that we may express one of the predicates intended by the designation “useful” as follows: *x* is useful if and only if it leads to increased perfection. At the same place in the *Ethics*, and clearer in IVP20Dem, the intimate relation between the useful and preservation of one’s being is expressed. Accordingly, we thus introduce usefulness:

SG1 $\text{Uti}(xy) \sim \text{D}(x(\text{Per}_{\text{in}}(yz)))$ “That something, *x*, is useful to *y*, mutually implies that it causes *y* to increase in perfection in some relations.”

The introduction of the term *cause* is problematic. The useful is primarily useful as a means, an instrument, a favorable condition for something else. Its role as cause scarcely extends much further. Or does it?

Spinoza makes a broader and more noble use of the term *useful* than we do in everyday life: friends are *most* useful. According to IVP18Sch, the useful “leads” man to higher degrees of perfection. Man is *led* by the useful. If Spinoza had developed a notion, “instrumental,” that clearly distinguished itself from the many notions of cause, we would introduce “useful” in terms of “instrumental.” But he does not. According to our plan, we introduce “good” by taking it to be synonymous with “useful” (in the selected sense):

SG2	$\text{Bon}(xyz) \text{ Def } \text{Uti}(xyz)$	“ x is good for y in relation to z ” shall mean the same as “ x is useful for y in relation to z .”
-----	--	---

From this and previous theorems we now infer some new equivalences of interest.

SG3	$(z) \text{ Uti}(xyz)$ $\sim (z) \text{ D}(x(\text{P}_{\text{in}}(yz)))$	From SF12 and SG1. “That something is entirely useful for someone mutually implies that it causes an increase in power in all relations.”
SG4	$(z) \text{ Bon}(xyz)$ $\sim (z) \text{ D}(x(\text{P}_{\text{in}}(yz)))$	From SG2 and SG3. “That something is entirely good for someone mutually implies that it causes an increase in power in all relations.”
SG5	$\text{Bon}(xy)$ $\sim \text{D}(x(\text{P}_{\text{in}}(y)))$	From IVP8Dem, and also from SG4. “That something is good for someone implies that it increases his power, and vice versa.”

Spinoza does not often talk about the disuseful or harmful. We introduce *malum* (bad) by its direct connection to decrease of power:

SG6	$\text{Mal}(xy) \sim \text{D}(x(\text{P}_{\text{de}}(y)))$	From IVP8Dem. “That something is bad for someone implies that it decreases his power, and vice versa.”
SG7	$\text{Bon}(xy) \sim \text{D}(x(\text{Pes}_{\text{in}}(y)))$	From IVP8Dem, and also from SG5 and SF20. “That something is good for someone mutually implies that it increases his level of self-preservation.”
SG8	$(z) \text{Uti}(xyz)$ $\sim (z) \text{D}(x(\text{Pes}_{\text{in}}(yz)))$	From SF21 and SG1. “Something is entirely useful if and only if it increases the level of self-preservation in all relations.”
SG9	$(\exists z) \text{Bon}(xyz)$ $\sim (\exists z) \text{D}(x(\text{Pes}_{\text{in}}(yz)))$	From SG8 and SG2, and also from IVP8Dem. “Something is good if and only if it increases the level of self-preservation in some relations.”
SG10	$(z) \text{Bon}(xyz)$ $\sim (z) \text{D}(x(\text{ES}_{\text{in}}(yz)))$	From SE10 and SG11. “If something is entirely good, it causes a pervasive increase in the level of being in oneself, and vice versa.”
SG11	$(z) \text{Bon}(xyz)$ $\sim (z) \text{D}(x(\text{AdF}(yz)))$	From SG4 and SE4. “If something is entirely good for someone, it causes him to have a purely active emotion.”
SG12	$(z) \text{Bon}(xyz)$ $\sim (z) \text{D}(x(\text{AdD}_{\text{in}}(yz)))$	From SE12 and SG11. “If x is entirely good for y , it causes y to increase its level of adequateness as a cause in all relations.”

GOOD AND BAD AND USEFULNESS

SG13	$(z) \text{Bon}(xyz)$ $\sim (z) \text{D}(x(\text{L}_{\text{in}}(yz)))$	From SE14 and SG11. “If x is entirely good for y , it causes y to increase its freedom in every relation.”
SG14	$(z) \text{Bon}(xyz)$ $\supset \text{D}(x(\text{Hil}(yz)))$	From SF31 and SG13. “If x is entirely good for y , it causes y to be cheerful.”

The foregoing theorems place “totally” or “entirely” and “useful” or “good” among the totally positive predicates. Symmetry requires the introduction of partial goodness and utility, $\text{InBon}(x)$ and $\text{InUti}(x)$, and of two sets of negative predicates, $\text{Mal}(x)$, $\text{InMal}(x)$, $\text{Inu}(x)$, and $\text{InInu}(x)$, where “Inu” represents inadequate utility. It is easily seen that we get a series of theorems corresponding to other sets of “partiality” or inadequacy theorems.

Since the useful or good is said to cause something, it is also endowed with activeness, freedom, and the other predicates we primarily—but not exclusively—attach to human beings. Thus, according to our present stipulation, we must accept $(\exists z) \text{Uti}(xyz) \supset (\exists t) \text{D}(xt)$, from which follows, $\text{L}_{>0}(x)$, $\text{ES}_{>0}(x)$, $\text{CS}_{>0}(x)$, and so on. These consequences are not serious, since we have already accepted that all particular things, as something through which God acts and as something that expresses God, have at least some rudimentary causal weight and therefore also some freedom. But what about the implications $(z) \text{Uti}(xyz) \supset (t) \text{D}(xt)$ and $(z) \text{Bon}(xyz) \supset (t) \text{D}(xt)$? Does the universally useful and good cause all things?

First, it must be noted that the implicate scarcely follows from the implications. We lack the necessary stipulations concerning the ranges of x , y , z , and t . But suppose the implication is made valid. It would raise x to the level of God: the eminently good and the eminently useful is God. Noting the role of perfection, we would have to say that if something is God, it causes gain in the perfection of all things. And if something causes perfection in all things, it is God.

Instead of accepting some or all of these consequences, we may modify or give up SG1, or accept it but make suitable stipulations concerning the ranges of x , y , z , and t . Spinoza’s text may help us make a wise decision, but he does not impose any definite one.

SG15	$Bon(xy) \sim D(x(Lae(y)))$	From IVP48Dem, and also from SG5 and SF1. “If something is good for someone, it causes him joy, and vice versa.”
SG16	$Mal(xy) \sim D(x(Tri(y)))$	From IVP48Dem, and also from SG6 and SF40. “If something is bad for someone, it causes him sorrow, and vice versa.”

Spinoza classifies sorrow (*tristitia*) itself as a bad thing (*malum*) in IVP50Dem. Is this in accordance with the introduced notion, or does it exemplify a different notion? Through sorrow we make a transition to a lower level of perfection or power, says Spinoza. But he also says that sorrow *is* the transition. Sorrow scarcely causes the transition and therefore scarcely causes sorrow. My tentative answer is that when Spinoza calls sorrow bad, he uses the term in a way that I have not yet accounted for.

VIII

Virtue and Reason

Virtue

In IVD8, and many other places, Spinoza says that by “virtue and power” he understands “the same.” This formulation is too simple to convey his thought, but it will do no harm to use it as a bridge between the new notion and our old ones:

SH1	$\text{Vir}(x) \text{ ekv } P(x)$	From IVD8. “Virtue is power, and power is virtue.”
-----	-----------------------------------	---

The simple formulation above does not cover IVD8 in its totality, but is followed by a *hoc est*, a “that is,” introducing a considerably more complex formulation. This and IVP₂₃Dem suggest:

SH2	$\text{Vir}(xy) \sim \text{CS}(xy)$	“A person acts virtuously (<i>ex virtute agit</i>) in relation to something, if this something can be understood through himself, and vice versa.”
SH3	$\text{Vir}_{\text{in}}(x) \sim P_{\text{in}}(x)$	From SH1. “Increase in action according to virtuous action implies increase in power, and vice versa.”
SH4	$(y) \text{Vir}(xy) \sim (y) P(xy)$	From SH3. “To act virtuously in all relations mutually implies to act powerfully in all relations.”

VIRTUE AND REASON

SH ₅	$\text{Vir}_{\text{in}}(x) \sim \text{L}_{\text{in}}(x)$	From SH ₃ and SD ₅₁ . “Increase in virtuous action implies an increase in freedom, and vice versa.”
SH ₆	$\text{Vir}_{\text{in}}(x) \sim \text{CS}_{\text{in}}(x)$	From SH ₂ . “Increase in virtuous action implies an increase in level of understandability through one-self, and vice versa.”
SH ₇	$\text{Vir}_{\text{in}}(x) \sim \text{Pes}_{\text{in}}(x)$	From SH ₃ and SF ₂₀ . “An increase in level of virtue implies an increase in level of self-preservation, and vice versa.”
SH ₈	$\neg(\exists x) \text{Vir}_o(x)$	From SH ₅ and SD ₄₀ . “No being is without some virtue.”
SH ₉	$(\exists x) \text{Vir}(x)$	From SH ₅ , SB ₁₄ , and SD ₁₁ . “There is at least one thing that is absolutely virtuous.”
SH ₁₀	$(x)(y): \text{Vir}(x) \& \text{Vir}(y) \supset x = y$	From SH ₅ , SB ₁₄ , and SD _{11a} . “There is one and only one thing that is absolutely virtuous.”

This implies that if two or more entities are absolutely virtuous, they are identical.

The last two theorems unambiguously point toward God or Substance or Nature as something absolutely virtuous. This might not be Spinoza’s intention. But it is very difficult for him to avoid the implications. The clearly stated, intimate relations between virtue, freedom, and power are difficult to dissolve without undermining a score of theorems in the *Ethics*.

In the present reconstruction, the notion of God is a special kind of maximum concept, and the above theorems are perfectly digestible within the system.

SH11	$\text{Vir}_{\text{in}}(x) \supset F(x)$	From SE16 and SH5. “To increase one’s level of virtue implies being in a state of emotion, and when one increases in virtue, one is in a state of emotion.”
SH12	$\text{Vir}_{\text{in}}(x) \sim \text{Lae}(x)$	From SH3 and SH11. “The one who increases in virtue is in a state of joy, and the one who is in a state of joy increases in virtue.”
SH13	$(y) \text{Vir}_{\text{in}}(xy) \sim \text{Hil}(x)$	From SH3 and SF28. “The one who increases in virtue in all relations is in a state of cheerfulness, and vice versa.”
SH14	$(x): H(x) \supset \text{VirO}(x)$	From SH3 and SE21. “Man strives to raise his level of virtue.”
SH15	$\text{Bon}(xy) \sim D(x(\text{Vir}_{\text{in}}(y)))$	From SH3 and SG5. “That something is good for someone implies that it increases his level of virtue.”
SH16	$\text{Uti}(xy) \sim D(x(\text{Vir}_{\text{in}}(y)))$	From SG2 and SH15. “That something is useful for someone mutually implies that it increases his level of virtue.”

Reason

According to IVP56Dem, “to act out of virtue [*ex virtute*] is nothing else than to act out of reason [*ex ductu rationis*].” In IVP24 and IVP36Dem the same point is made.

SH17	$\text{Vir}(x) \text{ ekv } \text{Rat}(x)$	From IVP56Dem. “To act virtuously is to act according to reason.”
------	--	--

VIRTUE AND REASON

We shall refrain from stating the sixteen theorems analogous to SH1 through SH16 that follow from SH17, by inserting “Rat” for “Vir.” We shall, however, make explicit the relation of rationality and emotion.

SH18	$\text{Rat}_{\text{in}}(x) \supset F(x)$	From SH11 and SH17. “When increasing one’s level of rationality, one is in a state of emotion.”
SH19	$\text{Rat}_{\text{de}}(x) \supset F(x)$	Suggested by SH17, SH1, and SF40. “When decreasing one’s level of rationality, one is in a state of emotion.”
SH20	$(y) \text{Rat}_{\text{in}}(xy) \sim \text{Hil}(x)$	From SH17 and SH13. “A pervasive increase in rationality mutually implies a state of cheerfulness.”
SH21	$\neg \text{Hil}(x) \supset \neg (y) \text{Rat}(xy)$ & $\neg (y) \text{Vir}(xy)$	Suggested by SH17 and SH20. “Absence of cheerfulness implies a complete absence of virtue and reasonableness.” “If someone acts without cheerfulness, he or she acts without complete virtue or reasonableness.”
SH22	$(y) \text{Rat}_{\text{de}}(xy) \sim \text{Mel}(x)$	Suggested by SH17, SH1, and SF48. “If a person decreases pervasively in rationality, he is in a state of melancholy, and vice versa.”

Accordingly, in every case of melancholy—as conceived by Spinoza—there is a pervasive decrease in rationality.

Spinoza stresses the close connection between “acting from reason” and freedom when he states, “The free man, that is, the man who lives only ac-

cording to what reason dictates . . .” (IVP57Dem) and “I say that he who is free only follows reason” (IVP58Dem).

SH23	$(x)(y) \text{ Rat}(xy)$ $\text{ekv } (y) \text{ L}(xy)$	Suggested by IVP58Dem. See also IVP67Dem and IVP4Sch. “The completely rational is the completely free.”
SH24	$\text{Rat}_{\text{in}}(x) \sim \text{L}_{\text{in}}(x)$	From SH23. “Increase in rationality and increase in freedom mutually imply each other.”

In IVP73, Spinoza makes a well-known statement (already quoted): “The rational man [*homo qui ratione ducitur*] is more free in society . . . than alone.” From this it may be inferred that a person can maintain a stable, high level of rationality while alone: only in such a case would Spinoza call him a rational person. But it may also be inferred that stability in level of rationality is consistent with variations in degrees of freedom: if a rational man can leave the state of loneliness and enter a society, he would change his level of freedom. The last conclusion is clearly against our theorem SH24. Various moves are open. One is to give up the mutual implications between freedom and rationality. This, however, conflicts with clear confirmations in the text of the implications (cf. IVP54Sch, IVP57Dem, IVP58Dem, IVP67Dem, IVP68Dem, and IVP72Dem). If we nevertheless gave up these implications, a number of others might also be considered highly vulnerable, and the hypothesis of structural simplicity would have to be reconsidered.

A second approach is more reasonable: to declare that what is said in IVP73 does not amount to more than the statement that “The man who has reached a high level of rationality will find the environment of a state better suited for maintaining the level and improving on it, than any other environment.” This tack amounts to accepting the hypothesis that the use of “more free” (*magis liber*) is somewhat loose in IVP73.

A third approach, closely related to the second, is simply to declare that the occurrence of “more free” in IVP73 does not belong to the occur-

VIRTUE AND REASON

rences of “free” that our reconstruction pretends to cover. This might seem self-defeating to some, but an interpretation that could be *shown* to be in harmony with *every* occurrence of the principal terms of the *Ethics* is out of reach. The best way to obtain a realistic view of what we can hope to attain is to go through lists of occurrences of such terms. Consistency is only reached through more or less free reconstructions and the acceptance of a series of more or less historically unsupportable semantical hypotheses. Authors who seem to hold implicitly that the set of their interpretative hypotheses is perfectly consistent with every occurrence of every term involved, may perhaps not have carried out any analysis at all. Would such work perhaps make Spinoza’s appreciators less enthusiastic about trying to apply his work or less sure the text can be of any help in life? The immense complications may repel them.

SH25	Rat(xy) ~ Vir(xy) ~ Pes(xy)	From IVP24. “To behave rationally, to act virtuously, and to preserve one’s being in relation to something, all mutually imply each other.”
------	--------------------------------	--

In IVP24, Spinoza equates “to act *absolutely* out of virtue” (*ex virtute absolute agere*) with the other two nonabsolute predicates, but such a dissymmetry would disturb the whole structure. The restless identification of the three on the level of connotation (*haec tria idem significant*) in the same proposition (IVP24) creates difficulties, to say the least.

The above comments are, I hope, well suited to make one realize that reconstructions cannot and should not follow *every* move in the thoughts and expressions of a great philosophic author.

IX

Self-Satisfaction

In what follows, a very tentative extension of the foregoing reconstruction is suggested. Love and self-satisfaction (*acquiescentia in se ipso*) are defined by Spinoza in relation to the “contemplation” of objects. He notes the causes of these emotions: “Love is joy accompanied with the idea of the external cause of the joy” (IIIAffD6); “Self-satisfaction is joy originating from man’s contemplation of himself and his power of action [*agendi potentia*]” (IIIAffD25). When trying to understand the latter notion, it is also profitable to inspect what Spinoza has to say about the opposite, humility (IIIAffD26, IVP53, and IVP53Dem).

Man’s power expresses itself in actions or activeness, in part unobservable by everyday means. What we may have as *latent* power does not concern us here. Accordingly, I take the emotion of self-satisfaction to refer to certain acts of reflection, that is, acts through which our activeness is “contemplated.”

I shall not assume that such meta-acts automatically follow acts as their shadows. Nor do I assume the possibility of an act being carried out without accompaniment of any act of reflection. Two quotations may be relevant here:

When the mind conceives itself and its power of activeness, it rejoices, and does so the more, the more distinctly it imagines itself and its power of acting (IIIP53).

He who has a true idea at the same time knows that he has a true idea, and cannot doubt the truth of the thing (IIP43).

Spinoza seems to assert that when we adequately cause something, that is, when we adequately conceive something, we also automatically and adequately conceive that we adequately conceive. We conceive our own activeness, our own essence, and we are gladdened. This joy, however, is itself an

SELF-SATISFACTION

act (cf. SE5) and presumably perceived adequately. If we do not choose our words with care, we may end up postulating an endless series of acts that, unavoidably, are instigated by a single process of adequate causation or conception.

Introducing a predicate “ x is in the state of self-satisfaction through contemplation of y ,” we ask the following question: has this variable, y , already appeared in the previous reconstruction?

When a person causes something adequately, he manifests active power (*agendi potentia*); we may therefore write:

SJ1	$\begin{aligned} &\text{AdD}(xy) \\ &\quad \& \text{Refl}(x, \text{AdD}(xy)) \\ &\quad \supset \text{Acq}(x) \end{aligned}$	<p>“If a person causes something adequately and contemplates (reflects on) this, he is in a state of self-satisfaction.”</p>
-----	---	--

This notation does not do justice to all the complexities of the idea of self-satisfaction but suffices to bring some essential features into our reconstruction. According to previous theorems, adequate causation is linked to other *in se* predicates. Are we willing to accept the implications?

SJ2	$\begin{aligned} &\text{AdC}(xy) \\ &\quad \& \text{Refl}(x, \text{AdC}(xy)) \\ &\quad \supset \text{Acq}(x) \end{aligned}$	<p>From SJ1 and SC3. “If a person conceives something adequately, and contemplates this, he is in a state of self-satisfaction.”</p>
SJ3	$\begin{aligned} &\text{AdG}(xy) \\ &\quad \& \text{Refl}(x, \text{AdG}(xy)) \\ &\quad \supset \text{Acq}(x) \end{aligned}$	<p>From SJ1 and SC37. “If a person is fully active in relation to something and contemplates this, he is in a state of self-satisfaction.”</p>
SJ4	$\begin{aligned} &\text{AdP}(xy) \\ &\quad \& \text{Refl}(x, \text{AdP}(xy)) \\ &\quad \supset \text{Acq}(x) \end{aligned}$	<p>From SJ1 and SD58. “If someone has full power in relation to something and contemplates this, he is in a state of self-satisfaction.”</p>

This theorem may well suggest itself from the very definition of self-satisfaction, IIIAffD25.

SJ5	$\begin{aligned} &\text{AdL}(xy) \\ &\quad \& \text{Refl}(x, \text{AdL}(xy)) \\ &\quad \supset \text{Acq}(x) \end{aligned}$	<p>Suggested by SJ4 and SD51.</p> <p>“If a person is fully free in relation to something and he contemplates this, he is in a state of self-satisfaction.”</p>
-----	---	--

All these theorems suggest, but do not presuppose, that self-satisfaction requires “optimum processes,” such as adequate causation, complete freedom, and so on. But Spinoza distinguishes higher and lower satisfaction (VP27) and also works in other ways with self-satisfaction as a graded predicate.

According to the definition of self-satisfaction, it is a kind of joy.

SJ6	$\text{Acq}(x) \supset \text{Lae}(x)$	<p>From IIIAffD26.</p> <p>“When one is in a state of self-satisfaction, one is in a state of joy.”</p>
SJ7	$\begin{aligned} &\text{AdD}(xy) \\ &\quad \& \text{Refl}(x, \text{AdD}(xy)) \\ &\quad \supset \text{P}_{\text{in}}(x) \end{aligned}$	<p>From SJ1, SJ6, and SF1.</p> <p>“When one is an adequate cause of something and reflects on this, one increases in power.”</p>
SJ8	$\begin{aligned} &\text{AdP}(xy) \\ &\quad \& \text{Refl}(x, \text{AdP}(xy)) \\ &\quad \supset \text{P}_{\text{in}}(x) \end{aligned}$	<p>“When one is adequately powerful in relation to something and reflects on this, one increases in power.”</p>

The increase in power is an increase in power in relation to something, z , and presumably in an adequate way:

SJ9	$\begin{aligned} &\text{AdP}(xy) \\ &\quad \& \text{Refl}(x, \text{AdP}(xy)) \\ &\quad \supset (\exists z) \text{AdP}(xz) \\ &\quad \& z \neq y \end{aligned}$	<p>“When one is adequately powerful in relation to something and reflects on this, one is adequately powerful in something else also.”</p>
-----	--	--

SELF-SATISFACTION

On contemplating the new power relation, we obtain joy and a new adequate power relation. There is, in principle, no limit here, but the exercise of higher-order reflection is presumably a very special case relating “only to a part of our body (and mind).” *Hilaritas* cannot be reached this way! By avoiding the theory of automatic reflection, we avoid the infinite series of meta-reflection. We may jump off when it suits us. The way to *hilaritas* is not blocked.

Mutual implications permit us to add a series of similar “chain reactions.” For instance:

SJ10	$\begin{aligned} &\text{AdL}(xy) \\ &\& \text{Refl}(x, \text{AdL}(xy)) \\ &\supset \text{AdL}(xz) \& z \neq y \end{aligned}$	<p>Suggested by SJ9 and SD63.</p> <p>“When adequately free in relation to something and reflecting on this, one is also adequately free in relation to something else.”</p>
------	--	---

This symbolization does not express that the new freedom is created through the old.

SJ11	$\begin{aligned} &\text{AdRat}(xy) \\ &\& \text{Refl}(x, \text{AdRat}(xy)) \\ &\supset \text{Acq}(x) \end{aligned}$	<p>Suggested by SJ10 and SH23.</p> <p>“Contemplation of an adequately rational relation implies self-satisfaction.”</p>
SJ12	$\begin{aligned} &\text{AdVir}(xy) \\ &\& \text{Refl}(x, \text{AdVir}(xy)) \\ &\supset \text{Acq}(x) \end{aligned}$	<p>From SJ11 and SH17.</p> <p>“Contemplation of an adequately virtuous relation implies self-satisfaction.”</p>

With this terminates our systematic introduction of terms equivalent to the basic *in se* and *in alio* terms. Of *in se* terms not introduced, several should be mentioned:

“x is God”

“x is substance”

“x partakes of God’s nature”

“the essence of x involves the existence of x ”

“it belongs to the nature of x to exist”

“the definition of x implies the existence of x ”

“ x acts according to the laws of x ’s nature”

“ x is determined to exist and operate through x ”

In relation to all of these terms, sets of theorems may be asserted that are analogous to the sets formulated in the foregoing exposition. Some of them are firmly based on the text of the *Ethics*; others are inferred on the basis of the requirements of consistency. As an example, one may note that in IVP24Dem, to act virtuously is identified with action according to (or “out of,” *ex*) the laws of one’s own nature. By means of analogous references, the above terms or predicates can be integrated into our reconstruction.

A note on the ranges of predicates: At the end of our structural study of selected predicates, one might think we are in a better position to find out about their ranges—the class of values, their extension, the things of which the predicates can meaningfully be predicated. We have touched on the subject several times. The texts are silent, however, or are, at best, vague. Some of the terms studied, for instance, *self-preservation* and *power*, are applied not only to humans, but also to animals and perhaps all living things. The equivalences, if used without restriction, imply that all the terms can be applied meaningfully to all living beings. Spinoza is remarkably different from the Cartesians in applying the predicates: he tends toward very wide applications, whereas the Cartesians are influenced by the spirit/body dualism and view human beings and God as sole possessors of spirit.

We cannot doubt that animals have feelings (*sentire*), Spinoza says in IIIP57Sch. They have emotions (*affectus*). But their joys (*gaudium*) are different from those of human beings. Their drives are different, and the differences are greater than those between humans. Here Spinoza not only talks about mammalia, but also about fish and insects.

The passive emotions are confused ideas (*idea confusa*) and the active emotions are clear ones (IIIAffGenD). Thus animals, having emotions, also have ideas and minds. When active, they not only have ideas, but consis-

SELF-SATISFACTION

tency demands that they also have ideas about ideas (cf. IIP58 and the theorems on self-satisfaction). There are, in short, no theorems in the *Ethics* to stop us in our attribution of all the introduced predicates to living beings “down” to insects or even further. The only qualification has to do with differences within each genus of entities. Living beings very different from us have correspondingly different joys, drives, and so on. How they are, Spinoza does not pretend to know. But, for his system, I think we must recognize that a very wide range of application of the predicates is essential.

All particular things are expressions of God; through all of them God acts. There is no hierarchy. There is no purpose, no final causes such that one can say that the “lower” exist for the sake of the higher. Every living being may, if the requisite power is there, use any other. There is an ontological democracy or equalitarianism—which, incidentally, greatly offended his contemporaries, but of which *ecology* makes us more tolerant today.

However generous in his attributions, the range of a predicate such as “virtuous” or “in harmony with what is rational” cannot be applied meaningfully to the beings of the mineral kingdom. I find it unfruitful, however, to draw a line at any particular place. With this rather negative conclusion, we shall leave the tantalizing question of the range of Spinozistic predicates. Perhaps we might permit Wordsworth to have the last word:

“To every Form of being is assigned,”
Thus calmly spake the venerable Sage,
“An *active* Principle: —howe’er removed
From sense and observation, it subsists
In all things, in all natures; in the stars. . . .”

From William Wordsworth, *The Excursion*, Book IX.

Communication and Argument

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

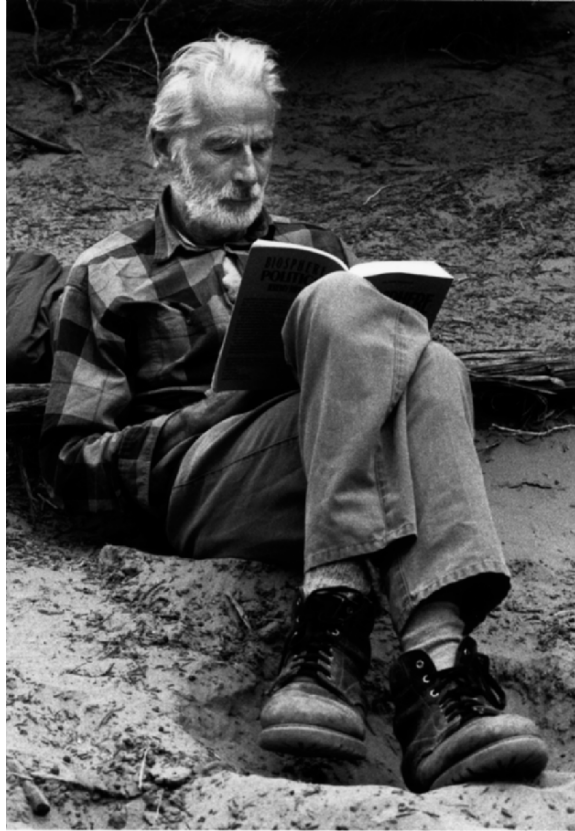
Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Communication and Argument

Elements of Applied Semantics

Translated from the Norwegian by Alastair Hannay

Revised and Edited by Harold Glasser
in Cooperation with the Author
and with Assistance from Alan Drengson

VOLUME VII

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

Originally published in English by Universitetsforlaget, Oslo, 1966 and 1981
(revised edition). Translated by Alastair Hannay. Published simultaneously by George Allen and
Unwin Ltd., London, and by The Bedminster Press, Totowa, New Jersey.

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>List of Figures</i>	<i>ix</i>
<i>Series Editor's Introduction</i>	<i>xi</i>
<i>Author's Introduction to the Series</i>	<i>lvii</i>
<i>Author's Preface to This Edition</i>	<i>lxiii</i>
<i>Author's Foreword to the First Edition</i>	<i>lxvii</i>
I. Interpretation	I
Grasping What Others Mean	1
Equivalence Between Expressions	9
When Are Expressions Equivalent?	12
Interpreting an Expression	16
Setting Forth Possible Interpretations	18
Reasonable Interpretations	19
Interpretation of Expressions Used as Terms	20
Depth of Intended Meaning	22
II. Precization and Definition	25
Language as an Instrument for Precization	25
Precization Defined	26
Prescriptive Definitions	31
Why Precize or Define?	37
How to Precize and Define	40
The Task and Pitfalls of Definition	41
Sources of Error in Precization	46
New Meanings for Old Terms	48
Fruitful Concepts and Appropriate Terms	50
Precizing Catchphrases and Metaphors	51
Deprecizing and Popularizing	53

CONTENTS

III. Analytic and Synthetic Sentences	55
The Distinction	55
Examples and Illustrations	58
Drawing Analytic Conclusions	61
IV. Agreement and Disagreement	63
A Theory of Two Common Misunderstandings	63
Applications of the Theory	69
Pseudo-Agreement in Argument	73
V. Surveys of Arguments for and Against a Standpoint	75
Psychological and Philosophical Background	75
<i>Pro et Contra</i> and <i>Pro aut Contra</i>	79
Issue Expressions	81
Argument Expressions	82
Tenability and Relevance of Arguments	84
VI. Effective Discussion	97
Introduction	97
Principle One: Avoid Tendentious References to Side Issues	98
Principle Two: Avoid Tendentious Renderings of Other People's Views	99
Principle Three: Avoid Tendentious Ambiguity	100
Principle Four: Avoid Tendentious Argument from Alleged Implication	102
Principle Five: Avoid Tendentious Firsthand Reports	105
Principle Six: Avoid Tendentious Use of Contexts	106
Review of Principles	106
Distinction Between Relevant Argument and Forms of Persuasion	108
 <i>References</i>	 111
<i>Index</i>	113

List of Figures

1. Relationships among expressions (“A”), statements (‘C’), and states of affairs (B).	4
2. Logical relationship of the six forms of equivalence for expressions T and U .	10
3. Relationships between two expressions, T and U .	30
4. Forms of analytic and synthetic sentences.	57
5. Schematic of the structure of an argument.	84

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he has witnessed the most significant loss of cultural diversity and the onset of

what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cultural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of

SERIES EDITOR'S INTRODUCTION

“fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess’s philosophical palette, not the “world” of his own consciousness as has become

the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related *gestalts*—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate *gestalts* are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our experience of the world is made up of *gestalts*. "[This] is the world we experience. Nothing is more real."⁴ People create abstract structures to reflect

SERIES EDITOR'S INTRODUCTION

on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess's parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess's "ontological realism" as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of "reality is one" plays a central role in the mature Naess's approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality's concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. "As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence."⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess's perspective, such accounts by themselves are merely a sign of cultural poverty. "God" could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess's gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as "the social construction of nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular

SERIES EDITOR'S INTRODUCTION

to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any “natural” tendencies toward anthropocentrism. As with Leopold’s Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we “see” reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess’s hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples’ (or other life-forms’) opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess’s own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, “For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape.”⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility

SERIES EDITOR'S INTRODUCTION

as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his

rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative systems can be seen as very "useful fictions," which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others

SERIES EDITOR'S INTRODUCTION

as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a

troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. "We have all read it. We *still* cheat in argumentation, but now with feelings of guilt."¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as "truth," "democracy," and "private enterprise." . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy

SERIES EDITOR'S INTRODUCTION

and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly prolific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of

SERIES EDITOR'S INTRODUCTION

print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a "great idea" without Doug's generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of envi-

SERIES EDITOR'S INTRODUCTION

ronment should not, in Naess's view, play a pivotal role in shaping a budding philosopher's development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess's philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess's principal writings. As such, the *Selected Works* is the definitive repository of Naess's oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess's philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded, and should follow his questions wherever they lead.

Arne Naess, "Norway"

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep

rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for "collecting" and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family's little "wilderness" before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother's small moun-

SERIES EDITOR'S INTRODUCTION

tain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours' walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza's *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess's desire for a broad and open perspective, for seeing things in totalities (god's-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth's biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potently influence his approach to philosophy.

Arne's youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School's first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others. During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way"—*sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek

broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical grammar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The

turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather "witness" science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality ("maze epistemology"), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess's interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that

change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess's 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers' intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as “*Truth as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's “Common Sense and Truth” (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Us-

SERIES EDITOR'S INTRODUCTION

taoset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created “institutes” of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into research and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi's catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi's idea of trying to meet one's opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war,

Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO's requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy's* richness, diversity, and multiplicity of meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess's “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess's empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess's frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

SERIES EDITOR'S INTRODUCTION

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO's plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess's research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on

scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or implied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is

SERIES EDITOR'S INTRODUCTION

Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation*

and Preciseness, to argue that it is an illusion to assert that combined scientific and philosophical or "purely" philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of "fundamental theories" is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V),

SERIES EDITOR'S INTRODUCTION

was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), "Seek complete self-realization" and "Seek truth," and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of "Self-realization!" as the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokely Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by

Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical structure, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions

SERIES EDITOR'S INTRODUCTION

taken earlier. Volume VIII includes sections on "Empirical Semantics and 'Truth,'" "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion,

and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as "inventing" deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas's 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson's *Silent Spring*. Naess's work on "deep ecology" can be subdivided into three main thematic areas.³⁰

What I refer to as Naess's deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess's general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work enter-

SERIES EDITOR'S INTRODUCTION

ing into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of “philosophical stupor,” in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The “shallow,” currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The “deep” approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach’s proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans’ special capacities for reason and moral consciousness come special responsibilities,

particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and

SERIES EDITOR'S INTRODUCTION

interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three

key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy)

SERIES EDITOR'S INTRODUCTION

make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally than usual, rendering *praeclara* as "very clear" rather than the typical "excellent."³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess's distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this ap-

proach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people's conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manu-

SERIES EDITOR'S INTRODUCTION

scripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and receive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and

SERIES EDITOR'S INTRODUCTION

Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface. George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also

SERIES EDITOR'S INTRODUCTION

performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mulvaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-

SERIES EDITOR'S INTRODUCTION

Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible “work fairies” that were constantly pulling me back to my office don’t actually exist. I can’t wait.

Most of all, thanks to Arne Naess for placing his trust in me—it’s been a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora’s box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne’s writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder’s “Axe Handles.” The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The

SERIES EDITOR'S INTRODUCTION

first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.

SERIES EDITOR'S INTRODUCTION

6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.
8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary

SERIES EDITOR'S INTRODUCTION

philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as

SERIES EDITOR'S INTRODUCTION

- being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.
24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
 25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
 26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Meneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
 27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhis Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
 28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
 29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
 30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecol-

SERIES EDITOR'S INTRODUCTION

ogy approach to ecophilosophy," the "deep ecology movement," and Naess's "Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was "A philosopher." In fact, I had already conceived of myself as one. I viewed the

AUTHOR'S INTRODUCTION TO THE SERIES

writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that “What do I mean?” is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these “ordinary” people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally

AUTHOR'S INTRODUCTION TO THE SERIES

necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclina-

AUTHOR'S INTRODUCTION TO THE SERIES

tion very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it

AUTHOR'S INTRODUCTION TO THE SERIES

natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity,

AUTHOR'S INTRODUCTION TO THE SERIES

attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Author's Preface to This Edition

There are different philosophical traditions within higher education. When I became the full professor of philosophy at the University of Oslo in 1939, university regulations required teaching logic to all entering students. In my course I tried out propositional calculus with ample application to everyday problems. The students found the course amusing. I soon developed a course using a textbook that in translation is entitled *Communication and Argument*. About a hundred thousand students went through this course from 1941 to 1970, in small groups, ideally of fifteen students. Sometimes the groups degenerated into masses of more than twenty.

The aim of this highly practical course was to change nearly every university student's attitude toward communication and argument. The students came to feel that, strictly speaking, they never meant anything *very* definite when they were arguing, or when thinking in general. In everyday life it is unnecessary and even harmful to search for maximum preciseness. At the university level every student should know what it takes to be fairly precise. Sometimes a high level of *definiteness of intention* is required for some purposes.

Some colleagues and parents were highly critical of this course. One year, when a new university president was being elected, a professor announced that the election was a vote for or against my logic course.

When I read the text today, it is easy to understand the course's hidden dynamite: the teachers and students were supposed to use examples from the political, social, or ethical debates raging in the newspapers, or among faculty and students. The more emotional the subject was, the better. Each student was supposed to be confronted with his or her own confusions. This can be threatening to established thinking.

When asked whether he thought he meant something completely un-

AUTHOR'S PREFACE TO THIS EDITION

ambiguous and precise when he wrote or said that he had *proved* something, the world-famous mathematical logician Thoralf Skolem, after some hesitation, and to my disappointment, answered yes. As I understand it, there is uncertainty about what *exactly* means in the abysmal debate on the fundamentals of proof theory.

The English translation of *Communication and Argument* is somewhat watered down. The original Norwegian book—complete with exercises—is the only textbook that I regret was not used more extensively, say, by a thousand times as many students, that is, a hundred million.

The last chapter is an application of the ethics of nonviolence in discussions and controversies. The title “Effective Discussion” is somewhat misleading. It was only under pressure that I did not call the rules Gandhian. At every moment we have to treat an opponent in a debate as an inviolable, sovereign person. Whatever his or her behavior, misquotations, insinuations, attitude of contempt, one should remain unruffled and not deviate from the theme of the discussion. Against this it was objected that debates must be amusing or dramatic because, otherwise, very few are willing, or even able, to concentrate for more than a few moments. Actually, at public meetings the students following these rules did not win debates. They tended to be serene and dull, but that is *not* required. One can make jokes and do amusing things, but not in a way that might mislead and thereby influence the argumentation. This is very difficult! Training is, of course, necessary. They did not get that in my course. On at least one occasion the result was deplorable: A famous poet and actor attacked science in a most witty and brilliant way. The thousand listeners, all students who had taken the course, enjoyed the performance, but they felt and were helpless in the ensuing debate. Therefore, the actor “won.”

In the West there is talk about “the intelligentsia” as a special layer of a modern society. Through hundreds of years, the French were seen as leaders of intelligent spiritual communication. When I had the opportunity to *influence* all newly enrolled Norwegian university students through the required logic course, I decided to give a course in the *practice* of communication. It was given at a sufficiently high level to match the ideals of a minority, and so I focused on communication in social and spiritual *conflicts*. The text was meant to assist the students in discovering good examples of communication in situations of conflict. In conflicts it is normal to depict opponents as stupid and satanic, using all kinds of tricks. However, there

AUTHOR'S PREFACE TO THIS EDITION

are also misunderstandings due to vagueness, ambiguity, use of slogans as if they were arguments, and so on. This book (SWAN VII) outlines practical standards of goals for Gandhian communication. A new chapter outlines some topics of the hermeneutic movement.

The empirical semantics in this book is used in everything I write, and especially in articles on the deep ecology movement. This explains my good relations with theorists of social ecology and Third World authors, who feel that the West pressures them on ecological policies. North/South debates need the ethics of communication and argument described herein.

The *Times Literary Supplement* said of *Communication and Argument*: "Its main purpose is well defined: to teach people in a democratic society to think clearly, and above all, responsibly. Its six chapters are concerned with interpretation, precision and definition, analytic and synthetic sentences, agreement and disagreement, *pro-et-contra* and *pro-aut-contra* arguments and the factors contributing to effective discussion. Probably no philosopher or sociologist now living could peruse this simple manual without learning something from it."

Arne Naess

2004

Author's Foreword to the First Edition

Language is used in many different ways and for many different purposes. It may even be “used” without any purpose at all, as when we exclaim unintentionally or become delirious. Generally, people use language to communicate, but by no means always: they also sing for their enjoyment, utter incantations for rain, indulge in polite chatter, and stall for time. Even when language serves purposes of communication, it can, at the same time, have an expressive and evocative function. Nevertheless, the most common uses of language are those in which it serves a straightforward, practical function of communication: we ask for or give information, explain, advise, warn, argue, agree, promise, persuade, preach, or pray. In all such uses, its main feature is something that can be found in any function of language to some degree: a so-called cognitive content. In this book, the primary concern is with those uses of language in which the cognitive content of an expression takes the form of an assertion, that is, when something or another is stated to be the case. The kind of communication in which these uses are central is sometimes called cognitive discourse.

The most obvious case of cognitive discourse is a straightforward assertion about something we can or could perceive to be the case. Less obvious, but clearly also belonging to cognitive discourse, are instances when people engage in abstract and theoretical speculations and their views are aired for public discussion and argument. In fact, whenever we say something and are ready to say something else in support of it, we speak in the “cognitive vein.” Thus, when John Stuart Mill claims that happiness is desirable because—and for him it is a *reason*—men desire only happiness, his statement belongs to cognitive discourse.

The concern here is not with knowledge, truth, and validity as such—it is not with how we should analyze statements that someone knows (e.g., that gooseberries grow on bushes, that two and two are four, or that happi-

AUTHOR'S FOREWORD TO THE FIRST EDITION

ness is desirable), nor with what is meant by saying that such things are true or false. The concern is rather with the more immediate problem of identifying what people—including ourselves—mean when they say things that are in principle open to argument. The problem is a practical one of interpretation, dealing with difficulties arising from the fact that one word sequence can have more than one meaning and that a number of different word sequences can have the same meaning.

It may be helpful to note in passing that the question of interpretation does not arise only in regard to the cognitive content of expressions, as I have roughly defined it above; whenever words are uttered, another question of how to interpret what we hear may arise. When someone swears, is this a genuine reaction or is it only an affectation, or perhaps a rehearsal of some kind? In any use of language, there can arise the question of how (or even whether) a given utterance is meant; but this question of “how” differs from the question of “what.” When we ask ourselves, “What does he mean?,” we are not wondering how we are to treat what he says but rather what precisely it is that he is saying, regardless of whether he says it sincerely, insincerely, or even unconsciously.

I

Interpretation

Grasping What Others Mean

In the normal course of daily life, and at least within our own group, we make ourselves more or less understood. This is evident from the way people behave and is an essential part of the normality of daily life. Even if the people we talk to have not shared some of our own experiences, they can understand us when we describe them. A student who exclaims “I can’t face the thought of the exams” can be quite sure that at least his friends will grasp fairly well what he means, whether or not they, too, feel — or have ever felt — the way he does about taking examinations.

That serious misunderstandings are usually avoided in everyday life is because language is rather like a set of games, which we come to learn in common with other players. However, it is also because fairly stable patterns of events constantly repeat themselves and so become recognizable occasions for using certain expressions. Since John Doe regularly comes on the eight o’clock train in the evening, when one of his friends says to another that he’ll be here shortly after eight o’clock, there’s little chance that the latter will be misled into thinking that John will arrive shortly after eight in the morning. In a whole host of similar cases in everyday life, strict accuracy is not required — but, of course, sometimes it is. Because we can so often get along without it, when exactness *is* called for, we are often too little prepared for it, and this is when misunderstandings often arise.

That the meaning of an expression is fairly clearly delimited on one occasion does not prevent that same expression from expressing something quite different in another context. An expression’s meaning always depends in part on its relationship to other expressions and events, in other words, on its context. When considering an expression’s context, we must include its *linguistic* context — the area or level of discourse, written or spoken — as

INTERPRETATION

well as its *nonlinguistic* context—the kind of situation in which it is used. A textbook, for example, is designed for a special context in that it has a certain standard of mental development and level of knowledge in view. The author knows his readers and tailors his expressions to their requirements. Outside the limits of this audience, his words must be expected to give rise to more frequent and more serious misunderstandings of his meaning.

Of course, the fact that the same words uttered in one context can have a different meaning in another does not itself generate misunderstanding. When this occurs in the form of simple ambiguity—a typical source of comic-strip humor—misunderstanding usually presents little practical difficulty. For example, someone says, “Stanislavsky made some interesting comments on the stage.” On being asked “What about?,” he replies, “I told you—about the stage,” and this eliminates any confusion.

Unfortunately, ambiguities and difficulties of interpretation that have considerable theoretical and practical consequences can also occur. For example, ambiguities may arise because of subtle modifications in a situation—perhaps a sudden tension when someone enters the room, plainly felt but hard to describe—or difficulties may arise from attributing distinct meanings to the utterances of another person when he has nothing so distinct in mind. Similar problems arise in one’s own utterances, due perhaps to an inability to think about one thing consistently, or to think clearly enough in a situation that requires unusual sensibility or intelligence. One can think of many such cases of significant ambiguity.

When arguing logically, whether in open debate or in presenting a scientific thesis, we assume that our words have a well-delimited meaning and that any latent ambiguities are easily recognizable and harmless. Any application of logic can therefore be said to presuppose a *theory of interpretation*. The type of word sequences in which logic plays a special role are of the form in which one or more sentences can express a thought or an opinion. Such word sequences express something that can be true or false. Since we sometimes convey thoughts by expressions that are not grammatically proper sentences, it would be better to make use of the wider term *expression*. Instances of expressions include “The Earth is round,” “The Earth is flat,” “He who laughs last laughs longest,” and occasionally even single words. (When one man looks another straight in the face and says “Idiot!,” he usually means “You are an idiot!”) We will use the term *statements* to refer to the *ideas* or *thought-content* an expression expresses. “The Earth is flat,”

“La terre est plat,” and “Jorden er flat” are three different expressions that express the same statement, the statement that the Earth is flat.

The question of what a statement “really is” leads to difficult philosophical problems that this introductory work will not consider. All that is needed here is to grasp the importance of the distinction between a word sequence such as “The Earth is flat” and what this word sequence expresses in terms of thought-content for speakers of English. That there is a distinction is obvious from the fact that different expressions can express the same statement and that the same expression can — according to context — express different statements.

A sentence that (sometimes or always) expresses a statement can be said to *function* as an assertion. Of course, the same expression can also have other, accompanying functions. The sentence “An anonymous phone call says there is a timebomb under this house set to go off at four o’clock” not only asserts something but also invites an immediate response. At one minute before four o’clock, it might be appropriate just to shout “Bomb!” Yet even this patently signal-oriented expression has an asserting function, although one that is less clearly defined. In fact, the signal effect that a word has depends on its functioning in some part as an assertion. Whether a signal function, an assertion function, or any other kind of function is operative depends on the listener’s grasp of the situation in which the expression occurs. An actor who discovers a fire behind the scenes of a stage play may shout “Fire!,” but if he is a comedian, the audience may only laugh and clap, the more so the greater his expressions of anxiety and despair. They do not grasp the intended function of the word *fire*.

Expressions are made from words or collections of words; this is not so for statements. A translation of a proverb from one language into another need not employ the same number or even the same grammatical kind of words as the original in order for the content — the idea expressed — to be the same. Although our purposes in this book do not require us to go further into this point, it is important for the reader to be aware that the connection between an idea and the words used to express that idea is a complicated one and less obvious than often assumed. For example, the expression “The Earth is round” is English, but the statement our English speaker conveys with it is not restricted to English or to any other language.

Besides the difficult and not altogether clear distinction between a statement and the words or phrases used to express it, we have to distinguish be-

INTERPRETATION

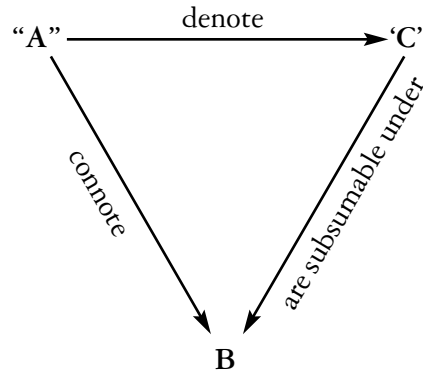


Figure 1. Relationships among expressions (“A”), statements (‘C’), and states of affairs (B).

tween a statement and the state of affairs it refers to or its “reference.” “The Earth is flat” expresses a statement that most of us deny. The proposition, we would say, is false. The state of affairs that the expression claims to exist *does not exist*; the facts contradict what is alleged, and the expression therefore fails to correspond with reality. The essential difference among an expression, a statement, and a state of affairs can be described briefly. We make and try to convey *statements* by means of *expressions*. (A recurring question throughout this book will be how to form expressions that best convey well-defined thoughts.) A statement can be true or false, tenable or untenable, valid or invalid, depending on the state of affairs it refers to. The threefold distinction among expression, statement, and state of affairs can be represented in the triangle above that shows the relationships among “A,” B, and ‘C’ entities (figure 1).

Expressions, which are created with words, terms, or sentences, are referred to as “A” entities. They express something, namely ‘C’ entities, which refer to statements—thought-contents, ideas, or concepts. While words and terms *sometimes* express statements, expressions—in our use of the term—*always* express statements. The particular states of affairs that are referred to or suggested by expressions are B entities.

This book focuses on the distinction between “A” entities and ‘C’ entities; the main concern is to explore this distinction and develop a systematic terminology to account for it. The distinction between double and single quotation marks helps to distinguish expressions from the ideas of

concepts they refer to. The distinction itself is of great practical importance in all areas of communication and is essential to a grasp of semantics. To understand what people say or write, we must identify certain 'C' entities, but we can only do so on the basis of the expressions provided, that is, by means of the "A" entities made available to us. Let us now consider some implications of this.

Suppose you read an excerpt from an obituary that says, "Just recently he suffered much. He was chairman of the Philosophical Association. . . ." Taken separately, the two expressions have nothing particularly odd about them, but combined they suggest, curiously, that the second statement is intended to provide a causal explanation for the first statement. We tend to feel drawn toward interpreting the excerpt incorrectly as, "Just recently he has suffered much; you see, he was chairman. . . ." But usually when we read an expression in conjunction with other expressions, the tendency is not, as here, in the direction of misunderstanding. On the contrary, because such a conjunction of expressions fills in some of the context, it should lead to an increase of explicitness and hence a decrease in the risk of misinterpreting what we read or hear. If we are given the context in which an expression occurs, the expression acquires a more sharply delimited meaning than if we hear it in a complete contextual vacuum. We are much more liable to misunderstand *isolated* sentences, and this is naturally a contributing cause of considerable irrelevant discussion. However, unless each constituent expression of any conjunction of expressions has a sufficiently clear sense of its own, it is difficult to form or convey with such a word sequence any reasonably complex and definite meaning. Therefore, each sentence must on its own satisfy certain requirements of preciseness and unambiguity. After all, we have to read sentences one at a time; an author cannot expect us to wait until we have read the last page of his book before we understand the sentences on the first page. Each expression contributes to the whole of which it is a part and can do so only insofar as it is itself capable of having a clear sense. In what follows, we will be concerned mainly with the interpretation of isolated expressions.

The development of science and technology has made a number of new demands on our linguistic usage. Scientists spend a good deal of their time polishing the language that is their tool, both for precise thinking and for effective communication of their results. Thus, when people talk about

INTERPRETATION

“correct usage,” we must remember that, although the ordinary rules are fitted to everyday requirements for preciseness, they are not adequate when it comes to determining the precise meanings of expressions resulting from prolonged and careful reflection. Besides, growth in understanding and articulateness is linked with the ability of our expressions to acquire new meanings, to bring themselves under new rules.

Linguistic usage, then, must vary in ways that we can hardly expect even experts in usage to keep up with. Different people mean different things by the same expression or the same thing by different expressions, without doing any violence to the English language. Even such a simple sentence as “Mount Whitecap is higher than Mount Baretop” could have at least two distinct meanings: that expressed by “Mount Whitecap’s highest fixed point is higher than Mount Baretop” or that expressed by “Mount Whitecap’s highest point, snowcap, or rock is higher than Mount Baretop’s.” An English speaker, on hearing the expression “Mount Whitecap is higher than Mount Baretop,” might take it to mean either of these — or perhaps neither of them but some third possibility entirely. Even more likely, he may not have considered the possibility of a distinction between the two assertions, not having considered the subtle issues of measuring heights. In such a case, we certainly cannot determine the meaning by appealing to the correct use of the sentence concerned. Linguistic expressions, whether sentences, phrases, or words, are far too accommodating to permit any exact determinations of their “correct” usage. The openness in the rules mentioned above allows words and sentences to have perpetual variability in meaning, something that permits them to be both vehicles for advances in understanding and sensibility, and cloaks for ambivalence and ignorance. If we were to say that the use of correct English presupposed crystal-clear thinking, then we must make do with incorrect English, adopt some other language, or else give up speaking altogether.

The theory of interpretation is concerned first and foremost with clarifying how the same word sequence can express different meanings and how one and the same meaning can be expressed by different sequences of words. It is also concerned with drawing consequences from these clarifications and with evolving a suitable terminology for effective and precise discussion of these issues. As such, therefore, it is not directly concerned with whether an expression is used correctly or validly. Indirectly, however, the

truth or falsity of an assertion can play a significant part in determining interpretations. If someone says “I saw Eternity the other night,” and I know he is neither mad nor a mystic, I would immediately reject one literal interpretation of the expression. Instead of assuming that someone is claiming he saw Eternity, as opposed to Temporality, I would probably assume that he is reciting the first line of Vaughan’s poem or else would guess that “Eternity” is the title of a film. My own assumption as to what can be reasonably asserted to be true and the range of possible interpretations that I can envisage determine in part what I take to be the reasonable choice of interpretation.

When we suspect that an expression we use might not be understood as we intend it to be, we often resort to alternative expressions that mean the same or roughly the same, hoping that with these we can help the listener identify our meaning. Expressions that convey the same statement will be called “equivalent expressions.”

If we want to describe something or present an argument, our expressions must be able to convey the relevant cognitive content. But this cognitive content can be conveyed, more or less effectively, by different expressions that, in a wider sense, cannot be said to have the same meaning. Thus, we must distinguish *cognitive* from other kinds of equivalence. An extreme case illustrates the distinction. When Shakespeare’s Coriolanus addresses his mother as “honored mold, wherein this trunk was framed,” the expression “honored mold” could conceivably have meant for him what most of us mean by the more conventional and handier “dear Mother.” That is, insofar as both expressions can be intended to mean the same, or to perform the same role, we could say that they *can* have the same cognitive import. But clearly, in a wider sense of meaning, they would not strictly mean the same. The former version, apart from being at once more vivid and formal, has a broader and more elaborate conceptual content. In a way, it means more than is meant by a person using it to mean the same as “dear Mother,” and it conveys this double meaning whether or not the author has this wider sense in mind. When we speak of cognitive equivalence, therefore, as opposed to a wider or *total* equivalence between expressions, we mean, roughly, that there is some central significance that expressions share and that, at least in some contexts, makes them interchangeable regardless of differences in suggestiveness, style, or sound.

INTERPRETATION

When dealing with expressions, I will speak generally of *statement equivalence* (or nonequivalence) as opposed to equivalence (or nonequivalence) of *cognitive meaning*. The former is a special case of the latter, since cognitive content appears in forms other than that of assertion. In what follows, “equivalence” means the same as “statement equivalence.”

If we are called on to commit ourselves to the truth or falsity of an expression and we are not clear as to what the expression means, there are a number of steps we can take. Perhaps the best is to evaluate every one of the interpretations we are able to ascribe to the expression in the given context. To do this, we must interpret the original expression in all the different ways in which it could plausibly be rendered more precisely. I refer to this process of postulating more precise renderings as “precization.” Some precizations of the original may be tenable, others not. It is thus especially important to be able to distinguish those interpretations we would agree with from those we would disagree with; otherwise we will never be sure whether agreement or disagreement exists, since to know this we must already know what it is we agreed or disagreed on.

In most cases, however, we have neither time nor opportunity to engage in this process of listing all the different interpretations. In such cases, we can resort to the expedient of qualifying our agreement or disagreement by stating how we interpret the expression in question. An example of such a qualification follows: “If, when he says ‘Routine makes one stupid,’ he is referring to the tendency of routine to make most of one’s actions automatic, then I agree.” This procedure saves time, but leaves a certain amount to individual knowledge or intuition if we are to be reasonably sure the interpretation we assess is also the speaker’s.

A theory of interpretation has to account for our ordinary ideas of exactness, accuracy, and preciseness. If it does not, it is hopeless to try to put the theory into practice. The theory must therefore establish its explanatory concepts, first giving definite meanings to expressions such as “interpretation,” “precization,” and “real disagreement.” In everyday language, these expressions have no clearly delimited meanings, but for the purposes of my theory, we must give them technical meanings. These, of course, will correspond only to a certain extent to the ways in which the expressions are used ordinarily. Since a grasp of the technical meanings of these expressions is essential to an understanding of what follows, we shall pay special attention to our terminology in the next three sections.

Equivalence Between Expressions

Many differences between expressions have little or nothing to do with the cognitive content the expressions may share. The words *automobile* and *car*, for example, express no cognitive distinction, although the words themselves are quite different. There are times, however, when it can be difficult to sift out differences that are purely verbal and not cognitive—as in the case of pure synonyms—from those that are cognitive as well as verbal. Furthermore, when there are cognitive differences, it is often difficult to specify the extent to which the cognitive contents of the given expressions differ.

Throughout this book, *T* and *U* will symbolize expressions, *P* a person or group of persons, and *S* a situation (or a situation type, i.e., a determinate pattern of events or state of affairs, including the linguistic and nonlinguistic context, which are not necessarily restricted to one occasion) for which *T* and *U* can be linguistically appropriate expressions.

Let us consider the ways in which just two expressions can be equivalent (statement equivalent). The following six cases of equivalence between *T* and *U* can be distinguished:

1. Whatever the situation, *T* and *U* express the same for anyone competent in the language.
2. For at least one situation, *T* and *U* express the same for everyone.
3. For each person, *T* and *U* express the same for at least one situation.
4. For some people, *T* and *U* express the same for all situations.
5. For each situation, *T* and *U* express the same for at least one person.
6. For at least one situation, *T* and *U* express the same for some people.

These six cases represent ways or degrees in which *T* and *U* can be regarded as expressing the same statement (being equivalent expressions). The logical relationships among 1 through 6 can be depicted in a diagram with arrows pointing to the respective logical consequences of each case (figure 2). The seventh case—in which *T* and *U* do not express the same thing for any situation—occurs only when there is no equivalence. A helpful exercise at this point is to try to state the six cases of nonequivalence of expressions corresponding to 1 through 6.

Here are some examples of the six ways in which expressions *can* be equivalent. The example “Mount Whitecap is higher than Mount Baretop”

INTERPRETATION

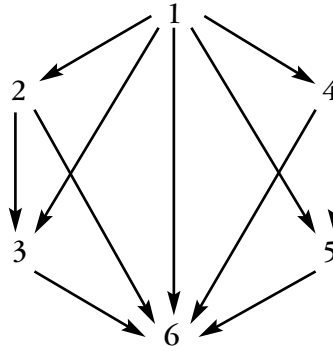


Figure 2. Logical relationship of the six forms of equivalence for expressions T and U .

(T) and “Mount Baretop is lower than Mount Whitecap” (U) can provide us with an instance of case 1. For all speakers of English, these two expressions probably amount to the same statement—but only probably, because whether or not they do can be decided only by a necessarily incomplete empirical investigation. Another significant factor here is that the way people use the word *same* is itself by no means clear and unambiguous. For example, do we say that T and U here express the same meaning, even though “is higher than” occurs in T and “is lower than” in U ? Instead, might we argue that they are different ways of saying the same thing, or perhaps that they express different but equivalent *statements*? Further reflections on this issue are left to the reader.

An instance of case 2, in which for at least one situation T and U represent equivalent expressions for everyone, can be provided by the pair of expressions “Baldy is higher than Snowy” and “Mount Baretop is higher than Mount Whitecap.” In some contexts, these expressions may mean the same: for example, in a discussion between two climbers who know the peaks in question and are familiar with the shorter names for them. But unless one is familiar with these “nicknames,” one will merely be baffled and probably assume that they express two quite different statements.

An example of case 4, in which two expressions express the same (whatever the situation) but not for everyone, might be: “He is twenty years old” and “He has reached his twentieth birthday, but not his twenty-first” (some

might assess a person's age by his nearest birthday). Examples of case 6, in which two expressions are equivalent for only some people and for at least one situation, are easy to find; for instance, "The election will be next month" and "The election of the chairperson will be next month."

These six cases of equivalence provide a basis for precizing and explicating the following forms of expression: "by *T* is meant *U*," "in English, *T* means the same as *U*," "*T* or, in other words, *U*," and "strictly speaking, *T* does not mean the same as *U*." Not infrequently one comes across rash and imprecise pronouncements about which expressions do and do not mean the same thing. Unfortunately, this is often the case in literary discussions in which preciseness should be of the essence. This is exactly where one should ask the following questions: The same total meaning or the same cognitive meaning? The same for whom? In what situation? Correct according to whose standards?

Usually we find that the relatively less determinate notion of 'total meaning equivalence' serves only special interests and therefore concerns only some people in some situations. We should bear in mind how often we would replace unreflectively "When one says *T*, one means *U*" with "When I say *T*, I mean *U*." We presume all too commonly and rashly that what applies in our own case, or in that of some limited group, is also true generally.

When we say that two expressions, *T* and *U*, are equivalent for someone, it is not necessary to imply that some person has actually used *T* and *U*; it is sufficient that *T* and *U* would be shown to be equivalent if and when the occasion arose for that person's use of these expressions. If we have yet to hear him using them, we can still make reasonable inferences from his language habits and other factors about what his linguistic future might show us.

However, there is more involved here than merely asking a person, or ourselves, whether two given expressions are equivalent for that person or for us. What we need is a precise terminology and also an ability to compare the expressions from all possible angles. Without such instruments and techniques, the answers we give will tend to confuse the issue rather than clarify it. Consider, for example, the expressions "I ask of myself only what I ask of others" and "I ask of others only what I ask of myself." Can you say straight off, or conclusively, that they mean or do not mean the same to you?

When Are Expressions Equivalent?

We require suitable aids to improve our ability to be clear about what we want to express by some word sequence. Help is also needed in our search for a better way to express what we want to say. Some assistance may be provided by the criterion of *nonequivalence*, which is introduced in this section.

We can think of a person *P* who feels no difficulties in understanding *T* and *U* and for whom, so far, nothing has caused him to doubt what content they express. Nevertheless, the question of nonequivalence can always arise for *P* himself or for another person *Q* who wants to know exactly how *P* interprets *T* and *U*. Do these expressions, or do they not, express the same thought for *P* as he understands them in a specific situation *S*? Suppose we suspect they do. If *P* takes both what *T* expresses and what *U* expresses (for him in *S*) to be untenable, or takes both to be tenable, we may think this shows that *T* and *U* express the same assertion for him. Person *P* might come to the same conclusion. A decision on this basis, however, is unwarranted. The mere tenability of *T* and *U* cannot determine their equivalence. What we need is a concept of 'equivalence of expression' such that not all tenable assertions will be mutually equivalent. One way of obtaining this is to imagine a state of affairs in which we take *T* and *U*, in a particular situation *S*, to say something that contradicts what we believe them to say. By thinking of other possibilities and asking ourselves whether *T* and *U* in the imagined circumstances will still be tenable (or untenable), we provide ourselves with a better basis for judging whether the outlines of the content of the assertion we convey with *T* differ from those for *U*. If we find at least one possible state of affairs such that we will accept *T* as tenable and reject *U* as untenable, or vice versa, we will take this as indicating that *T* and *U* express different meaning-contents for us.

The criterion we want can be expressed as follows:

Definition of Nonequivalent Expressions. For *P* in any situation *S*, *T* and *U* are nonequivalent expressions if and only if a state of affairs can be envisaged such that *P* will accept *T* as tenable and reject *U* as untenable, or vice versa.

The states of affairs here are those that help shape what *T* and *U* express for *P* in *S*, not any states of affairs whatsoever. We examine the interpreta-

tion we have at the moment by looking for alternative expressions, not other possible interpretations of this expression considered *in abstracto*.

Let us consider a person *P* who, in a discussion about the heights of certain mountains, hears someone say, "Mount Whitecap is higher than Mount Baretop" (*T*) and another say, "Mount Whitecap is thirteen meters higher than Mount Baretop" (*U*). Perhaps *P* will think that both are true and thus 'truth-equivalent', but according to the criterion of nonequivalence, it is quite possible that *T* and *U* are nonequivalent for *P* in *S*. By envisaging changes in the heights of the mountains, *P* can come to realize that if, for example, Mount Whitecap is raised one hundred meters, *T* will be acceptable but *U* not so. In other words, *P* is able to envisage a state of affairs such that what one expression says will be true and what the other says, false. Hence, we conclude that however *T* and *U* occur in *S* (a discussion on the heights of these mountains), they will be nonequivalent for *P*.

Suppose now that someone had said, "Mount Baretop is lower than Mount Whitecap" (*V*). However one varies the mountains in one's imagination in this case, it is hard to hit upon a possible state of affairs that would make one take *V* differently from *T*—"Mount Whitecap is higher than Mount Baretop." The two expressions are, no doubt, equivalent for practically everyone in practically all situations.

As another example, take the sentences "Italians are dark" (*T*) and "All Italians are dark" (*U*). By thinking of all possible variations in the appearances of Italians, we can discover whether some appearances might be such that, if in fact Italians did look thus, we would then accept *T* and reject *U*, or vice versa. We "vary" the world and see in what possible worlds we would accept *T* and *U*. Thus, we may find we are prepared to accept *T* and reject *U* if 90 percent of Italians were dark and 10 percent fair. If this is our conclusion, then *T* asserts something less than *U*; *T* is not false even if there are some fair Italians, whereas *U* is only true if absolutely all Italians are dark. In that case, according to our criterion, *T* and *U* are nonequivalent. But one's understanding of *T* could be such that even if only 1 percent of Italians are dark, then *T* is false. Perhaps no possibility at all can be envisaged for accepting *T* and rejecting *U*; then *T* and *U* are not nonequivalent.

The importance of including in our criterion a reference to the situation *S* should be obvious, as should the reason why, when we use the criterion, we must envisage variations in the expression and its properties, not variations in the context in which the expression is given. We can mean dif-

INTERPRETATION

ferent things by the same utterance according to what kind of situation or context we express it in, even if, on some occasions, all meanings of T happen to be appropriate to the situation. But what we want to find by means of the criterion is the meaning (the equivalent expressions) for this particular situation, on this actual occasion of the expression's use.

Take another example:

$T \equiv$ Albumen coagulates in boiling water.

$U \equiv$ Albumen coagulates in water at 100° C.

At least for me, T and U would not express the same assertion in a scientific context. The statement that water boils at 100° C is true only if the atmospheric pressure is 760 mm of Hg. In cases in which the pressure varies, the assumption cannot hold. Consequently, I can think of possible reasons for denying what one expression says for me and affirming what the other says for me. This also applies to statements of the following form:

$T \equiv$ X is soluble in boiling water.

$U \equiv$ X is soluble in water at 100° C.

Water, we know, boils at temperatures well under 100° C if atmospheric pressure is low and well over if the pressure is high. Thus, the boiling point of water cannot be equated with any specific temperature such as 100° C. If X is something that dissolves in water at over 90° C, I will accept U but not T .

Of course, if X dissolves in boiling water whatever the temperature—for example, if X is surrounded by a film that bursts with the commotion stirred up by boiling water—then I would accept T . But it is conceivable to reject U at the same time, for example, if the water is heated to 120° C without boiling. If T occurs in a nonscientific context, however, I would not interpret it as above. I would take 760 mm of Hg to be implied by those who use expression T . In that case, T and U would be equivalent for me. In this example, therefore, I arrive at the following result: in situation S_1 (a scientific context), T and U are not equivalent for me, but in situation S_2 (a layman's context), they are equivalent for me.

Here is one more example:

$T \equiv X$ has a higher I.Q. than Y .

$U \equiv X$ is more intelligent than Y .

In some situations, for example, in a discussion among psychologists discussing intelligence quotients, $I(P)$ would understand U as a *less technical form* of T . I cannot then think of denying T and accepting U , or vice versa. In other situations, however, I might regard U as a less technical statement and might very well affirm one and deny the other. The sentences would then be equivalent for me in some but not all situations.

I introduced the criterion of nonequivalence to help us identify both the content of an expression and the different expressions that might express this content. *Criterion* in this context means a distinguishing mark — moreover, one with a practical application in that it enables us to decide whether or not something *is the case*. However, it would be well to note here that a consistent use of the criterion does not necessarily require us to retain the ordinary senses of the word “nonequivalent.” There may very well be cases in which pairs of sentences are deemed equivalent according to the criterion but not according to accepted usage. For the sake of simplicity, however, we assume that the criterion is used consistently even when it leads to deviations from ordinary usage. In formulating this criterion, therefore, we are specifying a definition of nonequivalence. Such a definition is what we call a “prescriptive” definition (for a discussion of prescriptive definitions, see chapter 2, pages 31–37).

Definition of Nonequivalence. We will take “Expression T in situation S , for person P , is nonequivalent to expression U in S for P ” to mean the same as “ P can conceive the possibility in S of affirming what one of the expressions expresses for him and rejecting what the other expresses for him.”

If two expressions are not nonequivalent, can we therefore say that they are equivalent? Ordinary usage would no doubt require us to answer in the affirmative. But this is not directly warranted by the definition itself. Recall that we have previously referred to our criterion as a “criterion of nonequivalence.” An example should make it clearer why.

Let T stand for “It snows or it does not snow” and U for “Hitler is dead or Hitler is not dead.” Given a situation in which these expressions occur, it

INTERPRETATION

is inconceivable that I would not accept both as valid, no matter how I vary the states of affairs they seem to say something about.

Following our criterion, I would conclude that the expressions in question are not nonequivalent. But if I were to say that insofar as they are not nonequivalent they are equivalent, I would infringe on the conventions of ordinary usage, for would anyone say that T and U express identical assertions, that is, that they are equivalent in the sense of saying the same thing? T has to do with snowy weather, U with Hitler's death. Take another example: if T stands for "No geometric bodies have extension" and U for "Some rectangles have only three sides," our verdict in all probability would be that T and U are not nonequivalent, yet not thereby equivalent. Having duly noted this complication, I can now introduce a definition of "equivalence" for two expressions T and U , on the condition that at least one of them can be considered valid if certain states of affairs hold, and not valid if certain others hold. The definition is only meant to apply if this condition is fulfilled.

Definition of Equivalent Expression. We take "Expression T in situation S for person P is equivalent to expression U in S for P " to mean the same as "Expression T in situation S for person P is not nonequivalent to expression U in S for P , and at least one of the two expressions can be thought by P to be valid if certain states of affairs hold and not valid if certain others hold."

Interpreting an Expression

It is very hard to read a sentence in one's native language without immediately giving it some interpretation. When one reads something, it is difficult, if not impossible, to confine oneself to registering only the shapes of the letters or words. Without special training, we fasten immediately onto the meaning or rather onto what we feel we understand or know to be what the words ordinarily signify. But there is no way of immediately recognizing that we have a *clear* understanding of what a sentence means, nor any way of guaranteeing that the understanding we have is the common or so-called correct one.

The way that we understand a word or a sentence is normally called "an interpretation." The fact that we use this noun, however, does not mean

that ways of understanding are accessible to observation in the way natural objects such as stones and books are accessible. We cannot compare different understandings, thoughts, or assertions directly; we can only try to indicate the difference in words and word sequences. This is the case not only when we try to make others grasp something but also when we ourselves try to grasp something. We can only proceed in a roundabout way by using different sentences. Instead of there being two distinct kinds of operations—producing a word sequence and giving an account of its meaning—we have to be content with producing two word sequences, together with the claim that the sequences have the same meaning.

Because the rules for the correct use of language are not (and never can become) exact enough to fix precisely what an expression is to mean, it is always possible to doubt what a person P means to express when he utters T in a situation S . To try to find expressions that might be equivalent to T for P in S , we can go over all the assertions we think P might have meant to express by means of T in S . We can also do the same when we want to consider every assertion that could conceivably be thought to be expressed by T , irrespective of who utters T and of the circumstances in which it occurs. We can imagine a variety of contexts for which T might be apt in different situations and for different people.

Definition of Interpretation (D_1). To say that an expression U is an interpretation of a different expression T is to say that there can be at least one person P and a situation S such that U can express the same assertion as T for P in S . Note that this definition comes under the last of our six cases of equivalence (see page 9).

Let us consider some comments that may assist in the further precization of the term “interpretation.” For two expressions to be characterized as different, they need only have nonidentical words or word sequences. Furthermore, the word “can” in the definition signifies that T and U need not necessarily have occurred as equivalent expressions. The sense of the definition can therefore also be rendered by the following: “It is practically conceivable that at least one person means the same by T and U in some situation.” We do not need to be able to specify the person or the situation; it is the *possibility* that counts. Perhaps the concept would have been more immediately clear to the reader if I had used the phrase “possible alternative

INTERPRETATION

expression for” instead of “interpretation of.” The point is that what makes an expression a possible alternative is that it is equivalent to the original expression for at least one person in some situation, and the term “interpretation” is chosen simply because it is shorter. As long as we keep the wording of the definition in mind, no misunderstanding should arise.

From D_1 it follows that T is always an interpretation of T and that if U is an interpretation of T , then T is an interpretation of U . But it does not follow that if U is an interpretation of T and V is an interpretation of U , then V is necessarily an interpretation of T . Different interpretations of an expression need not be interpretations of one another, even if there are some situations in which they are.

Since there are cases in which T and V are interpretations of U but not of each other — that is, counterexamples to the statement that if U is an interpretation of T and V an interpretation of U , then V must be an interpretation of T or vice versa — we should describe the relationship of interpretation in logical terminology as *intransitive*. It is also *symmetrical*, since if T is an interpretation of U then U is an interpretation of T , and *reflexive*, since all interpretations are interpretations of themselves.

In the following, I use T_0 to symbolize an expression that is to be interpreted and T_1, T_2, \dots, T_n to symbolize possible interpretations.

Frequently, we fail to catch on to what someone says or writes. In such cases, although we are not in a position to answer yes or no, agreed or disagreed, we can still reply with conditional sentences of the following kind: “If by T_0 is meant T_1 , then T_0 is acceptable (true or valid). But if by T_0 is meant T_2 , then T_0 is unacceptable (false or invalid). If by T_0 is meant T_3 , then . . . and so on.” For example, take T_0 to be “The constitutional law of 1814 denied Jews entry into Norway.” If by T_0 is meant that the constitutional law of 1814 denied upholders of the Mosaic Law entry into Norway, then T_0 is acceptable; that is how the constitutional law is interpreted. If, however, by T_0 is meant that the constitutional law of 1814 denied every Jewish person entry into Norway, then T_0 is unacceptable; according to the interpretation of the law, *baptized* Jews still had entry into the country.

Setting Forth Possible Interpretations

If we take a situation S as constant, we can set about finding interpretations for a given expression T in S by thinking of various speakers and listeners in

S. Alternatively, we can think of the speakers and listeners as constants and vary the situation; or we can take both the people and the situation as constants and ask ourselves what expressions could convey the same as *T*. All three of these are ways of making interpretations in the sense introduced previously.

Simply from what D_1 says, one might think that it was comparatively easy to set up long lists of different interpretations of an expression. If *S* or *P* are taken as constants, however, it may not be so easy. The more fully one specifies a situation and a linguistic context, the fewer the possibilities of interpretation. Even so, there always seem to be some alternatives. For a given person in a given situation, there still seem to be a number of different ways of conveying one and the same assertion, that is, there usually exist a number of different, but equivalent, expressions.

When *P* is a close acquaintance and he is talking about something we have often heard him talk about, and the topic is also one in which misunderstanding can easily be detected, our interpretation emerges in part from our own special knowledge of *P*. As a special case, we can even suppose that we, ourselves, are *P*. But in the absence of such exceptional conditions, where no such special knowledge can be drawn on, our interpretations depend more on a common experience of the use of language. Even when we interpret an expression in a definite context we are drawing on our experience of many other contexts.

When trying to interpret a given expression *T*, we often have to consider *T* in a variety of contexts. What kind of discussion could *T* arise in? In a newspaper or in a technical or political journal, or some other source? What are the consequences of denying or accepting *T*? If two close friends of mine do not agree about *T*, what misunderstandings might exist that could explain this disagreement? If *T* occurs in a newspaper that leans toward one political party, how should we expect a newspaper that leans toward another party to interpret the expression? The examples are endless.

Reasonable Interpretations

When we have some information about the context in which an expression *T* occurs, we are able to distinguish between reasonable and unreasonable interpretations of *T*. For example, the expression “*U* is a *reasonable interpretation* of *T* when *T* occurs in *S*” means the same as “When *T* occurs in *S*, *T*

INTERPRETATION

usually means the same as U .” The equivalence between T and U in S implies that U is an interpretation of T according to D_1 . In addition to this, U will be a ‘common’ interpretation, that is, the people or groups for whom T and U are equivalent will not be too few or too specialized.

By “ T_1 is a correct interpretation of T_0 ,” one often means that T_1 expresses the statement that T_0 serves to express in the context in which T_0 occurs. We must also note here that T_1 may well be given alternative interpretations by different people. Therefore, a better rendering, with the reference to the person made explicit, would be “ T_1 , as I (P_1) interpret T_1 , is a correct interpretation of T_0 ” and “ T_1 expresses, according to my (P_1)’s interpretation, the same assertion as T_0 serves to express.” It is easy to forget this reference to a person when using an expression of the kind “ T_1 is a *correct interpretation* of T_0 .” One should remember, however, that quite different expressions T_2, T_3, \dots, T_n , that are also “correct” for P_2, P_3, \dots, P_n , and that these other expressions can be quite *incorrect* according to P_1 ’s understanding, that is, for him they do not mean at all the same as T_0 .

The expression “ T_1 is a correct interpretation of T_0 ” may be misleading in another way. “ T_1 is a correct interpretation” might appear to be exchangeable with “ T_1 expresses an acceptable assertion.” However, T_1 can very well be a correct interpretation even though it does not express an acceptable assertion. For example, if T_0 is “Richmond Hill is higher than Mount Everest” and T_1 is “Richmond Hill, not counting the depth of snow that may lie on it, is higher than Mount Everest,” T_1 will, for me, be a correct interpretation of T_0 even though I would not accept it. Conversely, a very unreasonable interpretation may express an assertion that one does accept.

Interpretation of Expressions Used as Terms

Examples of terms include “Caesar,” “pencil,” “Constitution,” “to the west of,” “the highest volcano in Denmark,” and “being at a loss for words.” “Constitution” denotes the constitution of, say, the United States or Great Britain; the constitution itself is not a term. “The highest volcano in Denmark” is a term that has no denotation since there are no volcanoes in Denmark, but the term still expresses something.

A term “ a ” is said to denote something if a exists. Otherwise it doesn’t denote anything. Provided only that “ a ” has a sufficiently clear sense, “ a ” expresses something, whether or not a exists. “Perpetual motion,” and “pri-

primordial language” are terms that probably denote nothing, but they can express things that we are able to think about even if they do not exist. If in fact there once existed an original language from which language as we now know it has evolved, then that language is what the term “primordial language” denotes. A term “*a*” can be said to denote something so long as *a* existed or will exist, even if *a* does not exist at the time we are using the term.

With regard to the parts of sentences that cannot themselves be construed as sentences, our interest here is mainly in terms. Logically, the crucial difference between a term and a sentence is that a term cannot by itself express a statement. To state something, you have to say something about something, and for this you need a sentence. Separately, the terms “Camembert” and “smells” do not express a statement, nor must they together since “Camembert smells” may still be only a term and not a sentence. Together, however, they can be construed as a sentence, although of course they need not be.

In examining the possible interpretations of an expression, there is usually a comparatively determinate part of it—one or more words—that suggests the most significant candidates for interpretations of the expression as a whole. In such cases, it may be helpful to examine separately the different meanings that this determinate part can have, first as part of different expressions and second as part of the expression in which it appears.

It is essential to be clear about our purposes: is it to interpret terms or expressions by themselves or as components in sentences? Many otherwise reasonable interpretations of a word can be ruled out immediately once we are given the rest of the sentence in which the word occurs. However, setting a word in a sentence may just as easily call to mind new interpretations. Note that when interpreting a sentence, it is a common mistake to interpret the parts of the sentence as though they were in fact separate.

In the following definition, the interpretation of terms occurring in expressions is restricted to the interpretation of them as they occur *in* expressions, that is, to the interpretation of the expressions themselves.

Definition of terms that are interpretations of each other (D_2). That one term “*a*” is an interpretation of another term “*b*” in an expression *T* means that there is an expression *U* that is an interpretation of *T* and which is made by substituting “*b*” for “*a*” in *T*. For example, “popular rule” can be an interpretation of “democracy” because the sentence “Our

INTERPRETATION

country has popular rule” is an interpretation of “Our country has a democracy.”

Many terms can be given a wide range of meanings only if one thinks of them in isolation from context. The occurrence of a term in an expression limits its range of meanings and thus also the danger of confusion. If a term “*b*” does have a variety of meanings, it does not follow that the expressions for these will be different interpretations of “*b*” when “*b*” occurs in a given sentence. If someone says “He’s a shark” or “Only a shark would do that,” naturally we do not interpret “shark” in the zoological sense. Similarly, with the term “motive power” in the expression “Egoism is man’s strongest motive power,” we should not take it to mean the kind of power that is used to propel vehicles.

Depth of Intended Meaning

I have used the term “misunderstand” in rather a wide sense. Our understanding of someone’s thoughts can be more or less deep. Still, it would be wrong to envisage a maximum depth that can be plumbed. Usually the best we can do is, by systematically questioning a person, to discover where the similarity between our own and his understanding begins and ends. In this way, we can at least discover various points at the boundaries between our respective understandings. Accuracy must remain a matter of approximation. In practice, we find that we are less concerned with establishing as exact an understanding as possible than with eliminating all the possible unfortunate misunderstandings we think may arise. Then again, because our mental capacities are partially dependent on memory, our desire to arrive at a full grasp of the significance of some statement is often frustrated by an inability to recall something. In school and in college, we are bombarded with a great number of expressions that our teachers assign much meaning to, but as students we may do little more than learn the sound of them. We make few attempts to understand their full significance, and even if we do try, perhaps our capacity to do so is still too weak. Possibly this is less the case in mathematics, where one manages to clarify what one hears by working out examples and “seeing” how they work, but in the less exact and more discursive sciences, we accumulate a great number of ab-

abstract expressions that cannot be elucidated in the same way. Our understanding of these expressions often remains inadequate and superficial.

A sentence such as “The world is surrounded by a gravitational field” can mean very little or a great deal. What it means to a physicist, a high school student, and a seventy-year-old former university student will vary in comprehensiveness as well as in substance. The physicist may have reflected for years on the question of gravitational fields, and he will be at home in the whole complex of considerations that, at his level of understanding, go into this sentence. Variations in level of knowledge, interest, and intelligence inevitably result in variations in the depth and clarity of a person’s grasp of what he reads or hears.

To measure your own level of understanding a sentence, try the following test: simply read the following sentence without reflecting on it. “There was a 30 percent failure in the philosophy exam last summer.” Now answer the following series of questions: do you understand by T_0 the same as you understand by T_1 , that “There was a 30 percent failure in the philosophy exam last summer among those who signed up to take it”? If you can honestly answer either yes or no, then you can give yourself a point for depth of understanding. If your answer was yes, then you can go on to answer this question: do you count as failing those who signed up to take the exam but did not attend it? If you can honestly answer yes, then give yourself another point. In that case, however, your use of language must be regarded as extraordinary—not the least by those who might have been prevented by sickness from attending the exam and who would hardly care to be described as having failed. If you answered no, you also get another point, although here you will come up against some difficulties that we must leave aside for the present. Next, answer the following question: do you understand by T_0 what you also understand by T_2 , that “There was a 30 percent failure in the philosophy exam last summer among those who attended the exam”? If your answer is an honest yes or no, you get another point. If not, you get one deducted; by not being able to answer either yes or no, your understanding of T_0 must be regarded to that extent as imprecise or vague. (Of course, it could be that you considered T_0 to be ambiguous, but for simplicity’s sake, we shall avoid such complications for the moment.) If you answer yes to that question, then answer this one: Do you count as failures those who attended the exam but withdrew as soon as they saw the exam

INTERPRETATION

paper? Other examples can invite a far greater number of interesting possibilities for interpretation and a correspondingly longer list of questions. Here at least we get a firsthand glimpse of the distinction between higher and lower levels of understanding an expression.

Finally, consider the following short list of differences in interpretation:

$T_0 \equiv$ Male students perform better than female students on the philosophy exam.

$T_1 \equiv$ Male students, on average, get higher marks on the philosophy exam.

$T_2 \equiv$ A higher percentage of male students pass the philosophy exam.

$T_3 \equiv$ The percentage of female students who fail is greater than that of male students who fail.

$T_4 \equiv$ Men perform better than women on the philosophy exam.

II

Precization and Definition

Language as an Instrument for Precization

I have already mentioned that everyday language habits are in many ways inadequate when it comes to conveying every inflection and gradation of meaning. We find that just as special techniques are needed in other fields of technology, we also need special tools and training to facilitate clear thinking and efficient communication. The approach discussed in this book is based on ordinary language, but in important respects, we must go beyond everyday usage, even to the extent of importing whole systems of new words and, in some cases, new rules of grammar.

The technical language of chemistry, physics, and biology is integral to the development of these sciences. Indeed, modern science is intelligible only to those who have learned at least some of this special language—access is limited to those individuals whose use of terms presupposes a greater depth and clarity than is required in everyday life. An adequate scientific account contains only expressions with comparatively fixed and clearly defined meanings, which means that it tends to be understood in much the same way by anyone who understands it all, that is, by anyone conversant with the terminology and concepts in question.

The degree of preciseness we find in science is the product of hundreds of years of careful and consistent logical thought. Experiment, observation, and inventiveness are not enough for the building up of knowledge. Together with these go logic, conceptual analysis, and precization, an aptitude for which must be acquired by all who hope to understand and make use of the results of scientific progress.

Technical language has its own set purposes and is often useless in everyday life, even to its creators. Extreme accuracy in itself can be both an obstacle to daily discourse and a sheer waste of time. A nicely crafted scientific

PRECIZATION AND DEFINITION

statement can, if used unjudiciously, become ambiguous or vague, whereas colloquialisms, even inarticulate exclamations, can in certain settings be quite clear. Someone who has had no practice in photography may often get better pictures with a cheap apparatus than with the refined equipment of the expert simply because he does not know how to make the necessary fine adjustments. In any case, a snapshot may be all that is required. A person can act wisely even if he is not adept at giving verbal accounts of what he does and why he does it. Politicians and businessmen often exhibit a high degree of intelligence in their behavior, although their own accounts of what they do can be hopelessly jumbled or trite. Literal interpretation of the words of “important” people often results in fruitless discussion, for their importance is frequently unrelated to their ability to express themselves.

A clear understanding of language as a precise instrument for thought need not blunt our sense for the other functions of language. Indeed, our appreciation of language as a whole depends on learning to distinguish between its separate functions. Without an awareness of such distinctions, we may fail to appreciate the values peculiar to poetic or purely scientific utterances; we may be led to make inappropriate demands for precision in poetry and for stylistic considerations in science. Consideration of style alone, for example, might require a writer to vary the term used to denote the same thing, but in scientific accounts this can only lead to a lowering of the level of preciseness.

Precization Defined

In serious discussion, we want to eliminate all expressions that experience tells us are vulnerable to misinterpretation. We try to replace them with other expressions or else explicitly restrict our use of such expressions by giving them definitions that apply to the discussion at hand. In such a case, when we replace an expression T with another expression U without departing from the topic, we can generally assume that U is intended to be a more precise expression of the statement it expresses than T —that is, U is a precization of T .

Definition of Precization (D_3). That expression U is a precization of expression T means that all reasonable interpretations of U are reasonable interpretations of T and that there is at least one reasonable

interpretation of T that is *not* a reasonable interpretation of U . This definition can be expanded to include terms as well.

D_3 can also be formulated as follows: that expression U is a precization of expression T means that there is at least one reasonable interpretation of T that is not a reasonable interpretation of U and that there is no reasonable interpretation of U that is not also a reasonable interpretation of T .

We can now establish that the following four expressions mean the same in this book: “ U is more precise than T ,” “ U is a precization of T ,” “ T is less precise than U ,” and “ T is a deprecization of U .”

If U is a precization of T , then according to D_3 it follows (among other things) that every reasonable interpretation of U is a reasonable interpretation of T . In particular, it follows that if U is a reasonable interpretation of U , then U is a reasonable interpretation of T . However, we already know that ‘is an interpretation of’ is a reflexive relation, that is, that all expressions are interpretations of themselves. Consequently, U must be an interpretation of U and, in this case, also of T . Thus, we see that precization is a special case of interpretation.

Although precization is a form of interpretation, the formal structure of the relation of precization is quite different from that of the relation of interpretation. If we substitute U for T in D_3 , we see that U cannot be a precization of U . ‘Is a precization of’ is therefore a *nonreflexive* relation. Furthermore, if U is a precization of T , then T can never be a precization of U . Thus, ‘Is a precization of’ is an *asymmetrical* relation. Finally, if U is a precization of T and T is a precization of V , then U is always a precization of V . Thus, ‘is a precization of’ is a *transitive* relation as well. (Recall from chapter 1, pages 16–18 that ‘is an interpretation of,’ in contrast, is a *reflexive*, *symmetrical*, and *intransitive* relation.)

If we are to decide whether or not U is a precization of T , we must ask ourselves the following series of questions: (1) Is U a reasonable interpretation of T ? If the answer is no, U cannot be a precization of T because every precization of T , according to the above reasoning, must be an interpretation of T . If the answer is yes, we must go on to ask, (2) Is there some reasonable interpretation of T that is not a reasonable interpretation of U ? If the answer is no, U must be rejected as a possible precization. But if we believe we can point to such an interpretation, we must go on to ask, (3) Can we find a reasonable interpretation of U that is not a reasonable interpreta-

PRECIZATION AND DEFINITION

tion of *T*? If we find such an interpretation, then *U* must be rejected as a possible precization. If we are unable to discover any reasonable interpretation of *U* that is not also a reasonable interpretation of *T*, then we can conclude that *U* is more precise than *T*, that is, *U* is a precization of *T*.

The term “precization” applies both to the expressions and terms we introduce as more precise than some other expression or term and also to the actual *process* of constructing these expressions. In everyday language, we can find many expressions, such as “clearer,” “more transparent,” “not so obscure,” and “less misleading” that convey roughly what is meant here by “more precise.”

We should note that the expression “*T* is *less precise* than *U*” is not exchangeable with “*T* is *a more general statement* than *U*.” Thus, although the sentence “All men are musical” is more general than “Only a few men are musical,” it need not be less precise. To generalize a statement is to make it apply to all members of a class rather than to specific members of it. Rash general statements are often false, but they are no less precise for being more general; they are just more comprehensive. According to our technical sense of “precise,” a pair of statements such as (1) “All positive whole numbers are divisible by 2” and (2) “All positive whole numbers over 1,000 are divisible by 2” are not comparable with regard to preciseness because they each have different reasonable interpretations. It would be hard to think of some reasonable interpretation that they had in common.

Consider another pair of statements: (3) “A characteristic of Ibsen’s work is its rigorous formal structure” and (4) “A characteristic of Ibsen’s greater works is their rigorous formal structure.” The relationship between (3) and (4) is, as with the previous example, one of degree of comprehensiveness. Generality does not exclude preciseness; this is fortunate, for if it did, we would be unable to give concise and exact expression to even ordinary bits of knowledge.

We must also not confuse the degree of preciseness of an expression with its tenability. We would most likely admit that the expression “Mozart was musical” expresses a tenable assertion in whatever way we interpret the term “musical,” but this does not necessarily indicate that the term “musical” is an especially precise one. On the contrary, it is only because we cannot conceive of any way in which Mozart could possibly *not* be described as musical that we do not ask here for a precization of *musical*. However, if

someone describes a small child as musical, we would almost certainly want to know whether the child in question was an infant prodigy or whether it was just that he smiled when he heard someone humming a tune. With “Mozart was musical,” however, one tends to subscribe straightaway to any unformulated assertion that can be a precization of it.

Yet another incorrect use of the technical term “precize” would be in contexts for which “specify” would be the more appropriate term. An expression U can be used to specify another expression T if U asserts what T asserts but at the same time asserts *something more* about the same subject matter. The warning about confusing “less general” with “more precise” also applies to “more specific.” Any difference between “less general” and “more specific” arises, *inter alia*, from the fact that a general statement is typically used to draw attention to the *similarities* among distinct objects while a “specification” draws attention to the special properties peculiar to distinct objects themselves. “Less general” does not imply “more specific.”

To illustrate the process of precizing, we can say that in answering the question as to whether T_1 is more precise than T_0 (in the list at the end of chapter 1, page 24) we should produce a reply such as the following: “There are many ways in which a person can be better than another. One of them is to get higher grades in school. An expression specifying that a person is better than another in this respect is more precise than one that does not mention any circumstances at all. It both gives more information and allows one to accept or reject the assertion on the basis of the information it provides.” Note that in the case of *specifying*, however, the added information does not serve to identify assertions in this way; it only adds more to an assertion that is already identified. We could put it like this: The fact that the expression “gets higher grades than” is a *precization* of “better than” does not depend on its being more *specific*, although it is obviously that, too. It depends on the added information having the potential to enable us to choose correctly one assertion from a whole list of unformulated ones, all of which are possible and distinct interpretations of T_0 .

Of course, an expression that is a precization of another expression for some people may for others be a specification or a generalization of the same expression. For example, for some people, the expression “He is going to Washington” (T) may be only a specification of the expression “He is going” (U), whereas for others who are more likely to interpret U as saying that

PRECIZATION AND DEFINITION

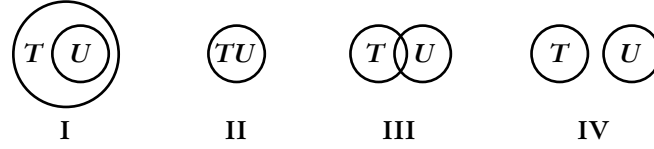


Figure 3. Relationships between two expressions, T and U .

someone is dying, T will be a precization of U . Although all interpretations of T will be possible interpretations of U , U has at least one interpretation that, in this context, T does not have.

The meaning of ‘is more precise than’ can be illustrated with the help of circle diagrams. If we represent all reasonable interpretations of T as contained within one circle and all reasonable interpretations of U as contained within another, we get four possible relationships between the circles (figure 3).

In case I in figure 3, there are no reasonable interpretations of U outside the domain of T ; all of them lie within T . This illustrates the case in which U is more precise than T . Case II illustrates the situation in which T and U allow exactly the same reasonable interpretations; there are no reasonable interpretations of T that are not also reasonable interpretations of U and no reasonable interpretations of U that are not also reasonable interpretations of T . In case III, T and U have some reasonable interpretations in common and some that are confined to each of them; according to D_3 , then, neither one can be more precise than the other. Because they cannot be similarly precise, they cannot generally be regarded as comparable with respect to preciseness. Case IV illustrates the most common situation: T and U are two randomly chosen expressions for which, as a rule, there are no reasonable interpretations in common. As in case III, they cannot be compared with respect to preciseness.

Two expressions, T and U , are incomparable with respect to preciseness if, and only if, each T and U have at least one reasonable interpretation that the other does not have. For two expressions to be incomparable with respect to preciseness, it is only necessary that each expression has at least one reasonable interpretation not shared by the other. If expression U is a precization of expression T , then T will have more reasonable interpretations than U , granted that U has a finite number of interpretations. According to D_3 , if U is a precization of T , each reasonable interpretation of U is also a

reasonable interpretation of *T*, and *T* has, in addition, at least *one* reasonable interpretation that is not a reasonable interpretation of *U*. To find merely that expression *T* allows a greater number of reasonable interpretations than expression *U* is not in itself sufficient evidence that *U* is a precization of *T*. The necessary and sufficient condition is as given in *D*₃.

Finally, if, as often happens, one person judges *U* to be more precise than *T* in situation *S*, while in the same situation *S* another person judges *T* to be more precise than *U*, the only way to decide who is right is to make systematic observations of language customs in *S*.

Prescriptive Definitions

When we precize a term “*b*,” we provide less ambiguous terms for something that “*b*” sometimes, but not always, expresses. Precizations do no more than describe a segment of already existing language habits; they introduce no proposals for changing these habits. This section considers a kind of statement that is concerned not with describing language usage but with altering it.

The difference between describing and prescribing is a familiar one. If we say that no one is to be considered an adult until he is sixteen years old, we are stating a rule. If one person at fifteen is, in fact, more “adult” than another at sixteen, this does not make the rule false or invalid, only silly. However, if one says that someone at sixteen years of age is, in fact, more adult than another person at fifteen, one purports to describe a state of affairs, and this claim could certainly be false.

There is an analogous difference between describing and prescribing language usage. When we say that term “*a*” often has the same meaning as term “*b*,” we are *describing* a usage. But if we say that term “*a*” in a certain context is to mean the same as term “*b*,” we are *prescribing* a usage. We make a rule our listeners must follow if they are to be clear about what we say. I will call such a rule a “prescriptive definition.” The purposes of prescriptive definitions are discussed in more detail in the next section. Here it is enough to say, briefly, that their most common use is to replace long and complicated expressions with shorter and simpler ones.

The word “definition” comes from the Latin *definitio*. The verb is *definire*, which means to “set limits to” and hence to delimit the meaning of terms. Generally, the etymology of a word provides no reliable indication

PRECIZATION AND DEFINITION

of its use in contemporary speech, but in this case, the word's technical meaning represents both a deepening and a precization of the original Latin.

In this book, the word "definition" occurs both by itself and in compound expressions such as "prescriptive definition," "descriptive definition," and so on. When it occurs by itself, it is being used as an abbreviation for "prescriptive definition."

Definition of Prescriptive Definition (D_4). By "prescriptive definition," we mean a definition that requires an expression T in a certain specified context, or in all contexts, to be interpreted in the same way as another expression U .

Expression T is called the *definiendum* (that which is defined) and U the *definiens* (that which defines). We can formulate what we mean by *definition* in the following way: " $T =_D U$ in S " or " T , by definition, is to be synonymous with U in context S ."

With regard to D_4 , when a definition is proposed for only a particular context, its application is often restricted to specific chapters or works in which the term in question is used. Definitions can be proposed even though it is fully realized that they would be inadequate in other contexts.

In setting up a definition $T =_D U$, it is likely that U was already an interpretation of T even before it was called into service as a definition, but this is not always the case. A definition aims at limiting the use of the *definiendum* (T) to those cases for which the *definiens* (U) specifies our usage of the term, and it is quite possible for T to be defined by U without previously having been a possible interpretation of it, or without U already being an interpretation of T . Of course, if T is an entirely new expression, there is little likelihood of confusion and U may gradually become established in common usage as an interpretation of T . (Note in this context that it is not a prescriptive definition itself but rather a *definiens* that can be an interpretation of the *definiendum*.)

Whether the context is a scientific one or not, it is a common malpractice to introduce formally a prescriptive definition and then quickly forget it or fail to follow it consistently. After first stating that T in context S will always mean the same as U , one ends up by using T in some other way. This is a readily avoidable source of confusion. It can also happen that, having given a prescriptive definition and used it for a while, one finds that it is not

suitable. The thing to do then is to indicate one's decision to give up the prescriptive definition in the hope of eventually producing a new and better one.

To propose a definition of expression T is the same as to propose that T be interpreted as U , which according to D_1 implies that T and U shall be treated as cognitively equivalent expressions. In other words, one proposes that, in some linguistic context, T is to be replaced by U and that U can be substituted for T without change of meaning. To be sure that the expression U interprets expression T in accordance with one's intention, it is a good rule to strike out T in the text and substitute U to see if there is any change in meaning.

Two Examples of Prescriptive Definitions

My first example of a prescriptive definition is the expression D_4 . With this I clearly state that, in this book, the term "definition" is to be interpreted in the same way as the longer expression provided. This longer expression is probably a good deal more precise than the word "definition," but it is more convenient to use the simple word "definition," especially since it is already often used in much the same way as the longer expression.

A second example of a prescriptive definition is provided by the Norwegian law on labor disputes, which begins by defining some terms:

1. A worker — anyone who in return for money undertakes work of whatever kind for:
 - a. a private employer.
 - b. the state or municipality, provided he works by agreement or with a notice-of-termination period of fourteen days or less, and provided he is not to be considered a public servant.
2. An employer — anyone who employs one or more workers.

Here we are given a definition of the word "worker" in terms of a long expression. (According to this definition, the term "worker" probably covers more than the usual sense of the term. The head of a department, for example, would be a worker according to the definition, as long as he can give two weeks' notice.) The definition of the word "employer" makes use of the definition of "worker." The *definiens* in the definition of "employer" should

PRECIZATION AND DEFINITION

then read: “anyone who employs one or more persons, who in return for money. . . .” This in turn can come into the definition of “worker” (1a), and so we end up in a circle.

As mentioned earlier in this section, there are different kinds of definitions. An expression that is formulated as a definition, or is explicitly stated to be a definition, can often be interpreted as follows:

1. A description of the meaning of another expression or term.
2. A proposal (or sometimes a report of a proposal) about how an expression is to be interpreted in terms of another expression or term.
3. A combination of 1 and 2.
4. An assertion that some property is essential to or especially characteristic of this or that object.

A sentence of type 1 was characterized earlier as a descriptive definition. A sentence of type 2 was just characterized as a prescriptive definition. A sentence of type 4 is often called an “essential definition” or “real definition.” However, none of the uses of the term *definition* as indicated by 1, 3, and 4 coincide with that given by D_4 . Definition D_4 constitutes a precization of our usage in the way indicated by 2.

Example of Definition 1

Consider a quotation from political scientist James B. Bryce in his book *Modern Democracies*: “Democracy really means nothing more nor less than the rule of the whole people expressing their sovereign will by their votes” (Bryce 1921, vol. 1: vii). This assertion occurs in an analysis of the actual content of so-called democracies (before 1930) and gives to all intents and purposes a precization and description of the typical usage in professional literature on this subject.

Consider, too, the following: “During recent years such terms as economic democracy and industrial democracy have been used to describe a system under which the many would control business as well as politics” (Nearing 1945: 23). The first words in this description of usage delimit — though roughly — the area the definition is thought to cover.

In a psychology book we find the following: “Psychology means ‘learning about the self.’ But what is the ‘self’? Some understand the self as a self-

sufficient essence, so fundamentally different from the body that after death it is able to lead its own life, independent of all that is corporeal.” The first sentence of this passage is probably intended as a precization of the word “psychology” for those not already acquainted with its use. The third sentence, however, seems to mention a property of the self (according to some), not a piece of information about some people’s usage, and we should therefore call it a real definition. If this accords with the author’s meaning, the following refinements and revisions are justified:

“Psychology” means the same as “learning about the self.” But what is the self? Some understand by the ‘self’ . . .

The use of double and single quotation marks allows us to indicate the fact that the first sentence covers the word “psychology,” while the second and third sentences cover the self and the concept ‘self,’ although the distinction is by no means a clear one. (See the threefold distinction illustrated in figure 1.)

Example of Definition 2

In *Human Knowledge*, Bertrand Russell (1948: 113) writes: “‘Belief,’ as I wish to use the word, denotes a state of mind or body, or both, in which an animal acts with reference to something not sensibly present.” Here Russell clearly indicates that however others use the term ‘belief,’ he is going to mean by it what he takes both himself and his readers to mean by “a state of mind or body, or both, in which an animal acts with reference to something not sensibly present,” a *definiens* that he then proceeds to clarify with examples: “When I go to the station in expectation of finding a train, my action expresses belief. So does the action of a dog excited by the smell of a fox . . .” and so forth.

Example of Definition 3

Under the heading “Price Index. 1. Definition” in a textbook of economics, we find the following definition that looks as if it were also a description: “By price index one means a common expression for the average height of the different goods’ prices in a land, measured in proportion to

PRECIZATION AND DEFINITION

prices in a given former year.” The author describes what is meant by “price index,” which means that he is concerned here with a description of usage. But the sentence occurs in a context that makes it probable that he also wants to make clear in this sentence what particular usage he intends to follow in his textbook. This indicates that it is an instance of the composite definition 3.

Example of Definition 4

The sentence “Democracy essentially means freedom of expression for every individual” may be meant to express something especially characteristic of democracies. In the same text, a definition of “democracy” may be offered in terms of a form of government. A shorter sentence, “Democracy means freedom of expression,” may also, in certain contexts, plausibly be interpreted as an assertion that freedom of expression is essential or especially characteristic of a democracy.

It is important to be able to distinguish among definitions 1, 2, and 3. Often, however, the context gives little indication as to which of them is most reasonable in a given case. It is particularly important to separate real and prescriptive definitions 4 and 2, if only because when a prescriptive definition is required for an expression, real definitions are of no value, however profound they may be. The understanding of a real definition presupposes that the *definiendum* and *definiens* are interpreted in a fixed way. As long as words are vague and ambiguous and therefore in need of prescriptive definitions, real definitions are not suitable. It is not enough that the expressions have a fairly determinate meaning for the speaker if this meaning is not understood by the audience.

It is easy to envisage how a grasp of definition theory can prevent chaos and inconsequence in the course of discussion. Suppose someone proposes a prescriptive definition for the use of an expression in a discussion and then another person gets up and says the first is mistaken, that the definition is stupid and does not accord with the expression’s real meaning, and that he himself has the “correct” definition. We might reasonably assume either that the second speaker has not understood that the first meant to give a prescriptive definition or that the distinction did not occur to him. If the objector, however, declares that the definition is inadequate or unserviceable, his objection might well be a pertinent one.

Debates often give rise to exchanges of the following pattern: P_1 asserts T_0 , and P_2 replies that it is a question of definition whether one accepts or rejects T_0 . Now, P_2 can reasonably be assumed to be asserting two things. First, T_0 , in the situation at hand, allows for at least two reasonable interpretations, T_1 and T_2 , and T_0 is tenable if interpreted as T_1 and untenable if interpreted as T_2 . Second, a discussion can proceed only after a decision, in the form of a prescriptive definition, is made that will allow us to determine whether T_0 is to be interpreted as T_1 or as T_2 .

If one wants to avoid a dispute about which prescriptive definition to apply, one can take a conditional position toward T_0 : “If P_1 by T_0 means T_1 , then I agree; if T_2 is meant, then I disagree.” Let us observe an example of this:

We are told about a certain Valentin Sjerepanov that he “died, but is now alive.” On March 3, 1944, at 2:41 P.M., his breathing had ceased, his heart had stopped beating, his reflexes had gone, and yet he undoubtedly came back to life again. Here we might plausibly say that it is simply a matter of definition whether one accepts the possibility that the expression is true. For certain prescriptive definitions of “dead” and “alive,” the proposition will be analytically untenable; for others it will be synthetic (see chapter 3, pages 55–57, for a discussion of “analytic” and “synthetic” expressions). If the proposition is held to be self-contradictory on the basis of rules of language, it cannot be true—whatever may have actually happened to Sjerepanov.

Why Precize or Define?

In this book, I am focusing on the significance of the process of precizing in actual discussion. But precization is also relevant to the clear stating of problems and, indeed, to all thinking whatsoever. To take an obvious example, consider the question of so-called pseudo-problems, that is, problems that, when rephrased or precized, seem to express either some quite different problem or else a truism. We know that since the beginning of early Greek civilization, people have discussed whether the problems philosophy considers are pseudo-problems—and this question has even been raised in connection with the special sciences.

In *Essays in Pragmatism*, William James (1907) tells us of an elementary example of a pseudo-problem. It is mentioned here only to illustrate what a

PRECIZATION AND DEFINITION

pseudo-problem is, not because it is particularly profound or of any practical consequence.

Some years ago . . . I returned from a solitary ramble to find every one engaged in a ferocious metaphysical dispute. The *corpus* of the dispute was a squirrel — a live squirrel supposed to be clinging to one side of a tree-trunk; while over against the tree's opposite side a human being was imagined to stand. This human witness tries to get sight of the squirrel by moving rapidly round the tree, but no matter how fast he goes, the squirrel moves as fast in the opposite direction, and always keeps the tree between himself and the man, so that never a glimpse of him is caught. The resultant metaphysical problem now is this: *Does the man go round the squirrel or not?* . . . Every one had taken sides. . . . Mindful of the scholastic adage that whenever you meet a contradiction you must make a distinction, I immediately sought and found one, as follows: "Which party is right," I said, "depends on what you *practically mean* by 'going round' the squirrel. If you mean passing from the north of him to the east, then to the south, then to the west, and then to the north of him again, obviously the man does go round him. . . . But if on the contrary you mean being first in front of him, then on the right of him, then behind him, then on his left, and finally in front again, it is quite obvious that the man fails to go round him. . . . Make the distinction, and there is no occasion for further dispute." (James 1948: 141)

These two distinct precizations express two quite different assertions, both of which, in the case cited, the company apparently agreed to — apart from some obstinate dissenters who would have nothing of precization and other hairsplitting and maintained that the man either did or did not go around the squirrel.

Precization is also useful for bringing out the depths of an expression's meaning since it implies that there is a thought to precize. Mindless chatter cannot be precized. The attempt to render an expression precise may therefore be a way of finding out whether we mean anything at all when we use it. With practice, we can become better at distinguishing between an articulate and a superficial grasp of what an expression means. Such a skill enables us to appreciate the richness and subtlety of intelligent remarks, just as it equips us to see through the shallow glare of catchphrases and propaganda. Furthermore, precization can have thoroughly practical applications.

In recent years, opinion polls have come to play an increasing part in social life. Through interviews and questionnaires, one tries to get as accurate a picture as possible of the general public's attitude to certain questions

of social significance. The vast expenditure of time and energy devoted to these investigations could easily be wasted in view of the difficulties involved in predicting ambiguities in the questions put to the public. Systematic inquiries can, however, be conducted so as to discover the most important sources of misunderstanding in any given questionnaire, but difficulties must also be faced when interpreting the answers obtained. In spite of every safeguard, people still seem to answer questions other than those being asked, and as long as they are unaccustomed to formulating reasonably precise and complex expressions, they will be unlikely to give any reasonably precise answers.

The aim of definition is different from that of precization. If we discover that an expression can be interpreted in two ways and that serious misunderstandings occur every time speaker and listener interpret it differently, there can be no profitable discussion as long as that expression continues to be used. However, if a precization that does eliminate differences in interpretation is too complicated (e.g., uses ten to twenty times as many words as the original), it will likely be too clumsy. In that case, what we need is a definition. A definition can explicitly state that the original expression is to be used in the sense provided by one of the long precizations; once this is clear, we can safely keep to the original and more handy expression.

Even if the difference in complexity between *definiens* and *definiendum* is slight, a definition can still be appropriate. In train timetables, for example, instead of expressions such as "8 A.M." and "8 P.M.," some countries use "8:00 hours" and "20:00 hours." The number "8," because of its horological ambiguity, can give rise to much inconvenience, and so to avoid unnecessary confusion, definitions are made that treat "8 P.M." and "20:00 hours" as equivalent expressions, while "8:00" is to be regarded exclusively (in this context) as an interpretation of the expression "8 A.M."

Of course, adopting a definition does not thereby enable one to convey something that could not also be conveyed without it. The *definiendum* can always be substituted for the *definiens*; we subscribe to each of them as if both were one and the same. What a definition allows us to do is to express ourselves more effectively in discussion; it does not enable us to say something that we could not say previously. The special merit of a definition is not that it allows us to say more, but that because a *definiendum* is much shorter than a *definiens* and because the latter contains a high level of preciseness, once having stated a definition, we can express in a few lines what

would have required many volumes. The relevance of this shorthand to the exact sciences, which are largely made up of definitions, should be obvious.

How to Precize and Define

At times it is not immediately obvious that an expression may give rise to serious misunderstanding. One reason for this might be that, over time, an expression may come to lose its preciseness. It is tremendously difficult to keep the preciseness of an expression fixed over time. Language habits change, and then we need to revise our forms of expression.

When we are told, in logic and methodology, to make our expressions precise, this very imprecise expression itself does not suggest that we should precize every expression up to the hilt, but only that our expressions should be sufficiently precise for the purposes at hand, which is quite another matter.

Excessive precization is especially undesirable because that preciseness must be bought at the cost of other desirable features of expressions, notably conciseness. It is a practical question as to where in a given situation one should leave off, and largely a matter of exercise in finding out where further precization no longer pays. Let us look at some of the considerations that might serve to prevent misplaced zeal in precizing.

First, one should consider whether taking a position on T really depends on how T is interpreted. Perhaps all the arguments that can be adduced for or against T can be equally adduced for or against any interpretation of T . In that case, it would be unnecessary to distinguish between the different interpretations, especially if the distinctions in meaning are slight.

Second, one must consider the capacity and stamina of one's audience. Generally, the stronger the precization, the greater the length and complexity of the expressions and, correspondingly, the greater the demands on the audience. Detail in itself can be an obstacle to understanding. Therefore, if we have to decide between a comparatively simple but less precise expression and one that is longer, more detailed, and more complex in construction, we must have good reasons for choosing the latter. In this situation, our choice would largely depend on the competence we attribute to our audience.

Third, the choice we make depends on how serious and frequent any misunderstandings may be. As noted before, it is impossible to eliminate *all* misunderstanding; developments in language and our own limitations in seeing what an expression implies rule that out. Serious misinterpreta-

tions must naturally be avoided, but we can often rely on the probability that interpretations will correct themselves in the course of a discussion as the audience or participants gradually come to feel comfortable with the ideas being aired. Excessive precization at the outset can easily prevent people from arriving independently at an understanding of what is being said. A person who clarifies his expressions simply to guard against their being taken in any sense other than his own may betray an unwillingness, perhaps also an inability, to see what someone else might mean by them. In the extreme case in which an expression has become resistant to reinterpretation, it is no longer a vehicle for expression but just a formula. We should precize to exclude misunderstandings we have learned to expect, not to promote the cult of univocality for its own sake. It is a matter of making this or that point somewhat clearer in order to save confusion and annoyance. For instance, a statistician who asks people their ages would save an immense amount of bother if he specifies the method of calculation he wants: whether it be age at last birthday; at next birthday; at nearest birthday; or in years; years and months; years, months, and days; and so on. But if in casual conversation someone asks our age, we do not ask what system of calculation he wants us to use.

Finally, we should remember that, for different groups of people or for different areas of discussion, the same expression *T* can stand as a shortened form of a number of different precizations. An expression about theft, for example, will tend to be precized differently by lawyers and by psychologists. Different considerations are involved. But this can easily be overlooked when we move from one group to the other, and especially when many of the words used by either group are the same. A term or expression in one field may have a high degree of preciseness; in another field, it can mean something quite different or mean the same but be unseparated from a set of precizations that are attached to it in that field. Just consider everyday, scientific, and philosophical interpretations of the expression "substance" as a case in point.

The Task and Pitfalls of Definition

As an example, I will try to arrive at a definition designed for a fixed purpose: a definition of "Christian ethics" that can be used in a debate about which religion embraces the highest moral teaching.

Begging the Question — *Petitio Principii*

When arguing about different standpoints, it is important that we can identify them. To know what we are talking about, we need to agree on a definition for each. This presupposes prior agreement about the terminology to be used. Without agreement at these two stages, fruitful discussion cannot even begin, for it will be impossible to know whether the view one criticizes is, in fact, the view one's opponent is supporting. In the case in question, then, what we need is a short statement in an agreed terminology defining "Christian ethics" for the purposes of the discussion at hand. Before undertaking a debate about the relative merits of religions, the disputants must come to some common understanding of what they are discussing.

Any definition that presupposes the superiority of a given religious moral teaching over any other will be worthless. This mistake may seem obvious; nevertheless, it is one that is frequently made, especially when the disputants are themselves representatives of the standpoints under discussion. As long as we manage to keep the evaluative component out of our definitions, discussion can proceed profitably. In the present case, we might avoid the danger of begging the question by giving a definition of "Christian ethics" in terms of the moral code enunciated in the Sermon on the Mount, for here the code is specified, not evaluated. What we must avoid are any definitions such as: (1) "Christian ethics" is taken here to mean the same as "the moral teaching that demands most of men but gives them the means to achieve the greatest happiness"; or (2) Christian ethics assumes that man will always do good toward himself and his fellows, that he will not offend against the legal code, and that he clearly understands there to be only one God. It would be absurd to base a discussion on such statements when it is precisely the question of whether a Christian moral outlook is always good that is in question.

Evading the Issue — *Circulus Vitiosus*

Our motives for defining something are clear enough. We know from experience what happens when the terms of a discussion are used by the disputants in different ways. In typical, everyday discussions, the range of possibilities is very wide. Taking our example, the question of "Christian

ethics,” people often put emphasis on the New Testament, but a quite different sense is given to the term if our definition of it is drawn, as it was frequently in the past, from the Old Testament. Similarly, one may think of Christian morality in terms of moral dogmas common to the Protestant, Roman Catholic, and Greek Orthodox churches or in terms of Lutheranism, Methodism, Anglicanism, and so on. When we want to discuss Christian ethics, we must agree on a definition. But this may well involve us in discussions on altogether different topics, for disagreement can arise over what *is* an accurate or adequate definition of “Christian ethics.”

Part of the difficulty in the present example resides in the term “ethics” and its cognates. Although we should reasonably expect a definition of the term “Christian ethics” to give some indication of how we should interpret the term “ethical,” it would be worse than useless if that was *all* it gave us, as in “To live one’s life as believers in Christ deem best.” Certainly what is “ethical” for a Christian is what that person believes to be the best way of behaving, but even if this provides a clearer notion of what ethics is, we still have not arrived at a definition of “Christian ethics.”

Consider another proposal: the Christian precepts for behavior as they are based on the example of Christ’s own life. Two distinct concepts are involved here: the proposal implies that if some precept is (1) based on Christ’s example but is not (2) a Christian precept, then it does not belong to Christian ethics. The proposer must accept this. However, he may not have intended this implication, and in such a case, he must withdraw his proposal. What he may have wanted to propose might be expressible as “those precepts that are based on Christ’s example.” In that case, the original proposal is no more than a *circular* definition, merely repeating in different words in the *definiens* what is already said or implied in the *definiendum*.

We should note that not every use of the expression “Christian” is automatically part of a circular definition. If our *definiens* is, for example, the expression “that which Mr. So-and-So calls Christian ethics,” then we have at least made a step in the right direction. The presumption is that Mr. So-and-So has specified the behavior he calls Christian, that we are willing to accept his specification for the purposes of the ensuing discussion, and that the disputants are acquainted with the specification in question. By delimiting the topic, even if only indirectly, we are beginning to be specific. We may be hedging, but we are not just beating around the bush.

Muddying the Issue—Obscurum per Obscurius

Since the purpose of a definition is to improve clarity and avoid misunderstanding, it is natural that we should look for a *definiens* among the precizations of the expression in question. But if our *definiens* of “Christian ethics” can still be interpreted in all the different ways open to the various disputants, nothing will have been gained. The matter must be clarified still further.

Although one can never hope for absolute clarity, one can at least strive to avoid the worst misunderstandings. To do this requires imagination and memory and an ability to anticipate the kinds of misunderstanding and obscurity that can arise in any given discussion group. One must be prepared for cases, as in our present example, in which (1) *A* has some misgivings about some norm that he has included under Christian and *B* either replies that this norm comes from some obscure part of the Old Testament and therefore *need* not be included under Christian ethics or that it is a Catholic norm and that, as a subscriber to Christian ethics, he does not need to be held accountable for the special dogmas of every denomination; or else that (2) *A* is talking about what Christians practice and not what they preach, and so on.

What is needed is an indication of what the Christian representative in the discussion will, *in all cases*, feel bound to support — perhaps something like the commandment about loving one’s neighbor as oneself, or some fairly clear account of a liberal or orthodox variant of Protestant-Lutheran moral teaching. What we have to try to bring out are the essential differences between Christian and other moral teachings, and for this we need a representative view of Christian teaching as a whole, irrespective of doctrinal differences.

The need for clarity and simplicity implies that the words used for the definition must be simple, ordinary, and, as much as possible, concrete. If I say that Christian ethics is “a mode of living that stipulates understanding of, and identification with, the loftiest ideals inherent in the true Christian’s standpoint,” I can hardly be thought to be laying myself open to argument. In addition to the circularity involved in the expression “true Christian standpoint,” it is unclear what ideals we are to understand and subscribe to. A better definition for purposes of argument would be something like “the morality Christ preached, centering on the positive command-

ment to love.” Here everything extraneous has been pruned away; all that is missing is a formulation of the commandment about love and a clearer idea of its relationship to the rest of Christ’s teachings. Better still would be the provision of criteria for what is to count as Christ’s teaching. The expression, “what Christ taught” may be precise for those educated in the Christian religion, but for others it may have no specific designation.

Consider the following proposal: by “ethics” I mean systems of rules for the conduct of the lives of a group of people (in this case adherents of the Christian faith). Using this proposal to precize our *definiendum*, “Christian ethics,” we obtain the following:

$T_0 \equiv$ Christian ethics.

$T_1 \equiv$ Conduct of one’s life in conformity with the Bible’s commandments.

In aligning Christian ethics with the Ten Commandments, I assume that the Commandments synthesize all of what people generally mean by “Christian ethics.” In our discussion, therefore, I believe that most of the disputants will associate Christian ethics with the Ten Commandments.

Now, although it is true that many Christians associate Christian ethics with the Ten Commandments, many non-Christians contend that the Commandments actually synthesize the content of a number of moral systems in addition to the Christian one. For them the definition would be too wide.

Consider another proposal: Christian ethics is the morality based on the Ten Commandments as they are interpreted in the Lutheran catechism. I assume here that the participants in the discussion know the Ten Commandments and the Lutheran interpretation of them. I take this definition to be sufficiently neutral, and I think it covers fairly well most of what the participants, Christian and otherwise, understand by the expression “Christian ethics.” But because I also hope to greatly limit the chances of conflicting interpretations of the expression “Christian ethics,” my proposal is also a precization of this expression.

Here we may suppose that by “participants in the discussion” the proposer means “attending members of the class of contemporary British and American theologians”; but it could be that the participants have quite different backgrounds. If so, the reference to Luther could mean too severe a restriction of the subject matter, and the definition might thus be too nar-

PRECIZATION AND DEFINITION

row. However, if the proposer is thinking in terms of a debate among Lutherans, the outcome of the discussion is too obvious to be interesting. Otherwise, the definition is fairly satisfactory, although it should really have been formulated explicitly as a *prescriptive* definition.

Sources of Error in Precization

One often hears disparaging remarks directed at those who insist on precise expression. Indeed, it is only somewhat apologetically that one resorts to the philosophical rejoinder, "It depends on what you mean by. . . ." This opening tends immediately to label one as a bore intent only on deflating the richness and profundity of the discussion, or else it is taken to be indicative of a neurotic and unsociable tendency toward hairsplitting. No doubt there is some basis for this disparagement. Precization, after all, is a means to an end, and unless there is an end, or unless it succeeds as a means, it is a waste of time. Furthermore, it is a skill, something one has to learn to become proficient. Perhaps the most common cause of failure in precization is simply lack of training. It takes a good deal of practice to be able to arrive at just the precization that the situation demands. One's precizations can miscarry because they are too long-winded or couched in inappropriate terminology, and so on. Furthermore, precization tends to be an all-or-nothing affair: success that is only partial is tantamount to failure. This perhaps accounts in part for the negative associations with demands for preciseness. We succeed too rarely to find the appropriately precise expressions for what we mean.

There is another aspect to this. We precize whenever we come across misunderstanding, and this occurs most commonly in actual debate. Unfortunately, here the conditions for doing the job properly are poor; all we can usually hope for, in the flush and flurry of debate, is some fast repair work to keep the discussion going. The real work of precization must take place when there is time for longer reflection. However, when one sits alone and recalls the issues raised in a debate, one easily forgets that the words and expressions that impress themselves on one's memory may, for the disputants, have been mere catchwords and slogans, full of sound, fury, and perhaps *some* point, but signifying much less than was initially presumed. One also tends to forget that even if the contestants are already equipped with the appropriate precizations, in the interests of persuasion, they nevertheless often

distort the views of their opponents and present them in caricature. The most important part of open debate takes place behind the scenes. One's precizations are best arrived at before the event, in an atmosphere more conducive to the collecting and sifting of arguments and information.

In inconsequential and superficial discussion, we often make attempts at precizations that lead to the replacement of an ambiguous expression by a slightly less ambiguous one. We often call this "defining." However, it is not enough just to cast around in our minds for an expression, even if it may turn out to be more precise in some ways. What is needed is the ability to recognize the source of the misunderstanding that occasions the attempt. One should be able to recognize the interpretations that constitute the misunderstanding, which requires an ability to discriminate between different groups' uses of language. Otherwise "defining" is almost certain to be a hindrance rather than a help.

One often finds precizations that end up expressing nothing of what one's original expressions were intended to convey. For example, someone versed in town planning may accept a quantitative statement about overcrowding which says that overcrowding exists when there are more than two people to a room. I, however, may be thinking of overcrowding in more qualitative terms and find that much of what I have said has to be withdrawn if interpreted anew in light of the quantitative statement.

In addition, one often finds that successful precization leads to a compartmentalization of the discussion. Instead of talking vaguely about a set of similar but not identical topics, one aspect of the set is taken and discussed at the expense of the others, which must then be dealt with separately.

One source of error, not easy to eliminate, consists of having overestimated one's ability to remember special definitions of well-established expressions. There is a natural tendency to fall back on established meanings and to resurrect the misunderstanding one sought at least temporarily to allay. Perhaps then we tend to blame the idea of precization itself instead of looking for simpler definitions or fixing them in our minds by repeating them, or simply avoiding the awkward expression altogether.

Many people seem to suppose that proper discussions must be well-attended affairs — the more the merrier — as if the typical discussion were a kind of social gathering at which everyone should have something to say. Such "discussions" can be pleasant and diverting ways of passing the time,

PRECIZATION AND DEFINITION

but as such, they are no place for precization. In such a context, precization is not only unnecessary but should be avoided because it is deliberately intended to exclude that rich variety of interpretation on which the mind must feed as it flits from one topic to another. On such occasions it would clearly be an indiscretion to ask for definitions. Nevertheless, this must not detract from the status of precization as such, for precization is an important instrument, which is essential for certain purposes. There are, of course, many situations in which either no such purposes arise or those that do arise are not served by precization.

We should also bear in mind that what people say in an idle moment is often remembered later and recast in memory as their "opinion." The more precise we are able to be generally, the less demand we create for precization, but also the less likely we are to be misrepresented when our words are later recalled and quoted. Among the innumerable activities in which precization performs no primary function are preaching and propagandizing, even though the object is to convey something by means of words. In such cases, it is much more important to create the right atmosphere for making words as compelling as possible and for heightening the audience's suggestibility than it is to speak with clarity and precision. Here, too, the demand for clear and precise utterances would be indiscreet.

New Meanings for Old Terms

One sometimes comes across the claim that two different meanings must never be expressed by the same term or terms. However, it would be extremely awkward if we had to change the term or terms every time we wanted to change a meaning. Even in the exact sciences we find changes of meaning occurring without any concomitant relinquishing of the old form of expression. Awareness of this is an essential part of understanding how knowledge develops, and it is also a prerequisite for understanding the terminology current in a given science.

Take just one example of a change of content without a corresponding change in the form of expression. The term "element" originally came to be used in chemistry in accordance with the convention that assumes that elements cannot be broken down — an assumption that radioactivity has since refuted. Radioactivity so transforms the matter that was once assumed to

comprise elements that there is no possibility of finding elements in the accepted sense. Now, there would be no scientific point in retaining an empty *concept* 'element' to which nothing answered, even though retaining the term might have some historical justification. Yet we still need a word for the matter that has all the formerly assumed properties of elements except indivisibility. Furthermore, we need a common term for iron, potassium, oxygen, and so on since these have many important characteristics in common. Because nothing falls under the old meaning of the word "element," the term becomes available for new employment. Without changing its form, we can use it to express something different from its previous meaning. The obvious course, then, is surely to retain the word "element" as the generic term for iron, potassium, and so on, but at the same time give it a new meaning, insofar as it no longer implies that elements cannot be broken down. Thus, we continue to use the old expression "element" as a descriptive term, but we use it with a different descriptive force. This procedure depends on the word's acquiring new meanings that correspond to developments in chemistry and physics and lie within the relatively indeterminate scope of everyday use of the term. Otherwise, the new usage will tend to be misleading. But if we were to change terms with every change of meaning, we would not only overtax our memories but also lose sight of the continuity in the development of science. It is partially through those very points of similarity between old and new meanings of the same word that this continuity finds its expression.

Not changing a descriptive term can be taken as a sign of such a similarity. Nevertheless, we must be clear that it is not a simple matter of choice whether we create a new term or keep the old one. A variety of factors are involved, not the least of which are the ambition and vanity of scientists themselves. History provides many examples of people who, perhaps to emphasize the originality of their own views, have introduced new terms where the old ones could have done just as well and perhaps better. On the other hand, we also see examples of how terms in a highly developed field of science are carried over to another field that is much less exact and in which the terms are then used in new but often less precise senses. Consider the term "reaction" as it is used in psychology. Borrowed from chemistry and physics, "reaction" is used with all degrees of impreciseness within the new field of inquiry. Another example is the term "function" as it is used in sociology.

Fruitful Concepts and Appropriate Terms

Old concepts are forgotten or discarded because there is no longer any use for them, and new ones emerge. But time-honored concepts can be so completely a part of our conceptual system that it may take a long time for them to be displaced by new concepts, even if the latter are more suited to contemporary modes of investigation. Language customs seldom keep pace with scientific progress.

It is also important to remember that the existence of some concept term in no way guarantees that something falls under the concept, let alone that the concept is a useful one. To explain the existence of a certain concept term, it is enough to assume that particular people once *believed* that something had the characteristics specified by the concept and that the concept at that time—under assumptions that perhaps no longer apply—was of use or at least of significance. Concepts come to be reformed as knowledge increases and errors are corrected. For instance, for a long time the view of matter as either organic or inorganic was prominent in the natural sciences. An important property of organic matter was thought to be that it could not be produced through a synthesis of simple products. But in the past century, a great number of organic materials have been produced synthetically. At the same time, the distinction between organic and inorganic has become more fluid and theories in which the distinction plays a role less widespread. The concept of organic matter has become a less fruitful one. Of the new concepts that have partially replaced the old, we can mention carbon chemistry. So-called organic chemistry is now actually carbon chemistry, the old concept term being retained in spite of the transformation of the concept.

A necessary, but by no means sufficient, condition for concept *B* to be fruitful can be formulated as follows: those things, and only those things, that fall under *B* must, in addition to properties mentioned in the conceptual description, also have other common properties of fundamental interest. However, it is not enough that a concept be fruitful. It must also have a convenient linguistic expression so that it can be used. For example, instead of “numbers only divisible by themselves and by 1,” we can use the term “prime number.” In the first place, many mathematically interesting assertions can thereby be made about numbers divisible only by themselves and by 1—that is, the concept ‘number divisible only by itself and by 1’ can be

a fruitful concept. Second, the former version is inconveniently long when constantly repeated. The same applies, if to a lesser extent, to numbers divisible by 2. For these, we have the more convenient expression “even numbers.”

It might seem that such abbreviations can hardly sustain the depth or richness of meaning necessary for our intellectual operations. But a moment's reflection makes it clear that the direction and scope of all our thinking is largely determined by what short concept terms are available. The relationship between concept terms and our thinking is in many ways similar to that between musical instruments and music. A composer develops his ability in accordance with the available possibilities for instrumentation. Thus, the broad outlines of his musical disposition are largely fixed for him, and these determine the paths taken both by creator and critic. A new instrument or a technical improvement of an old one (such as the introduction of the piano) has often opened the way to new possibilities. In the same way, the introduction of new concept terms opens the way to new possibilities for thought.

Our concept system is continually under development. To deepen our understanding of a science — whether philology, art history, mathematics, physics, or whatever — we must understand how the most important concepts in the relevant scientific discipline arose, recognize the aims they serve, and realize what changes they have undergone.

Precizing Catchphrases and Metaphors

The effect of an expression lies mainly in the thought it conveys. When someone says “It burnt to the ground” or “Democracy is outdated,” it is the alleged fact that we react to, assuming we take the expression as a genuine statement and not, as in this book, merely as an illustration of statements. It is the meaning that catches our attention — the form of the expression is ostensibly a matter of relative indifference. The force of an expression and its overall effect on an audience can, however, also depend on its form. This fact is exploited in various ways by preachers, politicians, poets, and indeed by anyone who wants to transmit something other than pure information, whether by a banal catchphrase or in the most illuminating of metaphors.

Both catchphrases and metaphors can be the products of high mental attainment. The former are usually designed specifically for their appeal

PRECIZATION AND DEFINITION

since the effect of catchphrases and slogans on their recipient's susceptibilities is a necessary part of their purpose, whether they are used in advertising or in propaganda. Metaphors, in contrast, usually arise from a person's heightened sensibility to the world of experience through language. However, as far as precization is concerned, catchphrases and metaphors both obey the same principles as do so-called literal forms of expression. Nevertheless, they are in some ways special. A metaphor can be a rich source for association and the play of fancy. An image can suggest many things to the mind, and a figurative expression can be used to convey a number of different thoughts. Metaphors, it can be said, do not *entail* impreciseness, but they invite it. It would, of course, be wrong to say that metaphorical expressions are by nature imprecise; on the contrary, a metaphorical expression may be far more precise than a "literal" one. This is again a matter of context.

However, the tendency of figurative language to foster impreciseness is something we must note. Just as we often approve of some opinion without careful consideration of our reasons, so may approval of a well-chosen metaphor stand in the way of a more exact understanding and appraisal of what is being said. A metaphor can be a means not so much of clarifying something — say, by putting some distinction in a new and telling way — but of covering up some obscurity or omission in one's thinking. Writings rich in imagery often suggest the presence of thought just below the surface, whereas the writer may not have actually progressed beyond the level of intuition in which his thoughts are still inchoate. The identification of catchphrases, slogans, and tendentious or bewildering imagery is thus essential for the prevention of uncritical and superficial thinking.

Consider the following analysis of a catchphrase. Suppose a student debating society discusses the slogan "The minority is always right" from Ibsen's *An Enemy of the People*. After much heated discussion, the ensuing division shows that the great majority are agreed that "the minority is always right." What can we propose in the way of a literal expression for a thought that can also be expressed more popularly, though less precisely, by "The minority is always right"? Here are a few possibilities:

$T_1 \equiv$ New thoughts that deserve acknowledgment generally arise
among the few and incur the opposition of the many.

$T_2 \equiv$ In social debate, the position with the weaker numerical support is generally the more tenable one.

$T_3 \equiv$ In social questions, it is generally the case that standpoints already prevalent among the plurality are less tenable than those prevalent among an especially qualified less numerous group that has as yet not succeeded in exerting its influence.

$T_4 \equiv$ The majority is seldom right when it opposes a minority that, judged according to its education, must be presumed to be competent in the given field.

As long as the student “majority” accepts some such precization, the paradox of their majority view can be resolved.

Deprecizing and Popularizing

If T_1 is a precization of T_0 , we call T_0 a “deprecization” of T_1 and the activity of finding deprecizations of a given expression, “deprecizing.” We call a presentation of a topic a “popularization” when, compared with a scientific (technical) presentation of the same topic, it requires less knowledge, a smaller vocabulary, less concentrated attention, and less depth of understanding. A popularization is not necessarily a deprecization of the technical presentation; whether it is or not depends on the circumstances. For example, if the technicalities with which a popularization is concerned are scarcely comprehensible to the public for which the popularization is made, the technical presentation can hardly be said to be less precise *for that public* than the popular version (although it might be for the initiated). In most cases, popularizations are so freely composed in relation to their corresponding technical presentations that they are generally incomparable with respect to preciseness.

For the exact study of a topic, the need for strict technical precization arises only when there is a demand for special concentration or depth of understanding. When applying the results of scientific study or presenting them to the lay public, the way the results are expressed must allow for an audience who may be unwilling or unable to concentrate for extended periods and who will probably be unfamiliar with most of the terminology. Because

PRECIZATION AND DEFINITION

of this constant shifting in our aims, we must be prepared to accommodate our presentations of a topic to the requirements of brevity in one case and technical accuracy in another. Our approach should depend on our objectives. We may have specific interpretations in mind that we are anxious to avoid, or we may be interested in producing a version suitable as a working manuscript in a research project.

When some subject matter is thought, from a technical standpoint, to be expressed satisfactorily by T_0 , the basis for this judgment lies, among other things, in the separate evaluations of several different sentences, T_1, T_2, \dots, T_n , with regard to how many and how serious the possible misunderstandings may be. The choice of expression clearly depends on a twofold consideration: avoiding both serious misunderstanding and excessive complication. For the reader, it is important to understand whether or not the subject matter is a popularized version. If it is, then the reader must realize how much of the subject matter the author glosses over or how far they have resorted to simplifying pictures or models not strictly representative of the ideas in question.

Newspaper articles on complicated topics tend to be highly popularized versions of the corresponding technical presentations. Headlines, especially, are meant to be “eye-catchers”; they are designed to grab the reader’s attention, arouse curiosity, or whet the appetite. A headline proclaiming “War cost \$1,384 billion” is designed to stop us in our tracks. The amount is sensational. Nevertheless, the statement is a severe deprecization of the article and of the sources the article draws on. Cost for *whom*? The allies? The Americans? The Axis powers and the allies? Does this include the Chinese War? Are both direct and indirect material destruction taken into account? More precise considerations will lead to difficult socioeconomic questions, which we need not delve into. A reading of the article shows us that the headline is to be understood as a deprecization of some expression such as “World War II (not including the war in China) cost \$1,384 billion in military preparations and damage to property.” Of course, quite different expressions can be popularized into the same headline, just as the expressions “The ship’s deadweight is 1,000 tons” and “The ship is 1,000 tons displacement” can have the same popularization: “The ship is a 1,000-tonner.”

III

Analytic and Synthetic Sentences

The Distinction

We can to some extent understand the way we use words as being fixed by rules of usage. In fact, our willingness to conform to rules in many ways simplifies our present discussion. In this chapter, I consider how some sentences can have their truth or falsity determined solely by means of rules of usage. For example, if an author gives a prescriptive definition of “displacement tonnage” by saying, “By a ship’s displacement tonnage I mean the weight of the water that a ship displaces when it floats,” then the following sentence *T* is true: “The greater a ship’s displacement tonnage, the greater the weight of the water it displaces.” To put it more exactly, if *T* occurs in the author’s text (given certain generally accepted rules for the use of the word *greater*), one can establish the truth of *T* without looking further. For instance, there is no need to go to the expense and effort of weighing the ship to see if *T* is true.

If the author of a text incorporating a prescriptive definition of “psychology” establishes that he is using the word in the same way as he uses the expression “the science of the self,” we can reject without further ado the sentence “Psychology is *not* the science of the self” should it appear later in the text. More exactly, if we interpret the later expression exclusively in terms of the usage rules the author has introduced, the sentence will express a false statement. We can ascertain this without carrying out any investigation into psychology. Similarly, if one person asks another, “Is it raining or not?” and the second person answers yes, this answer interpreted in a certain way is absolutely correct. The rules usually applicable to negatives imply that pairs such as “It is raining” and “It is not raining” express contradictory (mutually opposed) assertions. This again implies that

ANALYTIC AND SYNTHETIC SENTENCES

if “It is raining” is true, then “It is not raining” must be false (and vice versa). The word “or” is used in connection with the rules of disjunction, or alternation, so that “ A or B ” is true if A but not B is true and also if B but not A is true. It follows that if the rules for the words “not” and “or” are accepted, one must accept T , “It is raining or it is not raining,” as true. Meteorological observations play no part whatsoever in the truth value of T . All we need are the rules. If we cannot assume that an author follows the usual rules for “or” and “not,” then his meaning must remain unclear.

We see that once we are committed to established rules of usage, such as those found in dictionaries, we can compile a whole volume of sentences expressing truths and another of sentences expressing falsehoods with the dictionary as our only authority. These sentences, however, convey no other information than that words are used in this way rather than another. Because dictionaries are thus able to generate statements that look like ordinary factual assertions, practical difficulties can arise when expressions are formulated in unclear and, especially, original terminology. What looks like a bold, interesting statement may often be nothing but an overdressed triviality. As we have seen, many a portentous utterance turns out to be mere circumlocution or tautology.

Definitions of Analytic and Synthetic Statements (D_5). By “ X is a positive analytic statement” we shall mean the same as: “ X is true” follows from rules of usage. By “ X is a negative analytic statement” we shall mean the same as: “ X is false” follows from rules of usage.

The term “analytic” is often used as an abbreviation for “positive analytic” and “contradictory” or “self-contradictory” for “negative analytic.” The predicate “analytic” (resolving something into its parts) denotes that a truth value (a statement’s truth or falsity) is determined by resolving its expression into its component parts. The antonym of analytic is synthetic. The expression “ X is a synthetic statement” will mean here the same as the expression “ X is neither positive analytic nor negative analytic.”

To find out the truth or falsity of a *synthetic* statement, it is not enough to analyze the separate constituent parts of its meaning. Such a statement’s truth value cannot be fully established by reference only to the fixed rules of usage that its use presupposes, unless it happens to be especially *about* these

Positive analytic	Negative analytic
True synthetic	False synthetic

Figure 4. Forms of analytic and synthetic sentences.

rules. Something more is required, an investigation of some kind, a test, or some sort of observation.

Statements are only analytic or synthetic in relation to established rules of usage. Unless we can presuppose or expressly formulate some such rules, we cannot determine whether an expression is analytic or synthetic. An expression can be analytic in relation to some rules but synthetic in relation to others. The sentence “The Middle Ages ended before 1550” is analytic on the basis of the rule that says that “Middle Ages” means the same as “the period from 500 to 1550.” However, it is synthetic on the basis of the rule that says “Middle Ages” means the same as “that time in European history when Catholicism was the only form of faith.” But what shall we say of a sentence such as “I both like and dislike him”? Rephrased as “I like him and do not like him” it is clearly negative analytic on the basis of familiar rules for the words “and” and “or.” But we would hardly expect someone to deliberately infringe these rules; when we interpret the expression, we would normally reject that possibility without hesitation. The more plausible interpretation would be, “I like him in some respects and dislike him in others,” which makes it a synthetic statement (on the basis of normal English usage). Sentences such as “*U* is a precization of *T*” are synthetic expressions. They describe facts about the usage of language, facts that must be investigated when we want to test their validity. Prescriptive definitions, however, are neither analytic nor synthetic, nor are they true or false. They do not make claims about what is the case; they only propose or establish that certain pairs or groups of expressions are to be understood in the same way. Of course, insofar as prescriptive definitions *are* rules for usage, they can still be said to stand or fall as well-grounded and worthwhile prescriptions.

The different types of analytic and synthetic sentences can be illustrated as in figure 4.

Examples and Illustrations

Let us consider a few examples of the analytic/synthetic distinction.

1. *Human nature is always the same.* If we define the term “human nature” as “characteristics of humans that are always the same,” we get a positive analytic statement. If we define “human nature” so that it refers to human instincts and drives, the sentence is synthetic, assuming that we do not define “instincts” and “drives” in such a way that “always the same” enters into our definition. To arrive at a reasonably clear picture of the content of the synthetic assertion, we should precize the two vague terms “instinct” and “drive.”
2. *Pure water boils at 100° C, when the barometric pressure is 760 mm of Hg.* Because Celsius temperature is defined so that 100° C is the temperature at which pure water boils at a barometric pressure of 760 mm of Hg, the statement’s truth can be determined by means of the definition. It is therefore positive analytic.
3. *A horse is a vertebrate.* If we take the word “horse” in the zoological sense, the concept “vertebrate” enters into the definition; the statement is therefore positive analytic. However, the fact that horses are members of the class of vertebrates is not part of the definition of vertebrates. Therefore, the sentence can be interpreted as expressing a synthetic statement conveying the information that the class of vertebrates includes horses.
4. *A horse is not a vertebrate.* This is negative analytic according to example 3. Again, however, if the sentence were construed as a statement about what the class of vertebrates does not include, it could be taken as false synthetic.
5. *All horses have four legs.* This is a synthetic statement. It is a sufficiently *invariable* property of horses that they have four legs, but since a horse may be so unfortunate as to lose a leg and yet remain a horse, we cannot say that the property is part of the description of all horses, although we would still affirm that it is part of the *definition* of “horse.”

When people state some principle or assert some particularly general truth about human beings or life, they often make at least one of two as-

sumptions: (1) the utterance is an observation confirmable by experience or (2) the utterance is a positive analytic statement. Such utterances are easily confused, which often leads to their being used interchangeably. Consequently, we may feel that what someone says is undeniably true because the formal certainty of the positive analytic interpretation has become spuriously attached to what is, according to the synthetic interpretation, merely hypothetical. When asked to account for their views, defenders of such “quasi-synthetic,” “cryptoanalytic” assertions have a common tendency to retreat toward the analytic position, increasing the modesty of their assertion — and ultimately defending a mere triviality or truism. But as soon as pressure eases, they abandon caution and advance bravely in the direction of the synthetic again.

For the scientist, who is particularly concerned with making general statements that can stand up to rigorous evaluations, it is especially important to be able to recognize when a precization of an expression approaches the analytic. Since it is one of the aims of science to arrive at hypotheses that are both as general as possible and as secure as possible from disconfirmation, it would seem all too easy to arrive at generality and security by treating the statements expressing the hypotheses as analytic and, hence, unscientific. This is not to say that scientists have no use for analytic statements. They may find such statements useful, even necessary, especially where the conceptual connections between a number of new technical expressions have to be made clear. In addition, the continual striving for conceptual clarity in one’s own scientific system of thought is naturally of prime importance to the scientific researcher. He, perhaps more than any other, must become adept at distinguishing hypotheses from truisms and at spotting inconsistencies and contradictions, which is by no means an easy assignment.

To take an example, the following expressions appeared in a newspaper: “Everyone knows that a platform speech is very different from a radio talk” (T_0) and “It is something not all speakers realize” (U_0). Let us try out the following two precizations or specifications of U_0 .

$U_1 \equiv$ Not all speakers realize that everyone knows that there is a big difference between platform speeches and radio talks.

$U_2 \equiv$ Not everyone realizes that there is a big difference between platform speeches and radio talks.

T_0 and U_2 are contradictory according to the commonsense notion of contradiction, but not so T_0 and U_1 . The difference between “contradiction” in a looser and more imprecise sense and “contradiction” as a well-defined term in logic comes out clearly in the example. Technically, a contradiction between T_0 and U_1 exists only if we assume some such premise as “If everyone knows X , then all speakers know X ” (any speaker is a someone). If we accept this premise, the contradiction becomes explicit. Of course, when we use the expression “everyone knows,” we seldom mean *everyone* or even any especially large class of people. Usually we are referring to the same group in which we include ourselves as members, such as the group of “all educated and informed people.” If, as is probably the case, we are willing to concede that some speakers are not members of this group, then T_0 and U_1 are not contradictory, even from a commonsense point of view.

Expressions that approach the meaningless without actually reaching it, or that express something interesting only in a special context, play a large part in ordinary life. Take, for example, the expression “Real democracy is a just form of rule.” If we ask what definition of “real democracy” is assumed here, we will likely be told that democracy has to do with justice—in its system of voting or in the various kinds of opportunities open to individuals. In that case, we could reformulate the sentence as “Real democracy, which is a just form of rule, is a just form of rule,” which is pointless. But if all mention of justice is carefully excluded from the definition of “real democracy,” the expression may become interesting and arguable.

The same can be said for a sentence such as “It is always wrong to tell a lie.” If one person makes this claim and another brings up the case of doctors who give incorrect information to terminally ill patients, or other cases of white lies, the first person may try to oppose the objection by claiming that cases such as these are not really cases of lying: lying occurs only when one tells untruths against one’s better judgment to obtain some morally unwarranted advantage. By drawing on a special definition of “lying” that causes the original statement to convey nothing, it is possible to stand by what one has said without risk. As a further example, consider the sentence “Very high intelligence is a rare occurrence.” The expressions “high” and “low” are generally defined in relation to an average. If the apportioning of intelligence quotients follows the standard pattern for such distributions, it turns out that high intelligence *must* be rare. If an intelligence quotient of about 140 is common one year, then it will no longer be “very high” since

the average would then move in the direction of 140. Here again, whether the statement is analytic or synthetic depends on what definition one accepts when making it.

Drawing Analytic Conclusions

In this section only, I will use the word “analytic” to refer to the “drawing of conclusions” rather than the characterization of expressions. By “drawing a conclusion” I mean the transition from premises to conclusions — not the premises or conclusions themselves.

Premise P_1 : All human beings are mortal.

Premise P_2 : Smith is a human being.

Conclusion: Smith is mortal.

The conclusion emerges as a result, or product, of P_1 and P_2 .

Let us examine several additional cases.

1. Premise: The water has reached 100° C.
Conclusion: The water has reached the boiling point.
 2. Premise: Copernicus was born in 1473 and died in 1543.
Conclusion: Copernicus was born during and died after the Middle Ages.
 3. Premise: All sea serpents live in the sea.
Conclusion: There are sea serpents.
-
1. If we assume a normal definition of Celsius temperature, the conclusion is incontestable and valid.
 2. If the Middle Ages are defined as the period from 500 to 1500, this is an analytic conclusion.
 3. If we introduce a rule of usage for the word “all” such that the expression “all A ’s are B ” is only to be used if there exists at least one A , then this conclusion is also logically incontestable.

Corresponding to these three conclusions are the following three positive analytic statements (assuming the definitions already mentioned):

ANALYTIC AND SYNTHETIC SENTENCES

1. If water has reached 100° C, then it has reached the boiling point.
2. If Copernicus was born in 1473 and died in 1543, then he was born in and died after the Middle Ages.
3. If all sea serpents are in the sea, sea serpents are to be found.

Thus, the drawing of various conclusions can be formulated in conditional 'if . . . then' sentences in which the 'if' clause constitutes the premise and the 'then' clause the conclusion.

Definition of an Analytically Drawn Conclusion (D_6). The expression "X is an analytically drawn conclusion" here means the same as the expression "X is a conclusion that gives a positive analytic statement of the 'if . . . then' type with the premise as 'protasis' and the conclusion as 'apodosis'."

IV

Agreement and Disagreement

A Theory of Two Common Misunderstandings

In this chapter, I shall consider certain kinds of misunderstandings. They will probably seem rather trivial; indeed, most of them are so commonplace that it might seem that the time and space devoted to them could have been spared or better spent. However, since our purpose is to give the student a practical grasp of the theory of interpretation, we must do more than merely note and account for the various problems. The reader must become entirely familiar with them and also make the most of the opportunity to practice the techniques of avoiding misunderstandings.

When we claim to be in agreement with someone about something, our agreement is not about the expression but about what we take to be expressed. One person may say “Il neige,” another “Es schneit,” but if we agree that it is snowing, we agree with both of them. In that case, our agreement clearly depends on a prior, or implicit, agreement about how these different expressions are to be interpreted. We can declare our agreement when in fact no such agreement exists or when no such agreement is being expressed at the time. Although speaker and listener are verbally in agreement, they may not be at all agreed in substance. Often it is just that people *seem* to agree. The same goes for disagreement. These kinds of misunderstandings are no doubt very common. In any case, it is certain that a large part of our daily discourse, personal as well as political, is conducted without sufficient guarantees that the participants are really agreed or disagreed on what they believe they agree or disagree on.

Assume that person *A* utters the sentence T_0 and that by T_0 he wants to present some factual claim to person *B*. If *B* answers *A* affirmatively, we say that *A* and *B* are in *verbal agreement*; if negatively, then they are in *verbal disagreement*.

AGREEMENT AND DISAGREEMENT

For example, consider the following dialogue:

1. A: The newspaper is thin today (T_0).
2. B: Do you think so? It doesn't seem thin to me.

This is a case of what we will call “verbal” disagreement. When we say that people are in verbal agreement or disagreement, we do not imply that we have determined whether they have in fact actually agreed or disagreed, i.e., whether whatever ostensible agreement or disagreement exists is real or pseudo. We must first find out what A is affirming and B denying. Imagine that the conversation continues as follows:

3. A: But it has only six pages (T_1).
4. B: Yes, I know.
5. A: I call that thin.
6. B: Oh! So do I, but I thought you meant it was thin in news today (T_2).
7. A: No, it's not *that*.

According to (4), it appears that B has misunderstood A . According to (3), (4), and (5), it seems that the verbal disagreement at (2) was not a reliable indication of B 's attitude to what A wished to express in (1) and that he precized in (3). Statement (4) shows that A and B are agreed in substance, despite B 's declaring his disagreement with A . We can now establish the following: speaker A utters T_0 and means by T_0 the same as he means by T_1 , T_1 being a precization of T_0 . Listener B declares himself in agreement with what he believes A means by T_1 . On the assumption that A and B interpret T_1 in the same way, there exists an agreement in substance. Thus, we see that the verbal disagreement in (2) is misleading.

Definitions of Pseudo-Agreement and Pseudo-Disagreement (D_7). Listener B is in *pseudo-agreement* with speaker A if B declares himself in agreement with A when A utters T_0 , but they are really in disagreement. Listener B is in *pseudo-disagreement* with A if B declares himself in disagreement with A when A utters T_0 but they are really in agreement. Here “really in agreement” means being agreed about the truth of the assertion that the speaker has meant to express.

The ways we have for deciding what a person means by an expression are far from adequate, especially when the person himself is not available. Thus, when asserting that real agreement occurs, we should add the qualification “in light of the available evidence.” Further investigation may always bring to light new evidence that can cause us to reverse an assumption of real agreement or disagreement.

Let us now return to our example. In (5) we still do not know what *B* thought *A* meant by T_0 . For this we need (6). Up to this point, *B* has taken T_0 to be tantamount to T_2 : “The newspaper is thin in news today.” Statements (1) through (7) show that *A* and *B* are agreed about T_1 , and the emphatic “*that*” in (7) seems to show that they are also agreed about T_2 . In other words, *A* and *B* are agreed not only about what was really at issue but also about what *B* thought was at issue. Now consider another case in which the agreement about what was really at issue is pseudo-agreement:

1. *A*: The newspaper is thin today (T_0).
2. *B*: Yes, it has only six pages (T_1).
3. *A*: I meant it was thin in news today (T_2).
4. *B*: What? It has three pages of sports.

In (2) we have a verbal agreement insofar as *B* answers affirmatively to what he believes *A* means. In (3), *A* precizes his expression; then *B* does not agree with what he takes *A* to mean in this precization. Assuming *A* and *B* interpret T_2 in the same way, there is only an apparent agreement in (2). In light of the available evidence, there is no ground for assuming anything else.

Let us suppose the dialogue continues thus:

5. *A*: I meant, it's thin in political news today.
6. *B*: There I quite agree with you.

In light of (1) through (6), it would seem that there was both verbal and real agreement about T_0 in (2). More information may possibly induce us to alter even this conclusion. For us to consider the conclusion adequate, the succeeding precization must be both reasonable and strong, and such a precization is not always easy to come by.

The connection between degree of precization and risk of pseudo-agreement or pseudo-disagreement is very close. The more precise an expres-

sion is in relation to the speaker's language customs, the greater the possibility of an agreement or disagreement that is real and not only verbal. For example, when two amateurs discuss space rocketry and one of them precizes in technical terminology that would normally be used by a professional to make very precise utterances, the ensuing misunderstandings will likely be much worse than if they had kept to everyday language. In other words, the rule is that we should use a precization that is appropriate for the context at hand.

Examples of Pseudo-Agreement and Pseudo-Disagreement

1. A: The city library is bigger than the university library (T_0).
2. B: No, on the contrary.
3. A: The city library has more books than the university library (T_1).
4. B: Yes, of course, but as an architect, I am thinking about the building itself, not about the books. I thought you meant that the city library has more floor space than the university library (T_2).
5. A: But when talking about libraries, one should surely keep to the conventional way of talking about them. When talking of libraries, we naturally think in terms of books.
6. B: I think usage in this case is altogether too imprecise to permit such a decision.

Statement (4) shows there is spurious disagreement in (2) because

- a. A and B are in verbal disagreement about T_0 .
- b. By T_0 , A means T_1 and not T_2 .
- c. A and B are really agreed about T_0 .

But now consider the following exchange:

1. C: The city library is bigger than the university library (T_0).
2. D: Yes, the city library has more floor space than the university library (T_2), but it has fewer books.
3. C: There you're wrong; the city library has less floor space. I meant that the city library has more books than the university library (T_1).

Statement (2) is a case of verbal agreement, but from (3) it transpires that the agreement at (2) was actually a pseudo-agreement.

- a. *C* asserted T_1 with T_0 .
- b. *D* declared himself in agreement insofar as he interpreted T_0 as T_2 .
- c. *D* considers T_1 to be untenable.

In the following dialogue, we see an example (2) of how pseudo-agreement occurs:

- 1. *A*: Through Wergeland's action, Jews were allowed into Norway (T_0).
- 2. *B*: No, Norway has never had a law directed against Jewish people (T_1).

B's saying no shows that verbal disagreement occurs at (2). But *B*'s expression suggests that the verbal disagreement conceals real agreement. Note that *A* speaks of "Jews," and *B* of "Jewish people." The term "Jews" can be precized in a number of ways, among them the following:

- $a_0 \equiv$ Jews.
- $a_1 \equiv$ Upholders of the Mosaic Law.
- $a_2 \equiv$ Jewish people.

The precization offered by a_2 is rather weak because there are many ways to interpret the term "Jewish people"; for instance, in terms of descent or in terms of adherence to custom and law, as in a_1 . Person *B* seems to interpret *A* as saying:

$T_1 \equiv$ Through Wergeland's action, Jewish people were allowed into Norway.

However, if *A* really means something like a_1 and not what T_1 expresses, the disagreement is actually pseudo-disagreement, assuming that *B* would accept the following:

AGREEMENT AND DISAGREEMENT

$T_2 \equiv$ Through Wergeland's action, upholders of the Mosaic Law were allowed into Norway.

If A and B are well schooled in history, then B will probably assume that by "Jews" A means "upholders of the Mosaic Law." Jewish people of the Evangelical Lutheran faith were allowed into Norway before Wergeland's action.

The following shows an example of confusion between a pseudo-agreement and a difference in interpretation:

1. A : Wergeland obtained entry into Norway for Jews.
2. B : I know.
3. A : By "Jews" I mean people of Jewish descent.
4. B : Oh! I understood you to mean upholders of the Mosaic Law.

Statements (3) and (4) show that A and B had different concepts of 'Jew' in mind. Of course, this is not enough to show that there is pseudo-agreement. For that, we need to know how B views A 's interpretation of (1).

Below is an example of conflation of pseudo-agreement and disagreement about something other than T_0 :

1. A : The United States deservedly beat England in New York yesterday.
2. B : Yes, the American center forward was dazzling.
3. A : No, I didn't mean that. The American team seemed to me better all around; no single player was particularly outstanding.
4. B : I don't agree.

Statements (1) through (4) are not susceptible to any precization that could result in a demonstration of pseudo-agreement. Statements (3) and (4) show that A and B are really disagreed about the American center forward, but this is not enough to enable us to decide whether it is also a case of pseudo-agreement about T_0 , contrary to what one might unreflectively suppose.

Our interpretations of one another's expressions tend to exhibit deviations that vary according to the uncertainties in our language. However, this in itself does not necessarily lead to pseudo-agreement or pseudo-disagreement. If we use an expression to assert something and the expres-

sion lends itself to several reasonable precisizations, we would often accept the truth of all or most of these precisizations. If by T_0 we only affirm the truth of T_1 , this does not exclude the possibility of our also affirming the truth of T_2 , T_3 , and so on.

Applications of the Theory

Pseudo-disagreement often arises when we are familiar with only *one* established authority and we have neglected to check our assertions with other authorities. Suppose *A* reads in a geology textbook that there were three Ice Ages in the Pleistocene epoch, whereas *B* reads in a similar work that there were eleven. Both *A* and *B* might reasonably conjecture that geologists are disagreed and that their disagreement is more than just verbal. However, they would in fact be wrong to assume that the term “Ice Age” stands for only one concept shared by all geologists. The number of Ice Ages tends to differ from one expert to another. The disagreement can be pseudo-disagreement. Some geologists argue that each Ice Age includes several “more or less significant forward thrusts and subsequent spasmodic withdrawals of ice.” Thus, it becomes only a question of words whether we count a forward thrust as an Ice Age in itself or only as a spasm in another Ice Age. This is chiefly what causes the number of Ice Ages to vary as much as it does among scientists. However, there is less disagreement about the facts, and it is generally agreed that there have been at least three major Ice Ages.

Nevertheless, one would think that there should be no real call for terminological disagreement among scientists. It should require little effort on their part to keep up to date with one another’s terminology. We do not expect scientists to maintain statements of the kind “There have been x Ice Ages,” in which x varies from three to eleven. Rather their claims are of the form “There have been x Ice Ages,” in which it is assumed that the term “Ice Age” means such and such (y). When y varies, x also varies. Once this is made clear, we can see where the disagreements lie.

Popularization of science, indeed any attempt to transmit scientific ideas beyond an immediate scientific circle, tends to invite pseudo-disagreement. The words used in popularizing some idea or concept must be borrowed largely from a vocabulary built on relatively chance associations—not one that has evolved rationally. The potential for attaining a high

AGREEMENT AND DISAGREEMENT

depth of understanding of the ideas or concepts must inevitably be lower for the lay public than it is for trained specialists. From this, of course, we do not conclude that popularizing is an evil, but only that readers of popular versions should be aware of the special pitfalls.

It would be rash to assume generally that disputants have an unconditional desire to avoid pseudo-agreement and disagreement. On the contrary, other considerations may cut across the need for consistency and agreement, such as the requirements for persuasion. We say of two people who support one another in a debate that they are "on the same side." However, it is often necessary to present the standpoint of the side in such a way as to make it especially clear that its adherents are in fact on one side and in opposition to the standpoint of another side. Any differences among the supporters of one side must not be allowed to come into the open; the supporters of that side must seek a common platform and target.

The main considerations in social or political organizing are those of unification and activation of the group or side. As often as not, what is needed is deprecization of the expressions of the party aims because the points on which members of the supporting group differ among themselves will have to be omitted or transcended to avoid division or splits within the group itself. Here we can readily appreciate the usefulness of catchwords and slogans for those interested in maintaining party solidarity. The use of eulogisms and dyslogisms (expressions with strong positive and strong negative emotional emphasis, respectively) tends to affect the intelligibility of a standpoint, even among its own supporters—a fact that can be exploited to produce deliberately inculcated pseudo-agreement within the group. For purposes of unification, pseudo-agreement can be as effective as real agreement. A clever party organizer keeps a watchful eye on internal differences in order to repair the expressions of the party aims in such a way that they continue to gloss over such disagreement.

In addition to this, the party or side must confront its opposition with as powerful a position as it can muster. For this, the spokesperson or organizer tries to make the differences between the opposing sides or parties appear as deep as possible, thereby making the conflict more clear-cut. This most likely requires gross simplification of the opponent's view. Adolf Hitler argued that part of a great leader's genius is the ability to make opponents of very different kinds appear as if they belong to the same category. This principle applies in every sort of dispute, whether it is a politi-

cal or a family one: there must be no doubt which side you are on, hence you must avoid touching on any points on which the opposing groups may agree, and reinforce all those on which they are known to disagree. The end result is an extensive illusion of disagreement.

The exposure of spurious agreements becomes increasingly dangerous to a group when its members are unable to combine energetic action with a critical analytic attitude. In fact, if the group's members were better trained in these respects, there would be less need to achieve the group's aim by resorting to pseudo-agreement or pseudo-disagreement. Of course, conscious use of such methods is a form of deceit.

The French philosopher Le Bon (1931) conducted an investigation, directed mainly at politicians, that was designed to produce a clear survey of the different possible precizations of "democracy." Some of the results he obtained can be used to illustrate several points in our discussion. Le Bon was not looking for evaluations of democracy, but for precizations of the term "democracy." However, since politicians are leaders of groups or nations, and since they must be expected to further the interests of the people they represent, the answers they offer will probably reflect the aims of their constituency more than an arbitrary questioner's. The answers Le Bon received confirm this assumption.

Let us consider the answers given by Herriot (a democrat) and Mussolini (a fascist). Herriot said, "Democracy is the policy of government that tries to bring morality and politics closer to one another until they coincide" (translated from Le Bon 1931: 290–301). We can add to this another of Herriot's formulations to make his meaning clearer: "Democracy is the form of government which tries to establish that view of justice which comes not from nature, but from reason" (ibid.). Instead of describing a form of government, Herriot gives a distant *aim* that democrats try to realize with the help of the democratic form of government. The aim in question is one that most people, whether democratically or undemocratically inclined, will find almost impossible to reject. It then seems an obvious conclusion that one must also accept the stated *means* of acquiring the aim, that is, a democratic form of government, especially when one learns that "democracy" designates precisely the form of government that serves the accepted purpose. Thus, Herriot's way of expression is well suited to eliciting a positive attitude, not just to the word "democracy," but also to those who claim to be democrats. Furthermore, by bringing in the term "moral-

ity," Herriot manages to make it almost impossible to reject democracy, for people generally read into this term precisely the morality that they themselves subscribe to. Thus, two people holding different and to some extent incompatible moral norms may nevertheless justifiably claim to be democratic in Herriot's sense. However, what Herriot most likely meant to say was that democracy is that form of government that tries to bring politics into line with *his* own notion of morality (a variation of Christian and humanist morality). By slurring over this crucial detail in his specification of democracy, Herriot may attract support, but undoubtedly a great deal of it will consist of pseudo-agreement with his actual views.

Mussolini's answer to the question was, "Democracy is the form of government which gives, or tries to give, the people the illusion of their own sovereignty" (translated from Le Bon 1931: 291). As in Herriot's answer, this contains a statement of the alleged aims or desired effect of a system of government with no indication of what that system of government is, except that it is designed to promote those aims and have those effects. In general, the more neutral way of characterizing a form of government is to describe the way it functions, not what its proponents or opponents claim it will achieve. The important differences between political systems exist much less in the ultimate aims they profess than in the policies they form in pursuit of more immediate ends. By identifying ultimate aims and policies, we seem to impart to the former the disagreement that belongs more correctly to the latter. As a catchword, "democracy" can have either a strongly positive or a strongly negative emotional force depending on one's selection among the range of such notorious indeterminables as "ultimate" purposes and "real" motives. In either case, there is nearly always something plausible about the resulting description of democracy, so that one's attitude is, as required, easily swayed in one direction or the other. Whatever political viewpoint one holds, the view Mussolini calls "democracy" will generally be objectionable. By describing democracy in these pejorative terms and implying that they adequately characterize the view held by his opponents, he manages to create an effective political platform, but he does so by producing the illusion of disagreement.

In conclusion, the reader might consider whether he takes the following to be a fairly neutral definition of the democratic form of government: "It is a form of government in which the rule of the state is legally bound to the individual members of the body politic as a whole."

Pseudo-Agreement in Argument

Often a given expression can express a number of different assertions, some of them easy to argue for but uninteresting, and others that, if they were true, would be of considerable interest but which, in fact, cannot be argued for or justified (see chapter 5, pp. 84–95 on tenability and relevance in argument). It is then tempting to argue for the exciting but unconfirmable assertion by conflating it with the dull but confirmable one. We can argue for U by asserting T , and for V by asserting U , but either we obscure, or fail to see, that in the first stage of the argument we have given U the sense of U_1 and in the second stage we have given U the sense of U_2 , although T may not be a valid argument for U_2 , nor U_1 a valid argument for V . The falsity of such conclusions can be rendered schematically below:

1. U because T
 V because U
2. U_1 because T
 V because U_2

In (1) U is not precized, and we arrive at the conclusion V on the basis of T and U . In (2), however, U is precized and the two parts are seen to be logically disconnected.

The relationship between pseudo-agreement and this kind of mistake is especially clear when we consider the thoughts not of two people but of one. Instead of the thoughts and judgments of different people, A and B , we have simply the different thoughts or judgments, A and B , of one person, P . In judgment A , person P adopts the U_1 sense of expression U , while in judgment B , he adopts the U_2 sense. The resulting pseudo-agreement between judgments A and B is one that people commonly make, especially when arguing for a standpoint under certain explicit reservations. Those reservations may be made explicit by means of a precization, U_1 , but later on be forgotten or lost sight of and a conclusion arrived at from the unqualified U , which would not at all follow from the precization U_1 . We can illustrate this with a simple example:

$T \equiv$ Water has a specific gravity of 1.

$U \equiv$ The water in Oslo Fjord has a specific gravity of 1.

AGREEMENT AND DISAGREEMENT

$V \equiv$ Anything that has a specific gravity of more than 1 will sink in Oslo Fjord.

In U we have to assume that “water” means ‘chemically pure’ water; otherwise U cannot be justified by T , in which “water” does stand for ‘chemically pure’ water. We can then precize as follows:

$U_1 \equiv$ Chemically pure water in Oslo Fjord has a specific gravity of 1.

$U_2 \equiv$ Seawater in Oslo Fjord has a specific gravity of 1.

Of course, U_2 is invalid because the specific gravity of seawater is greater than 1; hence, some things will float in Oslo Fjord even if their specific gravity exceeds 1.

Imprecise pronouncements are often made with an air of great conviction, yet without the support of any argument. If those who make them are subjected to criticism, they frequently fall back on the face-saving tactic of saying that the criticism implies more in their original expression than they intended by it. They might argue, “There were qualifications that were assumed, of course; I would not be so bold as to claim. . . .” Imagine a situation in which A asserts T_0 , which can be sensibly precized in the direction of T_1 . Person B , taking A to *mean* T_1 , declares himself in disagreement and puts forward a counterargument. Then A says that B has misunderstood him and that they are probably only in apparent disagreement; he only meant T_2 . So the discussion ends.

In a case in which the strong but unjustifiable argument expressed in T_1 can be used by A to support his cause, A will probably, and wisely, prefer to use the less precise T_0 and keep the trivial but justifiable argument expressed in T_2 as a backup in case he meets a critic. If person A does encounter criticism, he then has no need to retract anything and can always claim to be less bold than the critic supposes.

Surveys of Arguments for and Against a Standpoint

Psychological and Philosophical Background

Before deciding on any difficult course of action, we normally weigh the various considerations that we take to be relevant and base our decision on an estimate of their relative importance. The same approach can be applied to any arguable issue. Arguments are appeals to rationality in light of the facts. In the following, I shall mean by “argument” the element of our expressions that carries the power to convince people in rational discussion, that is, their factual content and consequences.

One can weigh arguments for and against something immediately before coming to a conclusion by reviewing all the relevant considerations made up to that point. It is more common, however, for arguments to acquire their force or weight over a period of time. This is usually what happens, for instance, when people vote at elections. Few of us actually make a survey of the arguments that have led us to the opinions we hold when we cast our vote. If we are suddenly asked what arguments we have used to arrive at our present decision to vote for a certain party, the inadequacy of our answers will often surprise us. We may find that the feeling of certainty and confidence we have about the rightness of our opinions is not borne out by the arguments we are able to produce in their favor.

In this chapter, I will give examples of “surveys” of arguments for and against a standpoint or a decision. Sometimes because of the complexity of particular decision problems, it will be impossible to give a full survey of the relevant arguments. But remember, completeness in itself is not a necessity. If we already understand the background of a certain decision and the decision is one with which we disagree, we need only concentrate on those phases of the argument in which the differences arise. It is often sufficient to distinguish the main outlines of an argument without going into all the details.

We must first distinguish between reason (*ratio*) and motivation (*causa*), that is, between what speaks in favor of a standpoint (pro argument) and the psychological, sociological, and other causal factors that motivate a decision. Our reasons can be valid or invalid (cognitively adequate or inadequate), but our motivations merely *operate* on our actions or decisions. Generally, our motivations cannot be described as valid or invalid. A person may give as a reason for his leaving for Madrid in January that he wants to feel the warmth of the sun. As an argument, the reason is scarcely valid because in January it is usually rather cold in Madrid. But the reason given may not be identical with the motivation. What motivates the projected visit may be a strong inclination to travel, and this is something that is neither valid nor invalid.

Psychology teaches us that the motives of our actions are in varying degrees concealed from us, that many of our avowed motives are what the psychologist calls "rationalizations." In general, we will maintain that a belief in the validity of certain arguments is partially, if not wholly, the motive for our deciding as we do. But if there is no connection between our reasons and our motives, the justification we give is at best misleading. Many of the considerations that we believe arise from our own free will are seen in retrospect as attempts to find arguments in favor of a conclusion we have already reached. However conscious we are of our own motives, we must always allow for the psychological fact that in accepting a conclusion, well-grounded or not, we deprive ourselves to some extent of the capacity to entertain counter arguments. The security of a position, the pleasure even, of being convinced about something is sometimes bought at the expense of blindness to possible refutations. We should therefore try to spend more of our energies on pursuing counter arguments than on looking for fresh pro arguments for some previously arrived-at conclusion. We have to reverse the normal selective habits of our minds, a mental tendency that, in this case, weakens the rationality of our views and, hence, their acceptability in serious debate.

If we base an important action on a conclusion arrived at by argument and it is against our own interests to reject that conclusion, we may simply lose interest in counter arguments. But we may go further, to the point at which we are in danger of declaring that anyone who holds an opposing view must be intellectually, even morally, subnormal. This distressing tendency can be prevented if, in establishing our own conclusions, we always test our views according to the most qualified criteria available. An added

advantage of this procedure is that by evaluating possible objections to our own views, we are better prepared to criticize objections that might be brought against them.

Intellectual honesty can, of course, go against the grain of personal desires and interests. The more we acknowledge the force of counter arguments, the greater the perseverance, energy, and willpower needed to act according to reason rather than inclination or interests. Acknowledging the reasonableness of an objection to one's proposed course of action can easily lead to doubt and then to hesitancy. Whether one acts from principle or simply from inclination, the prompt and effective accomplishment of one's purposes may therefore depend on the ability to turn a blind eye to counter arguments.

The ability to envisage arguments for and against a course of action is often subject to mistrust. It is said that people who are always analyzing proposed courses of action dissipate their energy and find themselves paralyzed, insofar as they can always find as many reasons for not doing something as they can for doing it.

Perhaps reason *can* be a stultifier; certainly it is a ready source of excuses. Unless allied with our capacity to judge the relative merits of arguments for and against something, reason is easily misused. But that does not mean that we should avoid looking for arguments, and in particular for counter arguments. Yet someone who is completely convinced that his own plan of action is the only proper one may find it difficult to consider arguments for rejecting this plan when expediency urges him to act otherwise. In justifying this action, he must leave a great deal to chance.

Sensitivity to the reasons for actions is often felt to be incompatible with the effective fulfillment of responsibility and the single-minded devotion to one's ideals. Thus, intellectual clarity in the weighing of considerations comes to be looked on as a sign of cynicism and lack of conscience. Furthermore, every time a counter argument is ignored, the premises on which a decision to act is based become that much more simplified. Yet it should be clear that the more we are able to act consistently and unhesitatingly on the basis of complicated premises, the less need there is to distort these premises when it becomes necessary to justify our decisions.

Most of what I have discussed here also applies to taking positions on issues not directly related to choices of action. In understanding theoretical standpoints, it is also important to be able to detect counter arguments that

SURVEYS OF ARGUMENTS FOR AND AGAINST A STANDPOINT

are superficially expressed or even completely hidden in order to see whether the path to the conclusion is as clear-cut and straight as the beguiling expressions suggest.

The habit of looking at a question from all possible angles and of reviewing all relevant pro and con arguments plays an important role in intelligent behavior. Since circumstances are liable to undergo significant changes, one must be on the lookout for corresponding shifts in emphasis and for the existence of new arguments. The less we review the considerations governing our decision making, the greater the risk that we will continue to act according to an earlier decision when some new fact makes it unintelligent for us to do so. Any self-confidence and effectiveness we may gain by selective vision and intellectually indefensible treatment of the counter arguments only makes matters worse whenever fresh considerations arise. Applying this principle to politics, for example, it seems that the acceptance of a position on the basis of a pro and con evaluation would serve to strengthen the tendency toward a peaceful wielding of power, whereas a reluctance to entertain counterarguments could reinforce an unciliatory and vengeful frame of mind with all its grim consequences.

Pro et contra dicere (to speak for and against) can be understood as a special method of thinking. It is a method that falls exactly in line with the working principles of scientific research, and it characterizes the scientific attitude toward questions that cannot be definitely answered in the way that is possible in the exact sciences. In ancient Greece, there lived a great thinker, Carneades (c. 214–129 B.C.), who placed method at the center of his philosophy. Carneades accepted no standpoint as absolutely certain: one could always find something to say against a given position. So, too, with the alleged falsity of a given standpoint, one could always find *something* to say in its favor. Carneades was bold enough to argue for and against everything, despite the ill will he thereby drew upon himself. He also believed that one could act promptly and effectively, merely by considering some standpoint more *probable* than others. He considered absolute certainty to be as unnecessary as it was unattainable.

Whether or not Carneades was right, we can raise the objection, from a psychological standpoint, that with the limited resources of intelligence and effectiveness we are able to draw on, we do run a great risk of misusing the *pro* and *contra* method of arguing. We must therefore be attentive to the possible pitfalls.

One such pitfall occurs when, in reviewing a complicated string of arguments for and against the matter in question, we tend to normalize the weight attached to each argument so that when aggregating, the strong arguments grow weaker, and the weaker ones stronger. Even when a decision involves complex argumentation, it may be that only a few simple steps in the chain are the conclusive ones. The spreading of the load, then, can mean that we lose sight of the essentials. As I have remarked before, reason must be allied to a capacity to judge the relative merits of arguments for and against something. Practice is needed to sustain the alliance. One must accustom oneself to the thought that some arguments are more pertinent or more conclusive than others, while remembering that none are entirely without significance.

Pro et Contra and Pro aut Contra

Let us distinguish between two forms of surveying arguments: those that are *pro et contra* (for *and* against) and those that are *pro aut contra* (for *or* against).

A *pro et contra* survey is a straightforward survey of (1) the most important arguments that, in a given field of discussion, are or will most likely be adduced *in favor* of an assertion *and* (2) the most important arguments that, in the same area of discussion, are or will most likely be adduced *against* the same assertion. This type of survey contains no conclusion. The separate arguments are never weighed against one another. The object is merely to set out the arguments as though they were intended for an outside observer of the discussion. In practice, of course, there is usually too little time to ascertain all the arguments that have been or could be made both for and against an assertion; thus, fully satisfying requirements of (1) and (2) is usually impracticable. We must then be content with noting down whatever arguments we can remember or think of with regard to the discussion.

A *pro aut contra* survey is one with a conclusion. It consists of the most important arguments that, according to the surveyor or some person or group, have been or will likely be adduced for *or* against an assertion. A survey of this type ends in a conclusion and implies, accordingly, that the arguments have all been weighed against one another. We will assume here that the *pro aut contra* surveyor considers the conclusion to be adequately derived from the arguments in its favor.

SURVEYS OF ARGUMENTS FOR AND AGAINST A STANDPOINT

All *pro et* and *pro aut contra* surveys are preceded by a reasonably precise expression of the statement that is being argued. This is the expression of the issue, or the “issue expression,” which we will designate F_0 . Both types of surveys lay out the arguments themselves, but the *pro aut contra* survey also adds a conclusion.

A *pro aut contra* survey should contain no contradictions; in particular (1) no argument should arise both as a *pro* argument and as a *contra* argument, (2) all the arguments should be compatible with one another, and (3) no assertion should implicitly or explicitly be both accepted and rejected. Requirement (3) can be understood as a special case of requirement (2).

The following caricature of a *pro aut contra* survey illustrates the importance of compatibility. Suppose Mr. A’s lawyer draws up a survey:

$F_0 \equiv$ A is bound to compensate B for the dog-eared book.

$C_1 \equiv$ A has never borrowed any book from B.

$C_2 \equiv$ The book belongs to A, not to B.

$C_3 \equiv$ A has already returned the book to B intact.

$C_4 \equiv$ The book was already dog-eared before A got it to B.

The various *contra* arguments here are not all compatible with one another. Statements C_1 and C_4 are incompatible, as are C_1 and C_3 , at least if we assume that A cannot have given the book back to B without having *borrowed* it (which is not necessarily the case). To accept C_1 thus means to reject C_3 and C_4 and vice versa. We can also note that C_1 and C_4 infringe requirement (3) that no assertion should implicitly or explicitly be both accepted and rejected, since the assertion that A has borrowed a book from B is explicitly rejected in C_1 and implicitly accepted in C_4 . This *pro aut contra* survey can therefore be rejected out of hand. However, there is nothing to prevent C_1 through C_4 from being included in a *pro et contra* survey. *Pro et contra* surveys are not restricted to one person; they can contain the actual or possible arguments of a number of different people, even over a long period of time. In a *pro et contra* survey, it is reasonable for the same assertion to be both accepted and rejected; an assertion and its negation can both appear as arguments.

Suppose some people support a reform because they consider that it will strengthen the country’s economy, while others oppose it because they consider it will not. The argument “The reform will strengthen the coun-

try's economy" can occur as a pro argument and the argument "The reform will not strengthen the country's economy" as a contra argument. Even when a *pro et contra* survey contains the arguments of only one person, it may still contain contradictions, which are especially likely to arise when the arguments emerge at intervals over a long period of time. Naturally, however, our expectation for contradictions is lower for the single person case than for the multiple persons case.

In *pro et contra* surveys, one may also find arguments occurring both as pro and as contra arguments. Some people, for instance, have recommended that a university syllabus not include compulsory courses. One of the primary arguments is based on the assumption that not having to take certain classes makes it easier for students to work at places other than the university (T_0). Others, however, see it as an advantage for students to be required to attend the university. The latter then use T_0 as a contra argument. Here one must enter T_0 in both columns of a *pro et contra* list.

Issue Expressions

It is best if the statement of an issue being argued can be expressed in one sentence. If the issue expression consists of more than one sentence, we must be clear that together the sentences express one unified statement. If the claim can be divided into more than one statement, it is possible that the arguments can no longer be adequately classified as pro or contra since one and the same argument may be a pro argument in relation to one part of the claim and a contra argument (or even irrelevant) in relation to another. In the following, unless expressly stated otherwise, we assume that whatever is at issue can be expressed in one sentence, which is designated as F_0 .

When it is difficult to give an exact expression to an assertion in just one sentence, it may be expedient to make the issue expression as compendious as possible, even at the expense of preciseness. All that is necessary then is to add a comment to the issue expression indicating a strong precization of F_0 that is to be taken as meaning the same as F_0 throughout the subsequent discussion or survey. Further comments may also be needed; whether or not they are needed becomes clear as soon as a debate gets under way. The same goes for questions about how strongly F_0 should be precized. Here we can apply the rule that one's precizations should not be so strong as

to bring out shades and distinctions of meaning that have no bearing on the issue being raised and that do not affect the arguments in any way.

When trying to decide something, we seldom consider only one possible conclusion. We are normally prepared to consider a number of practical possibilities, such as when we are choosing a course to fulfill a school's language requirements. If the school requires two languages, we do not choose between French and not-French, but among French, Spanish, German, and so forth. Because the number of offerings is limited, there is no need to consider arguments that apply to all possible combinations as there would be if the choice were between any two or none at all. If we have already agreed to accept one of a range of alternatives, we can save time by mentioning what the possible alternatives to F_0 are.

Often a quick decision is needed. In that case, a comprehensive *pro et contra* survey is too time consuming to be useful, unless it has been prepared beforehand. It is, of course, a wise step as well as an exercise in intelligence to anticipate both the situations in which decisions are needed and the considerations that might bear on them. In this way, we prepare ourselves to act from prearranged dispositions to this or that decision in this or that kind of situation. When one then encounters an actual situation, one can ask oneself what set of matching conditions appropriate in this *sort* of situation are to apply in the present case. The good chess player, we all know, thinks a number of possible moves ahead.

Argument Expressions

It often pays to make a *pro et contra* survey before beginning a *pro aut contra* survey on the same issue. In a practical sense, the requirement of the first survey is to glean an all-around knowledge of the considerations adduced in the course of the discussion by adherents and opponents of the standpoint being contested. One should also include arguments that one considers to be untenable or irrelevant if these have been introduced in the discussion. Whether such arguments come into *pro et contra* surveys depends only on whether one of the disputants views it as a compelling argument. The requirement of the second survey is to evaluate the arguments critically and then arrive at a revised survey of the arguments that presents a particular position.

Arguments that directly bear out an issue expression are called *pro arguments of the first order*. These are numbered in the following way: $P_1, P_2,$

\dots, P_n . Similarly, contra arguments of the first order are designated C_1, C_2, \dots, C_n . Every argument should be formulated so that one can see clearly whether it is consistent with both the issue expression and the remaining arguments in the list.

It may happen that an argument of the first order can itself become an issue expression in a new survey. Such a survey can be grafted onto the original list in the way illustrated in figure 5. Arguments for and against an argument of the first order are called arguments of the second order relative to F_0 . Arguments that support a pro argument of the first order are called *pro-pro arguments*; those that rebut a pro argument of the first order are *contra-pro arguments*. Any arguments of the higher order that become an issue must themselves be made the object of *pro et contra* surveys, and so on.

That one reaches a final link in the chain of arguments is because there is a stage when an issue comes to be treated, if not as “unquestionable” (in the sense of “conclusive”), then in a more restricted sense as “not questioned” in the scope of the given discussion. We must also make some qualifying statements about the questioner. He must be considered competent. But we should be cautious here; if a person’s competence is in question, it may be wise to include an assertion about this in the *pro et contra* list. It is unwise to succumb to the temptation of assuming that one’s opponent is ipso facto incompetent.

The most important condition for bringing a discussion or a survey to a conclusion is that it have a definite aim. There must be an accepted end to it; often a schematic review of the arguments will suffice to clear up the point discussed. The main consideration is that the survey give a clear and complete account of the crucial arguments relevant to the given discussion. It is a common mistake in the presentation of arguments of a higher order to include irrelevant arguments that tend to obscure the force of the relevant ones. Differences of opinion often appear to be complete, but closer analysis often shows that the different standpoints can be traced to controversies over minor and comparatively few points. The balance can often be accounted for by a disposition to aggressiveness and other forms of self-assertion, or perhaps simply to lack of knowledge of one’s opponent.

The structure of an argument can be set up in a number of ways. One of them is shown in figure 5. The argument symbols should be read from left to right. Thus, “ $P_1P_2C_1$ ” is to be read as “pro argument no. 1 for pro argument no. 2 for contra argument no. 1 (against F_0).”

SURVEYS OF ARGUMENTS FOR AND AGAINST A STANDPOINT

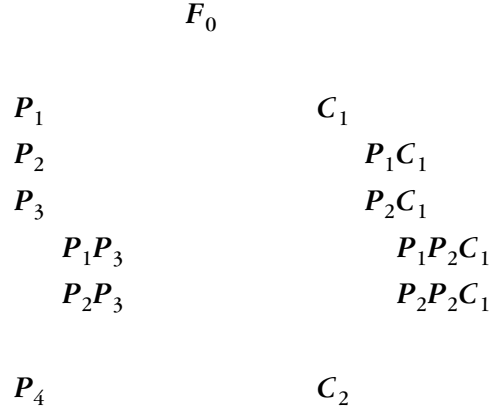


Figure 5. Schematic of the structure of an argument.

According to the kind and number of arguments of higher orders, one can find different ways of making satisfactory surveys. The following examples demonstrate a variety of organizing frameworks. The important thing is that a survey should show clearly how each sentence is related to the others in the pattern of the argumentation, which can sometimes be a very difficult thing to accomplish.

Tenability and Relevance of Arguments

To be able to use a *pro et contra* list to determine one's own position with respect to some F_0 , one must judge each argument, pro and con, separately and then weigh them against one another. We must first select from the *pro et contra* list those arguments that we consider to be the most important and organize them by how we think they are related to one another. In deciding whether some argument ought to be included in such a survey, it is no use demanding merely that it should have *either* some relevance *or* some tenability. Both characteristics are needed. Then we weigh pro arguments against contra arguments and eventually come to a conclusion. It is only then that we first get a complete *pro aut contra* list. The final assessment or conclusion should be expressed briefly and should contain no arguments itself.

We must pay attention to two things when weighing the pros and cons of an argument. First, we must ask ourselves how sure we can be that the

argument is a tenable assertion in itself. Second, we must ask ourselves how strongly the argument speaks for or against F_0 . In other words, how great is its proof potential or, simply, how relevant is it?

The greater an argument's relevance, the less certain we may be about its tenability as an assertion for it to be included in our list. For example, if there is a probability of only 1 in 1,000 that a thunderbolt will strike the place where I am standing within the next few minutes, I am still justified in including the assertion "A thunderbolt may strike here at any moment" among the contra arguments relative to the issue expression "We must stand here to get a good view." However, if an assertion has a high degree of probability in itself, we may be justified in noting it even if its relevance is slight.

When deciding whether an argument is tenable or not, it often pays to consider what we would have to do to find out whether or not it is true. It is likely the case that the necessary investigations have not been carried out for a great number of arguments.

The procedure for determining the degree of relevance of an argument is rather different. The decision is ultimately intuitive; one can only "feel" that the argument should or should not appear in a *pro aut contra* list. Appeal to intuition does not necessarily render the decision less certain. At a more advanced stage, one might be able to replace the intuitive decision with something less intuitive and more rational, something in the way of an explanation. However, it would be vain to suppose that we can avoid every appeal to intuition.

The demand for relevance varies according to whether the issue expression states that something *is* such and such (descriptive F_0) or that something *should be* such and such (normative F_0). For a descriptive F_0 , the relevance of T increases in step with our belief that the truth of argument T implies the truth of F_0 . For a normative F_0 , the relevance of P increases in step with the value of pro argument P (or the more beneficial it is that P be realized). This rule also applies when P is an assertion about what follows from accepting F_0 or from behaving as F_0 prescribes. For a normative F_0 , the relevance of C increases in step with the negative value of contra argument C (or the more unfortunate it would be if C were to be realized).

When evaluating the *tenability* of arguments in relation to a descriptive issue expression, one simply asks, "How likely is it that the assertions con-

stituting pro argument P_1 and contra argument C_1 are true?" In contrast, when evaluating the *relevance* of arguments, one asks, "How likely is it that if P_1 is true then F_0 is true, and how probable is it that if C_1 is true then not- F_0 is true (F_0 is false)?" When evaluating the tenability of arguments in relation to a normative issue, one must distinguish between arguments stating norms and arguments stating probable consequences. In the former case, one should ask, "Do I find this norm tenable?," or "Would I choose this rather than alternative norms?" In the latter case, one should ask, "Is it the case, as the argument states, that such and such consequences will result from my decision?" When evaluating the relevance of these arguments, in the former case, one should ask, "If I acknowledge the norm stated in the argument, does it then follow that I ought to do what is implied by F_0 ?" In the latter case, one should ask, "If I acknowledge that such and such will be the most probable consequences of my action, shall I then choose this action?" The following examples may enable the reader to grasp these rules and distinctions more readily.

The first two simple examples bring out the factors of validity and relevance.

Example 1

$F_0 \equiv$ It will rain tonight.

$P_1 \equiv$ The sky is covered with gray clouds.

$P_2 \equiv$ The swallows are flying low.

$C_1 \equiv$ The barometer is rising.

We may take all three arguments to have a relatively high degree of *validity*, especially P_1 and C_1 , because they are based on trustworthy observations. The relevance of P_1 and P_2 are of the same order as the probability of the hypothesis that, if the sky is covered with gray clouds and swallows fly low, it will rain in the night. The relevance of C_1 is of the same order as the probability of the hypothesis that, if the barometer rises, it will not rain in the night. If we intuitively accept the likelihood of the first hypothesis, we will accept the conclusion that it will rain tonight rather than its negation. But the *relevance* of the pro arguments, especially P_2 , seems so slight that we must consider the conclusion to be extremely uncertain.

Example 2

For a very simple example of a *pro aut contra* survey with a normative issue expression, consider this familiar kind of story. Peter was studying for his degree in mathematics. He was so interested in his work that he could not consider devoting his working hours to anything but pursuing his studies. But he enjoyed reading poetry, of the kind one cannot enjoyably read when one is tired. To clarify his problem, Peter set up a small *pro aut contra* list:

$F_0 \equiv$ As long as I study, I have to devote all my time to my subject.

Antithesis \equiv I must set aside some of my working hours for reading poetry.

$P_1 \equiv$ I will be earning a steady income a year earlier.

$C_1 \equiv$ I will not be a social success.

$P_2 \equiv$ I will be a useful member of society a year earlier.

$C_2 \equiv$ I will become one-sided.

Peter thinks that the degree of *validity* is the same for all four arguments. If anything is to tip the scales, it must be the difference in degree of *relevance*. The degree of relevance that Peter assigns to the various arguments is contingent on which higher norms (expressed or not) he accepts. As it happens, Peter believes that being a useful and prosperous citizen is preferable to being a person with a rich inner life but no money, and on this basis he accepts F_0 . We note that Peter assumes here that becoming more widely cultured will not lead to his becoming useful and prosperous, at least not as readily.

Example 3

Now we come to more complicated surveys. Let us take the example of students at an urban university in an occupied country during World War II who are discussing whether or not they should go on strike. A *pro et contra* list is made and used in the discussions. Most of the included arguments are of the kind one would already have heard from supporters and opponents of the scheme. (Note that the example given here does not altogether follow the rules just established. For instance, it infringes the rule for sepa-

SURVEYS OF ARGUMENTS FOR AND AGAINST A STANDPOINT

ration of levels of argument by adding, in pro argument P_7 , the phrase “this is a good thing.”)

$F_0 \equiv$ Students should strike (at the specified time).

Antithesis \equiv The students should not strike.

Pro Arguments

$P_1 \equiv$ Last week’s aggressive action against the university was so serious that a clear demonstration on the part of the students is called for. In this case, a strike would be the best course of action. (Precization of “clear demonstration”: a demonstration that will be recognized as such by non-participants.)

$P_2 \equiv$ A strike would strengthen the home front.

$P_3 \equiv$ The reputations of students, and indirectly of all intellectuals, will suffer a blow if they fail to show solidarity in time of war.

$P_4 \equiv$ A strike represents a small but nonetheless significant contribution to the common war effort, insofar as the morale of the military forces depends a great deal on that of the home front.

$P_5 \equiv$ A strike would effectively obstruct the attempts by the government to maintain and widen its own prestige in the country and elsewhere.

$P_6 \equiv$ A strike would effectively obstruct enemy propaganda by showing that cultural institutions cannot be preserved in an occupied country.

$P_7 \equiv$ Recognition of their own responsibilities strengthens morale among students, and this is a good thing.

$P_8 \equiv$ Last week’s strike attempt broke down. Unless they renew the attempt, students will have to recognize their own powerlessness, which will aggravate defeatism.

$P_9 \equiv$ A strike may provoke such threats that we will be justified in giving way, but the good consequences of the action (stated in P_1 through P_4) will not thereby be diminished, whereas all contra arguments, with one exception, will be weakened.

$P_{10} \equiv$ We still have the possibility of striking without serious consequences. However, we must expect such occasions to become increasingly rare. If the enemy adopts harsher methods, combined action will become impractical.

Contra Arguments

$C_1 \equiv$ It is to the enemy's advantage if we strike because they can then disperse the students, who, thus weakened, will be unable to voice their opinions effectively. In the city, students have better opportunities for keeping informed about the situation and for carrying out retaliatory activities.

$C_2 \equiv$ It is to our advantage to keep in close contact with those who waver in order to exercise influence on them.

$C_3 \equiv$ A strike affects different students to different degrees. Those who require technical apparatus will be especially hard hit.

$C_4 \equiv$ Students' economic positions will be adversely affected as a result of a strike. Some may be set back as many as two or three years, with a corresponding loss of income.

$C_5 \equiv$ Reprisals will follow upon strike action, which can be avoided by not striking. There may even be executions, perhaps of especially valuable people.

$C_6 \equiv$ If there is a strike, the enemy will take over all scientific institutions.

$C_7 \equiv$ The enemy will destroy important scientific apparatus and materials or use them in their war effort.

SURVEYS OF ARGUMENTS FOR AND AGAINST A STANDPOINT

- $C_8 \equiv$ At a given signal, students are able to mobilize armed groups, but only if they stay at the university.
- $C_9 \equiv$ If we attempt to undertake a strike and it is not effective, the operation will be a catastrophe. It is very likely that it will not be effective. (Precization of to be “effective”: the strike [1] must not interrupt education and must let the waverers go on to take their exams and acquire positions; [2] must not give outsiders the impression of dissension, thus making it easier for the enemy to occupy the vacancies; and [3] must not interrupt education and split the university into its separate faculties, which might then stand in opposition to one another.)
- $C_{10} \equiv$ Having no work will undermine morale, so that many students will abandon their vocations.
- $C_{11} \equiv$ When the students are out of work, the enemy will have all the more excuse to recruit them for compulsory labor to their own benefit.
- $C_{12} \equiv$ It will be to our country’s detriment to have a shortage of graduates when peace comes.

Contra-Contra Arguments

- $CC_1 \equiv$ a. If C_1 were true (arguments in support of F_0), then the National Assembly would already have closed the university last week.
b. This relates to P_6 and P_7 (possibly also to P_4 and P_5).
- $CC_2 \equiv$ a. The waverers will find just as strong opposition to the enemy in their home districts.
b. The distribution of news is just as good all over the country.
c. Some students at the university have gone over to the government.
d. For propaganda purposes, it is an advantage that active students be spread over a greater area.

e. Waverers are exposed to more effective enemy propaganda in the city than elsewhere.

$CC_3 \equiv$ A mitigating factor is that most students can, to some extent, continue their training outside the university by attending private courses and lectures. They can then take their exams as soon as possible after the return of peace. The delay will therefore be minimal.

$CC_4 \equiv$ Mitigating factors:

- a. For students from rural districts, it is cheaper to live at home than in the city.
- b. The food situation and conditions of life generally are much better in rural areas than in the city.
- c. If C_9 is correct, C_4 does not apply.

$CC_{6,7} \equiv$ If C_9 is correct, C_6 and C_7 do not apply.

$CC_8 \equiv$ It is easier to come militarily prepared from the rural districts if the occasion arises. Also, the occupation forces can more easily round up students in the city.

Example 4

A *pro et contra* survey for the following issue expression (see example 5 for an alternative survey):

$F_0 \equiv$ Our country should help underdeveloped countries.

SURVEY I

$T_0 = F_0$

$T_1 \equiv$ Our country should give technical and economic aid to some areas in Asia and Africa where the majority of people live at or below the subsistence level.

Pro Arguments

$P_1 \equiv$ Our citizens are morally obliged to accept F_0 .

SURVEYS OF ARGUMENTS FOR AND AGAINST A STANDPOINT

$P_1P_1 \equiv$ Our standard of living is so much higher than that of other peoples.

$P_2P_1 \equiv$ Our citizens honor the Christian code, in which love of one's neighbor is a basic principle.

$P_2 \equiv$ Accepting T_1 is necessary for saving our own way of life.

$P_1P_2 \equiv$ There is risk of war when so many are living below the subsistence level.

$P_2P_2 \equiv$ Our country should create new markets in these areas. We can only do so if these underdeveloped countries attain the economic prosperity required to establish commercial ties.

$P_3 \equiv$ Our country has special qualifications for contributing in this way.

$P_1P_3 \equiv$ The people in question cannot misinterpret our action as inspired by imperialism.

$P_2P_3 \equiv$ Our country is already well known for the humanitarian work of our missionaries in these countries.

Contra Arguments, Pro-Contra Arguments, and Contra-Pro-Contra Arguments

$C_1 \equiv$ No one is obliged to help these people.

$P_1C_1 \equiv$ They have largely themselves to blame for their plight.

$P_1P_1C_1 \equiv$ They are too lazy.

$P_2P_1C_1 \equiv$ They will not give up their religious beliefs, which play a large part in preventing progress.

$C_1P_1P_1C_1 \equiv$ Their laziness depends largely on weakness due to starvation, and in all probability it will disappear under improved economic conditions.

$C_2 \equiv$ Our country cannot help.

$P_1C_2 \equiv$ We have enough troubles of our own.

$P_2C_2 \equiv$ The help we can give will make little difference.

$C_1P_1C_2 \equiv$ Unlike the situation in these other countries, there is no risk of starvation in this country.

$C_1P_2C_2 \equiv$ Even the smallest contribution helps.

Example 5

Second *pro et contra* survey for

$F_0 =$ Our country should help underdeveloped countries.

SURVEY II

$T_0 = F_0$

$T_1 \equiv$ Our government, with the voluntary economic support of the people, should help those countries in which more than two-thirds of the population live in hunger, sickness, and need. (“Economically underdeveloped countries” is the internationally recognized designation for these countries. We will refer to them here simply as D .)

Antithesis \equiv We should not help D .

Pro Arguments (with one example of a contra-pro argument)

$P_1 \equiv D$ are a threat to world peace.

$P_1P_1 \equiv$ The people in D see how Western countries have exploited them.

$P_2P_1 \equiv$ The people in D will come to rise up against the oppression that they see to be the cause of their misery.

$P_2 \equiv$ Humanitarian considerations compel us to help the people in D .

$P_1P_2 \equiv$ Human solidarity must be extended over the whole world.

$P_1P_1P_2 \equiv$ It is in accord with our democratic principles and outlook on life.

SURVEYS OF ARGUMENTS FOR AND AGAINST A STANDPOINT

$P_2P_2 \equiv$ On ethical grounds, one cannot concede that the majority of mankind should live in extreme need while we live in comfort.

$P_1P_2P_2 \equiv$ The high standard of living enjoyed by developed countries is not due to themselves alone. The raw materials they have taken from D have contributed to this standard.

$P_3 \equiv$ According to the UN Charter we are pledged to give technical and economic assistance.

$C_1P_3 \equiv$ This country is not pledged to give additional *voluntary* assistance. We have already contributed what we are committed to under the terms of the UN Charter.

Contra Arguments, Pro-Contra Arguments, and Contra-Contra Arguments

$C_1 \equiv$ We do not have the economic capacity to give such assistance.

$P_1C_1 \equiv$ Our budget has already exceeded its limits.

$P_2C_1 \equiv$ Our country has a deficit in its overseas trade.

$C_2 \equiv$ We should first help the partially underdeveloped areas in our own country.

$C_1C_2 \equiv$ D present problems of a quite different kind and scope.

$C_3 \equiv$ We should first solve domestic problems of our own (such as housing and roads) before considering how we can help others.

$C_4 \equiv$ What little we can contribute is so inconsiderable that one cannot seriously speak of it in terms of assistance.

$C_1C_4 \equiv$ The significance of our assistance is not in economic support itself; our action will show the way to other Western countries when they seriously come to look for a solution to the problems presented by D .

$C_5 \equiv$ Such help will lead to overpopulation in D , which will just present further problems for the West.

- $P_1C_5 \equiv$ Better living conditions mean a decrease in the death rate of infants and an increase in population. Production of foodstuffs often does not keep pace with the rising population. If this is the case, then the West will have to stake even more capital to promote higher productivity in D .
- $C_1C_5 \equiv$ If D is provided with technical and economic opportunities to improve its living conditions, the people in D will themselves find some solution to the problem of the birth rate.
- $C_2C_5 \equiv$ An increased standard of living means an increase in the average age, so that D will have the benefit of more men in their prime. This means that the people in D can themselves increase production and foodstuffs.

VI

Effective Discussion

Introduction

We depend on language as a means of conveying ideas from one person to another. Often the views conveyed are not shared; opinion is divided. Then the exchange of ideas can take the form of debate. We can view some of Plato's dialogues as systematic attempts to clarify difficult issues and as such they represent good illustrations of the basic functions of debate.

From the time of Aristotle, people have noted the distinction between the rhetoric practiced by, for example, politicians and preachers and discursive or rational argument that is exclusively concerned with the critical exchange of ideas. These two forms of rhetoric cannot replace one another. Speech designed to arouse people to action or to have a direct influence on their behavior differs in kind from speech used purely in the exchange of ideas. To combine the two functions defeats the aims of each, namely, commitment on the one hand and clarity of thought on the other.

This chapter presents what we can regard as principles of effective discussion, although it might be more accurate to describe them as forms of irrelevance in serious discussion. The aim of effective discussion is the exchange of cognitive contents in a manner that facilitates the greater consistency and proper understanding of those contents. The principles are determined by this aim. Where our aims are different, these same principles or standards cannot be relevant and they may be directly harmful. If we wish to influence people and not to convince them, suggestiveness, propaganda, and advertisement are generally more effective means than discussion.

We shall consider irrelevance under six main headings. The definition we adopt for "relevant" in this context is such that "a matter x is relevant" means the same as " x infringes on none of the six principles for relevant discussion."

EFFECTIVE DISCUSSION

The principles themselves are elementary. They provide no more than a minimal basis for competent discursive argument. Finally, we must assume when using them that our discussion, whatever it is, concerns some fixed topic, namely that which is presented in the issue expression.

Principle One: Avoid Tendentious References to Side Issues

Preliminary formulation of principle one: *one should keep to the point, even if one is aware that it harms one's own interests to do so.*

Precization of the preliminary formulation of principle one:

A proposition *T* in a serious discussion violates principle one if (a) *T*, taken as an argument, has little relevance; (b) *T*, taken as an expression for an isolated assertion, is not sufficiently tenable to be able to support or detract from a given viewpoint; or (c) *T*, taken as a precization of or a comment on some previous argument is not conducive to highlighting misunderstandings. Principle one is also violated if *T* aims to influence people in favor of a certain conclusion.

Suppose that the topic for discussion is given in an issue expression in a *pro et contra* survey. The question whether some matter is irrelevant or uncertain will tend to be answered differently according to one's position regarding the issue expression. The first principle must therefore be interpreted as requiring only that a given matter be sufficiently relevant and tenable from one's own particular point of view. I illustrate this point with a conversation between two people discussing the issue of "for or against competitive sports," in which both are guilty of producing irrelevant arguments.

1. A: Competitive sports destroy a person's intelligence and spirit of cooperation.
2. B: A can only say that because he isn't a sportsman himself.
3. A: The last remark doesn't affect my argument, it only shows that I was right in saying sports destroy a person's intelligence.
4. B: You are a typical culture snob carping at sports whenever you can.
5. A: As I said before, I've no quarrel with sports as such, only with their harmful effects.

Principle Two: Avoid Tendentious Renderings of Other People's Views

Here assertion (2) is a clear case of irrelevant argument. Person *B* tries to throw suspicion on his opponent to weaken the latter's argument. Person *A*'s gibe at *B* in (3) is another case of irrelevance, as is *B*'s attempt in (4) to ascribe to *A* an argument that *A* disowns in (5). In this example, we see instances of two kinds of irrelevance: attempts to throw an opponent's view into disrepute by saying something that has nothing to do with the view itself, and attempts to attack an opponent for holding views that he does not hold.

Another form of irrelevant argument occurs when unnecessary emphasis is placed on some generally accepted viewpoint that even one's opponent would agree to. It can reinforce one's own position to subscribe to some sentiment that no one would criticize you for but which does not contribute materially to the discussion. By ignoring such banalities, an opponent, by his very silence on the point, may appear to be opposing them; he loses credibility and the other gains through cheating. In this way, spurious disagreement can be generated.

Principle Two: Avoid Tendentious Renderings of Other People's Views

Preliminary formulation of principle two: *an utterance in serious discussion that aims at rendering a point of view should be neutral in relation to all points of view represented in the discussion.*

Consider as a case in point a public debate on a country's economic policy. A politician *A* says, "We should agree to do away with all customs duties and try to get other countries to follow suit." A journalist *B* reports on *A*'s utterance under the headline, "Mr. *A* makes himself spokesman for a total free-trade policy." On reading the written version, reader *C* will already be influenced without knowing what *A*'s position really is. It could well be that *A* also expressed other views, and *B* cannot assume that *C* will be uninterested in these. If *B* expects *C* to adopt a negative standpoint to *A*'s views on free trade and thus expects that *C* can be shuffled into a generally negative attitude toward *A*'s other views, then *B*'s report is tendentious and hence irrelevant in its very selectiveness.

A common bad habit is to generalize an opponent's view, substituting "all *x* are *y*" for *A*'s "this *x* is *y*" or "some *x* are *y*." For example, "Men are better suited than women to be priests" becomes "All men are better suited than any woman to be priests."

EFFECTIVE DISCUSSION

Precization of the preliminary formulation of principle two:

An utterance in serious discussion that purports to give an account of A's viewpoint should be such that if we let the report stand in place of the original as an issue expression in a *pro et contra* survey, then none of the argument's force (tenability and relevance from A's standpoint) is lost.

Occasionally a report has to be made shorter than the original. In this case, it must inevitably diverge from the original and consequently it may yield a number of reasonable interpretations. The divergence, however, should not be biased. Distorting quotations is a familiar phenomenon, and one to beware of in this context. To take some saying or even a whole section of a speech out of its context may mean that far more misleading sets of interpretations become "reasonable."

The less a public knows about some debated viewpoints, the less competent it is to take a stand of its own, and thus the need for neutral presentation of the points of view in question increases. A teacher should be *less* brief with beginners than with more advanced students. Only when he can count on the listeners to know the contra arguments against his views can the teacher get down to *pro aut contra* arguing with the students. Beginners have smaller reserves of mature knowledge and are therefore more open to suggestion. To prevent uncritical reception of what he teaches, a teacher should take care to convey the rationality of a view along with the view itself.

Principle Three: Avoid Tendentious Ambiguity

Preliminary formulation of principle three: *the matter should not be communicated in a manner that incurs a real risk of misunderstanding on the part of the listener.*

Suppose a general in the armed forces proposes a truce to the enemy. The enemy answers that they agree to a 30-day truce. The same night they make an attack and win an easy victory. Afterward, they say they only agreed to a daytime truce, not a nighttime one as well. Their agreement to a 30-day truce was intentionally ambiguous.

Precization of the preliminary formulation of principle three:

An utterance in serious discussion violates principle three if and only if (1) the utterance can be given different interpretations and

it is possible for the listener to interpret it in a way different from that intended by the utterer, and (2) the listener's interpretation strengthens the utterer's argument more than the utterer's own interpretation would.

We can clarify the application of this principle with an example:

1. A: I have nothing against sports, but according to the view we Christians hold, I must say that . . .
2. B: "We Christians," who are they?
3. A: People like me who actively subscribe to Christian beliefs.
4. B: But think of all the people who call themselves Christian, do you speak for all of them?
5. A: Of course not, actually I meant members of the Christian People's party.

Let us now analyze this fragment of discussion in terms of relevance. Consider the following interpretations:

- $a_0 \equiv$ We Christians.
- $a_1 \equiv$ We who actively subscribe to Christian beliefs.
- $a_{1.1} \equiv$ We who actively subscribe to Christian beliefs in the political sphere as well.
- $a_{1.2} \equiv$ We who actively subscribe to Christian beliefs politically or otherwise.
- $a_2 \equiv$ We members of the Christian People's political party.
- $a_3 \equiv$ We who adopted the Christian faith and morality.

Speaker A uses a_0 , $a_{1.1}$, and a_2 as cognitively equivalent — although the word "actually" in (5) can mean something else (see next paragraph). Probably $a_{1.2}$ and a_3 are reasonable interpretations, and A can be presumed to be aware of this. But A employs a special usage. If in this context, by a_0 he means a_2 , his listener will tend to confuse the reasonable interpretations that thus lead to a quantitative and evaluative overrating of the group that A represents. Members of the Christian People's political party make up only a small portion of those normally rated as Christians, in the sense un-

derstood by $a_{1.2}$ or a_3 . If A did represent the whole class, his standpoint would not be politically colored and would therefore acquire a greater authority. However, he would then succeed in arousing the opposition of Christians in senses other than $a_{1.2}$ and a_3 . By adopting sense a_0 , A might find it easier to influence his listeners into accepting his own standpoint. Thus, A 's use of a_0 is a sign of irrelevance.

This use of tendentious ambiguity can certainly be weakened by the listener's knowledge that the speaker is a member of the party in question and that its members normally interpret a_0 as a_2 . Assertion (4) to some extent supports the supposition that such knowledge holds in this case. Listener B 's remark implies that he interprets a_0 as $a_{1.1}$ rather than as $a_{1.2}$.

In regard to the relevance of A 's argument, it is also in A 's favor that in (5) he recognizes his special usage instead of attempting to cover it up with some irrelevant remark. If A had deliberately produced an irrelevant argument, there would be, psychologically, less likelihood of his uttering (5), since this utterance clearly confirms one's suspicion about irrelevance.

A tendency toward irrelevant argument can perhaps be detected at assertion (3). Quite likely A understands what B hints at when he utters assertion (2), but does not manage immediately to resist the temptation to offer the ambiguous expression a_1 instead of the more precise a_2 .

Assertion (2) is in the form of a question, but presumably B is aware that by a_0 A probably means a_2 and that A does not imagine all people subsumable under $a_{1.2}$ or a_3 are in favor of his own standpoint. Perhaps, too, B thinks the rest of his listeners are aware of this. Under these assumptions, B interrupts A with (2), insofar as (4) is a symptom of B 's irrelevant arguing. He draws the attention of possible opponents to A within group $a_{1.2}$, and at the same time deals A a blow. But according to the above assumptions, the interruption, because it is definitely misleading, cannot be justified as a technique in discussion.

We conclude that we have a sign of A 's, and possibly also of B 's, infringement of principle three.

Principle Four: Avoid Tendentious Argument from Alleged Implication

Principle two refers to nonneutral renderings of other people's views. Principle four refers to tendentious presentations of other people's views, which

Principle Four: Avoid Tendentious Argument from Alleged Implication

associate inductive or deductive consequences with *T* that do not directly follow from reports of previously formulated standpoints.

It is, of course, entirely acceptable to judge proposition *T*, not only on the basis of the assertions made by the proponents of *T* but also on the basis of propositions that one believes are deductive or inductive consequences of *T*, or which in some way give a fuller presentation of the viewpoint expressed by *T*. However, when giving an account of the view *T* states, it is tendentious to attribute to proponents of this view assertions that one assumes or considers to be inferred from *T*.

For example, someone argues as follows: "Opponents say that he accepts *T*. But from *T* follows *U*, and *U* is untenable. Therefore *T* is untenable." Here it is important to know whether an opponent does in fact accept that *U* follows from *T*. If he does not and yet we proceed under the assumption that he does, then we have broken an elementary rule for relevant discussion. In addition, it can be tendentious for us to introduce *U* at all before we have discussed whether *U* does or does not follow from *T*.

Another kind of tendentious imputation occurs when one says that certainly *A* says he accepts *T* but that he does not mean it; his real view is *U*. For example, "*A* says he honors the principle about equal rights for higher education whatever the financial circumstances, but in fact he thinks that this right ought to be confined to those who have the means to undertake a prolonged course of study."

In another case, someone asserts that *A* certainly means *T*, but also means *U*, which is inconsistent with *T*. For example, "*A* supports the greatest possible freedom. But freedom for whom? From all accounts, it seems he only wants freedom for people who share his viewpoint, which is that freedom can only be realized after a period of oppression."

There is, of course, nothing to prevent a person from saying one thing but meaning another. Indeed, the accounts people give of their views are often deliberately vague and misleading. Thus, imputations of the kind discussed here often prove to be justified. However, unless the imputation is clearly presented as a hypothesis, together with the grounds for accepting it, the account itself will be tendentious and misleading. Generally, fruitful exchanges of thought are impeded by hasty assertions that attribute a viewpoint to one's opponents that is either immaterial or inconsistent with what they say they mean. In the end, one creates a sort of personal isolation in the face of one's opponents that easily generates ill will and even violence.

EFFECTIVE DISCUSSION

Preliminary formulation of principle four: *one should give an account of another person's viewpoint (1) without saying whether the person in question is likely to accept the account or (2) without bringing up the arguments one has for attributing to someone a view he himself says he does not hold.*

Precization of the preliminary formulation of principle four:

An utterance in serious discussion violates principle four if, and only if, it attributes to a person (or group) a viewpoint (assertion, opinion, or argument) and the following three conditions are fulfilled: (1) *A* does not agree to *T*, and the speaker fails to produce arguments to show that *A* supports *T* or fails to mention the viewpoints that *A* has expressed; (2) the difference between the viewpoint that the public will probably attribute to *A*, if it believes the speaker, and the standpoint that the public would reasonably take *A* to hold if *A* had a chance to speak for himself, affects the issue's acceptability positively or negatively, or affects the combined strength of evidence in pro or in contra arguments; and (3) this difference strengthens the speaker's (or his group's) standpoint. The application of this principle can be clarified with an example:

A: The country's economy should continue to be run on the principles of a planned economy.

B: It seems from *A*'s standpoint that he does not mind recommending a policy that will lead to our country's ceasing to be a democracy and to our people's being deprived of their freedom as they were during the war. But freedom is such a valuable thing that there can be no question of exchanging it for some possible economic advantage.

Person *B*'s first sentence is designed to arouse in his listeners the idea that *A* accepts the consequences *B* extorts from *A*'s utterances. But there is no indication that *A* would in fact accept them. We must assume that *B* is aware of this and of the probable reaction of his listeners. Person *B* should first have given reasons for his view that *A*'s proposal will incur the consequences he, but hardly *A*, assumes it will. Only then should *B* go on to criticize *A*. If "freedom" and "democracy" are used with as much emotive value as *A*'s and *B*'s listeners normally derive from them, any views that are detrimental to freedom and democracy will arouse the public's antipathy. Speaker

B's words practically *compel* support for his own position in the debate, as he no doubt intends. We conclude that *B* is guilty of violating principle four.

Principle Five: Avoid Tendentious Firsthand Reports

Preliminary formulation of principle five: *an account (descriptive or theoretical) violates principle five if it leaves something out and lays emphasis on other things, or in some other way conveys a distorted impression to the listener, or else gives a directly false impression that serves the interests of the speaker.*

The application of principle five is illustrated by the following example:

A: We must go and catch the train now; it's just 9 o'clock.

B: No, I'll change my clothes first; it's only a quarter to.

In fact, *A*'s watch shows 8:55 and *B*'s 8:50.

Person *A* gives a false impression of what he has observed. So does *B*. Speaker *A*'s tendentious report of what he sees supports his wish to be getting on his way, while *B*'s account is designed to cater to his inclination to linger awhile.

An analysis of this kind becomes less sure the closer *A*'s and *B*'s accounts come to that of some independent witness and the less anything depends on the observations. A witness's account itself then becomes suspect if there is reason to believe that it is designed to prove irrelevant on the part of *A* or *B* or both.

Precization of principle five:

A proposition *T* in serious discussion violates principle five if, and only if, (1) *T* provides an account of observations (or of the relationship between observations) that is incorrect or incomplete or *T* holds back information that must be considered relevant in judging the validity or relevance of an argument, and (2) deviations that occur are intended to strengthen the speaker's position in the debate.

We can clarify the application of principle five with another example. Suppose a correspondent of a foreign newspaper reports the result of a parliamentary election in a telegram as "The *A* party increased its vote." A

EFFECTIVE DISCUSSION

more neutral and comprehensive account might show, however, that although the *A* party did indeed “increase” its vote, its proportion of the total votes cast decreased. The telegram presents party *A* in a favorable light at the cost of the others. We conclude that the correspondent has violated principle five.

Principle Six: Avoid Tendentious Use of Contexts

This principle concerns the context (or conditions) in which a matter is brought forward. In this category, we include in the context both noncognitive and cognitive components in, or as accessories to, the argument. This includes expressions of the following kind: “When a hypocrite such as Mr. H. starts saying what he feels, one knows straight off that. . . .” Any use of terminology of a scornful, abusive, or otherwise nonargumentative nature can come into what we call the “context” of the discussion. In addition, there are properties of the broader context in which the discussion is presented, such as the use of music, pageantry, serving of food and drink, and any other accessories of persuasion and suggestion. In the case of newspaper articles, for instance, it can be a question of the selection of type, photographs, and so on.

Preliminary formulation of principle six: *a matter should be presented in a neutral way in a neutral setting.*

Precization of the preliminary formulation of principle six:

An utterance in a serious discussion violates principle six if, and only if, the context in a wide as well as a narrow sense serves to strengthen the position of the speaker without its influence being attributable to the cognitive context of the matter.

Review of Principles

I will now briefly recapitulate the six principles for effective discussion.

Principle one concerns utterances (1) that are falsely presented as *arguments* for or against a position, or as precizations of arguments, or (2) that have a tendency to be so interpreted by the public.

Principle two concerns utterances (1) that are falsely presented as direct accounts or reports of previously presented viewpoints or (2) that have a

tendency to be so interpreted by the public. Principle two concerns a class of expressions that sometimes form part of an argument but that more properly belong to separate discussions of the status of the opponent's material and viewpoint in the discussion.

Principle three concerns the same utterances that principle one applies to, but refers specifically to the introduction of ambiguity to promote misunderstanding.

Principle four concerns expressions that assert something about the standpoints of others but that cannot lay claim to being direct accounts and that are not intended to be understood as direct accounts. Such expressions often occur in the form of conclusions drawn from one's opponent's own utterances ("If *A* means *T*, then he must also accept *U*").

Principle five concerns utterances that claim to belong to the *common pool of evidence* upon which any judgment of an argument's validity or relevance is to be based. Included among these utterances are reports of observations, the contents of textbooks, and works of reference that aim to represent our common knowledge.

Principle six concerns the relationship of utterances to the *wider context*, including the linguistic context in which they occur.

Common to all utterances that are open to violate these six principles is the precondition that they either actually occur in serious discussion or else are intended to be used in such with a view toward substantiating an argument's validity and relevance. A "serious discussion" is defined as any discussion in which the main aim is to increase one's understanding of some definite problem or in which one tries to clarify the issues involved in coming to a certain important decision. A further requirement of all utterances and other relevant factors liable to violate these principles is that they serve to strengthen, in the listener's mind, the standpoint that the speaker or spokesperson adopts in the discussion.

One of the main reasons for setting out in detail the rules for avoiding irrelevant arguing is that, by making the pitfalls explicit, one sees clearly how hard it is to justify any claim about irrelevant arguing. This chapter is not meant merely to improve the student's defenses, to put him on guard against irrelevant arguments directed at him; its primary purpose is to show the reader what he opens himself to when he makes accusations of irrelevant argumentation against others. One must be able to provide a satisfactory motivation for someone's violating a principle of relevance. When

EFFECTIVE DISCUSSION

an accusation of this kind comes up in a discussion that is itself not concerned with the relevance of arguments, it can often lead to a case of violation of principle one about tendentious references to side issues. *Accusations concerning the introduction of irrelevant arguments are one of the most common forms of irrelevant argument.*

If we suspect an opponent of making tendentious remarks, a grasp of the principles can help us judge whether our suspicions are well founded. But whatever our conclusions, the discussion itself will determine how well we can assure ourselves that the topic our opponent takes up is irrelevant to the subject of the discussion. If you think that you perceive a tendency in your opponent to try to win people over, say, by designedly ambiguous terms, you must be able to identify the ambiguities, at least to yourself. The first step toward testing such a belief is actually to formulate more precise expressions than those used by the opponent.

Distinction Between Relevant Argument and Forms of Persuasion

There is a great difference between a relevant or competent debate, on the one hand, and advertisements for goods or attitude conditioning through propaganda, on the other. It is important to realize that the various ways of influencing people's predispositions are not necessarily to be judged as though their aim was to promote competent discussion. Thus, the question of irrelevance only arises if such influencing appears in the guise of material for debate.

The slogan "truth in advertising" has served as an organizing principle for many attempts to combat the tendentiousness and inaccuracy of modern advertisers. But techniques in the art of public relations and advertising are various and subtle. So, too, with propaganda; despite all efforts, people are still unable to effectively combat the power and appeal of the skillful propagandizer, especially where sociological factors are at work.

One of the least debatable principles of the scientific approach is to realize as consistently as possible the distinction between relevant argument and forms of persuasion. The distinction has not always been appreciated. One comes across scientific works from the sixteenth and seventeenth centuries containing a great deal of inconsequent material of a persuasive kind, sometimes including religious doctrines cited as undeniable premises in ar-

gument. In our own century, when scientists are especially concerned with sociological matters, it is particularly important to distinguish between pronouncements and propositions.

The connection between the principles of relevant discussion and the previous chapters of this book may seem a little unclear. The connection is this: the misuse of language, especially insufficient use of precization, paves the way for all the usual aspects of irrelevance discussed here. It is precisely in precization that one finds the instrument to combat incompetent discussion. The technique of precization, then, is of great importance.

According to the way the term “relevant” has been introduced in this chapter, the principles governing relevance are essentially independent of whether the issue expressions or arguments belong to some well-established science. “Relevant” does not mean the same as “technical” or “scientifically based.” Indeed, one especially significant area of discussion in which these principles apply is when people argue, not about things, but about competing evaluations and when the issue expression is normative. We should note here that the acceptance of the democratic system, which most of us critically or uncritically subscribe to, itself presupposes a competent discussion on questions of value.

Political spokespeople and writers are often accused of employing irrelevant arguments when what they say seems to be entirely wrong or long since refuted. But it is clear from the principles presented here that *disagreement*, however deep, is not a sufficient reason for accusing the person one disagrees with of employing irrelevant arguments. A newspaper can be completely biased and yet validly claim that its opinions are not the outcome of irrelevant or immaterial argumentation. One may attack it for its one-sidedness but not for its irrelevance, however much one feels its views can only have been arrived at through tendentious selection and distortion of the facts.

For the same reasons, when people preach, we cannot accuse them of the sins enumerated in this chapter. On the contrary, as soon as we ourselves purport to represent an opponent’s view — whether in a scientific, religious, ethical, or political context — our account can be incompetent in any of the ways described.

Common Sense, Knowledge, and Truth

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

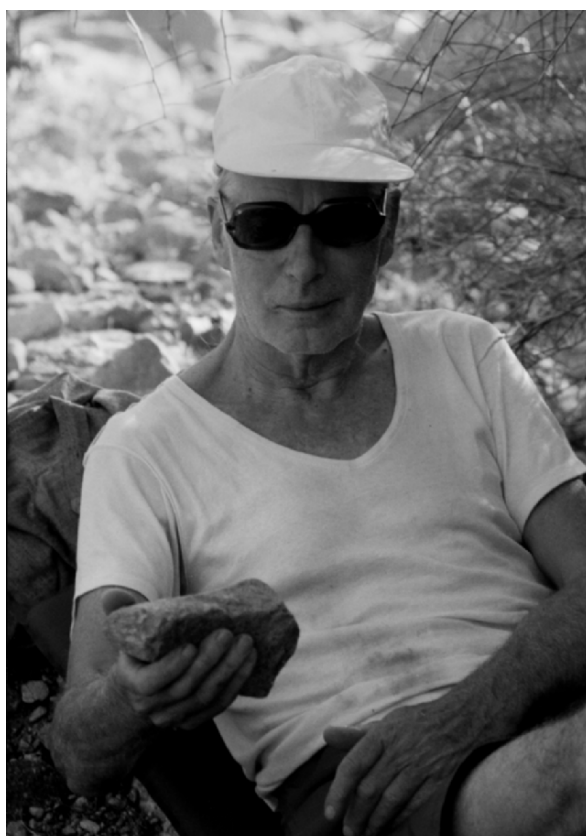
Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World
Selected Papers

Edited by Harold Glasser and Alan Drengson
in Cooperation with the Author

VOLUME VIII

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>List of Figures and Tables</i>	<i>ix</i>
<i>Series Editor's Introduction</i>	<i>xi</i>
<i>Author's Introduction to the Series</i>	<i>lvii</i>
<i>Preface by Alan Drengson</i>	<i>lxiii</i>
<i>Author's Preface</i>	<i>lxxi</i>
I. Empirical Semantics and 'Truth'	1
1. Common Sense and Truth	3
2. Logical Equivalence, Intentional Isomorphism, and Synonymity as Studied by Questionnaires	23
3. A Study of <i>Or</i>	33
4. Typology of Questionnaires Adapted to the Study of Expressions with Closely Related Meanings	45
5. The Empirical Semantics of Key Terms, Phrases, and Sentences: Empirical Semantics Applied to Nonprofessional Language	59
6. A Necessary Component of Logic: Empirical Argumentation Analysis	79
7. "You Assert This?": An Empirical Study of Weight Expressions	89
II. Zeteticism	103
8. Husserl on the Apodictic Evidence of Ideal Laws	105
9. Can Knowledge Be Reached?	115
10. Pyrrhonism Revisited	125
11. Trust and Confidence in the Absence of Strict Knowledge and Truth: An Answer to Nicholas Rescher's Critical Reappraisal of Scepticism	139

CONTENTS

III. Empiricism, Possibilism, and Pluralism	161
12. How Can the Empirical Movement Be Promoted Today? A Discussion of the Empiricism of Otto Neurath and Rudolf Carnap	163
13. The Glass Is on the Table	217
14. Logical Empiricism and the Uniqueness of the Schlick Seminar: A Personal Experience with Consequences	261
15. The Spirit of the Vienna Circle Devoted to Questions of <i>Lebens-</i> and <i>Weltauffassung</i>	279
IV. Metaphysics, Morals, and Gestalt Ontology	291
16. Do We Know That Basic Norms Cannot Be True or False?	293
17. We Still Do Not Know That Norms Cannot Be True or False: A Reply to Dag Österberg	313
18. The Principle of Intensity	319
19. Creativity and Gestalt Thinking	327
20. Gestalt Thinking and Buddhism	333
21. Kierkegaard and the Values of Education	343
<i>Notes</i>	349
<i>References</i>	361
<i>Index</i>	369

List of Figures and Tables

Figures

1.	Strings of equivalence: an example	77
2.	Untitled	84
3.	Untitled	85
4.	Untitled	87

Tables

1.	Summary of Results of Or-Questionnaires Qs ₃₇	40
2.	Most Frequently Used Weight Expressions	97

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he

has witnessed the most significant loss of cultural diversity and the onset of what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bioregionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cul-

SERIES EDITOR'S INTRODUCTION

tural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of “fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess's philosophical palette, not the "world" of his own consciousness as has become the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our

SERIES EDITOR'S INTRODUCTION

experience of the world is made up of gestalts. “[This] is the world we experience. Nothing is more real.”⁴ People create abstract structures to reflect on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess’s parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess’s “ontological realism” as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of “reality is one” plays a central role in the mature Naess’s approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality’s concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. “As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence.”⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess’s perspective, such accounts by themselves are merely a sign of cultural poverty. “God” could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess’s gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as “the social construction of

nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any "natural" tendencies toward anthropocentrism. As with Leopold's Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we "see" reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess's hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples' (or other life-forms') opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess's own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, "For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape."⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced

SERIES EDITOR'S INTRODUCTION

by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

Naess's philosophical career can be seen, in one sense, as an attempt to

bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept the premise "For every decision we, explicitly or implicitly, take all things into consideration," then the notion of total views or total normative sys-

SERIES EDITOR'S INTRODUCTION

tems can be seen as very “useful fictions,” which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess's hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess's view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems' requirements. He strives for definiteness of intention, yet he appreciates vagueness and eschews dogma, refusing

to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the "definitive" Arne Naess. He is a troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. "We have all read it. We *still* cheat in argumentation, but now with feelings of guilt."¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as "truth," "democracy," and "private enterprise." . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

SERIES EDITOR'S INTRODUCTION

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly pro-

SERIES EDITOR'S INTRODUCTION

lific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of

SERIES EDITOR'S INTRODUCTION

land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a “great idea” without Doug’s generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of environment should not, in Naess’s view, play a pivotal role in shaping a budding philosopher’s development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess’s philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess’s principal writings. As such, the *Selected Works* is the definitive repository of Naess’s oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess’s philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded,
and should follow his questions wherever they lead.

Arne Naess, “Norway”

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the

SERIES EDITOR'S INTRODUCTION

unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He

SERIES EDITOR'S INTRODUCTION

loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for “collecting” and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family’s little “wilderness” before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother’s small mountain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours’ walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza’s *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess’s desire for a broad and open perspective, for seeing things in totalities (god’s-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth’s biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potentially influence his approach to philosophy.

Arne’s youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School’s first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others.

SERIES EDITOR'S INTRODUCTION

During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way" — *sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical gram-

SERIES EDITOR'S INTRODUCTION

mar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of

knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather “witness” science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality (“maze epistemology”), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess’s interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess’s 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers’ intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related

SERIES EDITOR'S INTRODUCTION

these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as *"Truth" as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's "Common Sense and Truth" (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Ustaoset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created "institutes" of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into re-

SERIES EDITOR'S INTRODUCTION

search and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi’s catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi’s idea of trying to meet one’s opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war, Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO’s requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy*’s richness, diversity, and multiplicity of

SERIES EDITOR'S INTRODUCTION

meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess’s “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess’s empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess’s frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO’s plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess’s research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his

philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or im-

SERIES EDITOR'S INTRODUCTION

plied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last

group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation and Preciseness*, to argue that it is an illusion to assert that combined scientific and philosophical or "purely" philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN

SERIES EDITOR'S INTRODUCTION

IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V), was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), “Seek complete self-realization” and “Seek truth,” and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of “Self-realization!” as

the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical struc-

SERIES EDITOR'S INTRODUCTION

ture, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions taken earlier. Volume VIII includes sections on "Empirical Semantics and Truth," "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has

more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion, and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or

SERIES EDITOR'S INTRODUCTION

limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as “inventing” deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas’s 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson’s *Silent Spring*. Naess’s work on “deep ecology” can be subdivided into three main thematic areas.³⁰

What I refer to as Naess’s deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess’s general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work entering into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back

SERIES EDITOR'S INTRODUCTION

to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of "philosophical stupor," in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The "shallow," currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The "deep" approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach's proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans' special capacities for reason and moral consciousness come special responsibilities, particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the

SERIES EDITOR'S INTRODUCTION

Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-

evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only

SERIES EDITOR'S INTRODUCTION

who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy) make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally

than usual, rendering *praeclara* as “very clear” rather than the typical “excellent.”³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess’s distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this approach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people’s conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

SERIES EDITOR'S INTRODUCTION

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manuscripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and re-

SERIES EDITOR'S INTRODUCTION

ceive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface.

SERIES EDITOR'S INTRODUCTION

George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mul-

SERIES EDITOR'S INTRODUCTION

vaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible "work fairies" that were constantly pulling me back to my office don't actually exist. I can't wait.

Most of all, thanks to Arne Naess for placing his trust in me—it's been

SERIES EDITOR'S INTRODUCTION

a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora's box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne's writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder's "Axe Handles." The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five

SERIES EDITOR'S INTRODUCTION

hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

SERIES EDITOR'S INTRODUCTION

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.
6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.

SERIES EDITOR'S INTRODUCTION

8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher

SERIES EDITOR'S INTRODUCTION

Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.

SERIES EDITOR'S INTRODUCTION

24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhi's Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecology approach to ecophilosophy," the "deep ecology movement," and Naess's

SERIES EDITOR'S INTRODUCTION

"Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was

AUTHOR'S INTRODUCTION TO THE SERIES

"A philosopher." In fact, I had already conceived of myself as one. I viewed the writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that "What do I mean?" is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these "ordinary" people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems

AUTHOR'S INTRODUCTION TO THE SERIES

discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my

AUTHOR'S INTRODUCTION TO THE SERIES

knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclination very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

AUTHOR'S INTRODUCTION TO THE SERIES

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II),

AUTHOR'S INTRODUCTION TO THE SERIES

The Pluralist and Possibilist Aspect of the Scientific Enterprise (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity, attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Preface

by Alan Drengson

The twenty-one papers gathered together in this volume have been organized under four broad section titles: (1) Empirical Semantics and ‘Truth,’ (2) Zeteticism, (3) Empiricism, Possibilism, and Pluralism, and (4) Metaphysics, Morals, and Gestalt Ontology. The narrative threads and themes running through these essays are woven together by Arne Naess’s active practice of open inquiry, an inquiry that can be both detailed and comprehensive and is motivated by his strong sense of wonder and his passion to know the world *in as many ways as possible*. It is not by chance that Naess describes in sympathetic terms the way of the zetetic, or lifelong seeker of knowledge, truth, and wisdom (see section 2). As such a seeker himself, he strives to know the world by actively engaging in many ways of observing, analyzing, experimenting, and searching. He regards his writings in much the same way, as works in progress.

Since life is a creative process, not a finished affair, there is wisdom in seeking through open-ended inquiry. From his in-depth study of scepticism, Naess came to appreciate especially the wisdom of a form of Pyrrhonian scepticism called *zeteticism* (chapter 10, “Pyrrhonism Revisited”). The zetetic seeks above all to know truth. Although the zetetic trusts that it is possible to attain truth and knowledge, he or she remains open and does not claim the truth (chapter 11, “Trust and Confidence in the Absence of Strict Knowledge and Truth”). The ancient zetetics, like their modern counterparts, realized that the world of experience is ever changing, that every event has many descriptions, that the world is full of surprises and incomprehensible mystery.

Early in life Naess was impressed by the unity and aliveness that he perceived in the natural world. His sense of wonder was kindled by the

many beings he encountered while playing as a child in the Oslo fjords and in the alpine meadows near Mount Halingskarvet (see SWAN X, chapter 33). In these natural settings he realized that his spontaneous experience had a unity and a sense of personal meaning connected with the natural world. The quality and complex nature of this unity were illuminated for Naess when at age seventeen he began his lifelong reading and rereading of Spinoza's *Ethics* in the original Latin. These childhood experiences and his passionate interests led him on to a lifetime of learning, research, and writing. He became a philosopher in the grand Spinozan way and also a lifelong alpine mountaineer (not just a specialist rock or ice climber). Spinoza is one of many philosophical summits he has climbed (see SWAN VI). Both of these quests—in nature and in philosophy—unite expansive perspectives with appreciation for details and how systems work within systems. In these quests Naess discovered that systems of thought, cultural systems, and ecological systems run in parallel paths but also form intersecting patterns. There are worlds within worlds, as noted in Buddhist philosophy (chapter 20, “Gestalt Thinking and Buddhism”).

Naess approaches research, learning, and philosophy much as a field naturalist studies the life-forms of the natural world. He seeks to understand concepts and words in their natural settings of language, tradition, and culture, just as he tries to see the creatures of the natural world in processes interrelated to smaller and larger ecosystems. The natural world can appear in our personal and cultural narrative traditions in many ways. For Naess, mountains are central to his way of life and personal mythology.

Influenced by Gandhi, Naess also seeks to know and communicate nonviolently. He believes research should be neither destructive nor elitist. The most comprehensive inquiry is open, philosophical, and global; and the questioner uses as many methods and conceptual forms of organization and order as are appropriate to a subject or problem. In texts, for example, words form sentences and sentences are ordered into paragraphs, which in turn make up chapters. Chapters are part of the whole text or novel; the book is part of a literary tradition. The patterns of order seen in wholes as *gestalts* are reflected at every level, from tiny to large. This is true also for the patterns of research that appreciate details in larger systems of meaning in texts and spoken conversations, from single words to sentences, to paragraphs, to a whole story, to a series of related stories, and so on to a mythol-

ogy. Each text or conversation forms a whole made up of many gestalts; and this corresponds as well to the way our experience is formed (chapter 19, “Creativity and Gestalt Thinking”). There are endless ways to organize each of these patterns and subjects.

Open inquiry entails investigating any subject or problem on every level and using many methods (chapter 14, “Logical Empiricism and the Uniqueness of the Schlick Seminar”). Open inquiry brings together our cognitive, emotional, sensual, spiritual, intuitive, and other capacities into a total view reflecting our sense of the whole of life. Naess’s philosophical and research endeavors can be traced to a life purpose that is practically oriented to helping himself and others to realize themselves. He wants each of us to become all that we can be. Because Naess lives by nonviolence, philosophy for him is an active *loving* search for wisdom amid comprehensive values within a great diversity of worldviews. He thinks we each act *as if* we had a total view of the world and our lives, *as if* we knew our ultimate values, and *as if* we knew the relations between our own life condition and the rest of the world. He believes that each of us knows more and is far more capable than we usually realize. Open inquiry is a way to pursue articulation of our total view and life philosophy since it intertwines our own views with other worldviews. Our attempts to articulate these views at a global level—using values that are comprehensive—lead us to ask questions such as, Why do I live the way I do? What are my priorities? What is the meaning of life? What do I most care about?

Each of us has a unique way of experiencing the world, of trying to characterize our experiences, and of expressing our total view through spoken or written language, music, dance, art, and myriad other means. Our most basic freedom is to choose how we will live and relate to others and the natural world. We must have values and we must also know something about the world. Science, even when a solitary undertaking, is one way to pursue knowledge by way of specialized, organized activities that involve others. There are many sciences and many other ways of knowing the world, but all these ways of knowing by means of specialized subjects and disciplines address only discrete aspects of our total spontaneous experience, which itself is inexhaustibly deep and rich. Through open inquiry, as a recursive process of reflective self-awareness, we eventually discover a great pluralism, even within a personal life in a specific cultural context.

When we try to identify ourselves and who we are, we find that our self-knowledge depends on our place and its local traditions; our family; and our personal experiences, culture, and language. In other words, each of us is uniquely embedded in a narrative community. (For broad narrative contexts, see SWAN I, *Interpretation and Preciseness*; for more specific issues, see chapters 1 and 5 in this volume, “Common Sense and Truth” and “The Empirical Semantics of Key Terms, Phrases, and Sentences.”) To know ourselves more fully, then, we must know ourselves in different settings, contexts, and experiences. Even then, none of these can fully define the whole reality of our spontaneous experience.

When we move to global perspectives, we encounter a great diversity of languages and cultures. Naess looks at these as if he were a cultural anthropologist from another solar system. He believes that individuals who are ordinary citizens, not experts or specialists (chapter 5), are a rich source for finding out about the nature of important concepts central to worldviews and values (see chapters 13 and 15, “The Glass Is on the Table” and “The Spirit of the Vienna Circle Devoted to Questions of *Lebens-* and *Weltauffassung*”). What are these semantic connections to the world? Our experience, we find from careful, self-aware examination, is organized by *gestalts*, patterns of meaning and intention inseparable from values and feelings, bound up with thoughts and language. Common sense, as a whole way of responding, seeks *truth* in practical, everyday terms: to know what is the case (chapter 1). The same is true for descriptions of what is *real*.

Reality is complex, deep, and multidimensional. It is possible for each of us to have a unique personal life philosophy and worldview within a great diversity of ecological systems and cultures. Even if worldviews conflict, there can still be understanding. Knowledge and truth, in Naess’s approach, are neither relative nor absolute. There is no single aspect of reality that is the only true or important one. Rather, there are many experienced realities, and all are part of larger and more inclusive *gestalts*. Reality is ever changing and inexhaustible, as our spontaneous experience shows.

Open inquiry into science and similar human enterprises leads us to an inescapable conclusion: there is no evidence-based proof that the future is determined or that probabilities are necessities (see SWAN IV). Scientific theory is just one of many ways of describing diverse aspects of the whole rich world. Naess affirms that possibilism (anything can happen) is liberat-

ing and in tune with open inquiry as a way of life. The future depends on our own actions. We can choose to live in harmony with others and with nature. The quality of our lives and experiences depends on our value choices. The more comprehensive our values and perspectives, the less fragmentary our total view. To be comprehensive and inclusive we must be nonviolent, however. When violent, we are exclusive and separate ourselves from others. Nonviolence is welcoming and inclusive. There are no value-free forms of experience, inquiry, or action (chapter 16, “Do We Know That Basic Norms Cannot Be True or False?”). Naess agrees with Spinoza that active emotions such as love and kindness increase our feelings of connection with the world and give us joy. Positive emotions allow an expansive sense of relationships and self; they enable us to be more effective and to have a higher quality of life.

Open inquiry does not end with specialized knowledge or specific truths about factual matters. It seeks to bring together or unite all ways of knowing and feeling. Thus, it gives us a life of reason that is integrated and whole, one that includes values and feelings as important components of a worldview (chapter 21, “Kierkegaard and the Values of Education”). Naess uses many forms of investigation and analysis—ranging from questionnaires and interviews (chapter 4) to observations, experiments, and textual analysis—to pursue questions such as, What is truth? What and how can we know? What are values? Can basic norms be said to be true? (chapter 16), What is the role of intensity of feeling in relation to moral life and suffering? (chapter 18), and What is the best education for a high quality of life?

One form of investigation he uses is based on empirical semantics, since our comprehension of the world is dependent on language. Empirical semantics takes a descriptive approach and uses a variety of methods to study how everyday language in a specific place is connected with the lives, experiences, and practices of the people of that place. In his studies Naess found that *truth* as explained by experts was more limited and less creative than as explained by ordinary people, who said everything the experts said and more (chapters 2 and 5, “Logical Equivalence, Intentional Isomorphism, and Synonymity” and “The Empirical Semantics of Key Terms, Phrases, and Sentences”). Naess sees no limit to our use of empirical methods, even when they are not equated with the specific epistemology of a

specialized branch of knowledge such as semantics, sociology, or psychology (chapter 12, “How Can the Empirical Movement Be Promoted Today?”). All researchers, even philosophers, should be willing to use empirical methods whenever those methods are appropriate.

Everyday language is the widest and deepest base for illuminating people’s whole life experience through narratives. How can we better communicate, and how does language function in different inquiries? Science and math are specialized, theoretical undertakings that use highly abstract language and concepts. These abstractions are not the concrete contents of the world and should not supplant the wholeness of our spontaneous experiences and ordinary ways of talking. All aspects of our lives and the world are open-ended, inviting creative and original responses from us. The ultimate aim of education is to help us become lifelong, self-actualizing learners and creative persons (chapter 21). As mature, self-realizing persons we are able to articulate our life philosophy. We come to realize, as Naess has, that we can lead a life of deepening quality and appreciation by enjoying the complexities and diversities in the world, including life-forms, cultures, and personal lifestyles unlike our own. Diversity and differences should not be seen as threatening. They should be welcomed. From wider perspectives we can see them with equanimity, as Spinoza observed.

Even the most narrowly framed technical questions, such as an investigation of how the word *or* functions, can be brought into a larger inquiry significant for daily life (chapter 3, “A Study of *Or*”). Just as we can place tiny organisms in their larger ecological settings, so it is with words in a language: we locate them through studying actual contexts of use connected with local and larger narrative traditions of meaning. At the highest level of global narrative ordering, we find mythopoetic themes with ultimate value and state-of-the-world premises that underpin religions, worldviews, and philosophies of life. The spirit of cooperative research and inquiry that characterized the Vienna Circle was the most important thing Naess learned from participating in those discussions (chapter 15). This for him is friendly, community-spirited inquiry that can investigate any subject, including worldviews. It opens to a way of life enriched by wonder as we find ever more perspectives, deeper feelings, greater clarity, and more unifying insights.

This volume focuses the spirit of open inquiry on values, knowledge,

PREFACE BY ALAN DRENGSON

and truth. In it Naess helps us better appreciate the complex structures that compose our whole unified spontaneous experience. We each can find ways to live a meaningful life within this highly pluralistic world, all the while expressing our uniqueness. At the same time, we can cooperate with others to preserve cultural and ecological diversity.

Author's Preface

Reflections on My Papers and the Selections in SWAN VIII–X

During my active life as a researcher and author, I have published far too much to be a polished writer. I have a long practice of working a set number of hours each day, and at ninety-two I have lived a long life. I hold to this even when I live in my mountain hut, Tvergastein. Over the years I have carried in many precious big reference books to put in its “library.” Writing philosophy in the hut, while looking over a vast mountain and alpine landscape, gave me a different feeling and perspective than when working in my office at the university or in my study at home. Each setting is very different and seems to bring out different aspects of the same subject and of myself. There are also the differences in dialect and local customs that fed my search for an ever more complete total view. To me this diversity is good to appreciate for its own sake. Writing, like teaching, is a way to find out things rather than just a dull report on the past. Writing philosophy for me is an ongoing project, a kind of meditation; in a sense, it is something that I must continue daily, because I continue to have more and more gestalts integrated into my total view with feelings of wholeness.

I never regarded the papers or even the books I wrote to be final drafts, but always works in progress, since my life, philosophy, and worldview are all in an ongoing process of change. Altogether, I have probably written thirty or so books published in various languages, and some in several languages. I have had many coauthoring adventures. There are manuscripts of books started but still in progress. I probably have some finished but unpublished book manuscripts. In the area of smaller-scale publications and writings, there are many kinds of pieces from very short to very long—for example, short reviews, long reviews, discussions, definitional pieces, long

AUTHOR'S PREFACE

single-subject essays, historically oriented papers, formal logic pieces, empirical studies, studies of conceptual systems—pieces on so many different subjects that I am somewhat embarrassed by my lack of attention to other things. I almost always write with passion but am not so keen to keep detailed records of my scholarly research, and at Tvergastein these resources are limited.

I have hundreds of manuscripts of articles, reviews, and other nonfiction pieces in my collection. The SWAN project has been a wonderful undertaking because it helped me to get my works organized to be more accessible to a larger audience. My dear wife, Kit-Fai, has been so good to my work that I can only describe her acts as beautiful. She, along with Harold Glasser, Alan Drengson, and others, plied me with endless questions about my works and individual pieces, for references, for greater clarity, for a better organization in time, and so on. The result is an assemblage of more than seven hundred published and unpublished papers.

We were choosing books to publish and papers for the anthologies of my selected works in English. We settled on seven books to be republished as the first seven volumes in the SWAN series. After some discussion with others, we decided to have three volumes of my papers for a total of ten volumes. We pondered what to include in the anthologies of papers and how to organize them. The result is a collection of writings that is a very deep and broad representation of the large number of papers of my work. The first two volumes are devoted to all the subjects I have worked on, from earliest to latest. These collections (SWAN VIII and IX) are organized in thematic sections somewhat chronologically. We decided to devote the third collection to my writings on deep ecology, because they are the most complete example of a total view that I have been able to offer.

Deep Ecology of Wisdom (SWAN X) is in many respects the most complete volume in the series in that it shows the total sweep of my work. It shows how my comparative and ecological inquiries brought together all my interests and studies. It was also a natural place for me to apply empirical semantics guided by a personal mythology, an undertaking that in the 1990s was offered in my book *Hallingskarvet: How to Have a Long Life with an Old Father*. The Tvergastein article in SWAN X (chapter 33) is an example of the philosophical, empirical, and semantic studies that were saturated with this place through time. SWAN X also includes a comprehensive bib-

AUTHOR'S PREFACE

liography of my works in English, which gives readers the most direct access to this whole body of work. Everything in my work is represented, from Spinoza's philosophy on emotions and Gandhian nonviolent communication, to essays on ontology and mountaineering. All of my work comes together in SWAN X. Readers will see the role of my desire to further nonviolent communication and my scepticism about there being only one worldview that is "true." These reflect my love of diversity.

I have mountain perspectives on worldviews. So many of them are beautiful and so suitable to their places! It is a wonder for me to behold this creative diversity. I found the same on the ground around my hut in the extreme mountain arctic conditions there. Even there, worlds within worlds! In that setting, life energies and mysteries are ever present. I came to approach all research from philosophy to ecology as if I were a field naturalist. This is reflected in my writings. Writing for me is a process of creation, discovery, and systematization; an art that helps me to assimilate and be whole with the more I see, as time goes on, from so many different perspectives. A synoptic view, almost holographic, emerged in my writings in many places. Traveling a lot added to learning these things.

Questions of meaning, preciseness, and interpretation are central to all that I do. We greatly underestimate ourselves in relation to our capacities, but we also greatly overestimate (violently at times) the seeming importance of disagreements over words that are frankly not very precise. The very effort to become more precise is itself an enlightening process that, once started, continues with a natural flow on its own. It is a settled practice that flows through my writing. Gandhian nonviolent communication also runs through my daily writings and practices; it is a second nature. My writings are active engagements, and for this reason I do not find them boring or painful. It is a joy to write about these many subjects that have engaged my passionate interest, especially in relation to the natural world.

Readers of these three volumes of selected papers who want to see my work in a more or less organic way that is roughly historical should read these papers in order, SWAN VIII through X. Those who want an overall look at my whole program of research, writing, and lifestyle should first read volume X. They could also read the last two chapters in SWAN IX, "How My Philosophy Seemed to Develop" and "Deep Ecology and Education: A Conversation with Arne Naess."

AUTHOR'S PREFACE

I have been reflecting on my writings and the way I approach and feel about this work. Let me say something about the different research hares I have chased and the lesser peaks and major mountains I have climbed in the process. I will do this by focusing on a recent ten-year period, from 1987 to 1997.

What has made me eager over the decades to continue writing articles in such great numbers? My spontaneous answer is that these are important questions not only for me but also for everything that it is worthwhile to sustain or develop further. By chance, this very sentence exemplifies a question of this kind: what is meant by “not only for me but . . .” and who is the “me” here? Among such questions there are some to which, as an optimist, I feel I can still contribute. These questions fall into two categories: those related to the ecological crisis and those philosophical questions far away from the ecological crisis. Writing for me is a series of adventures that are part of a larger mythopoetic nature narrative.

I thought that in recent decades the environmental crisis articles would make up the majority of my papers during this time, but to my astonishment that is not the case. For example, in the five years from 1991 to 1995, 61 percent of the articles published [by 1997] deal with general philosophical issues, and 68 percent of the unpublished ones are of that kind. Some of the articles are short, only five pages, which in part explains the large number of articles—78 published and 130 unpublished—during this time. I do very little to get my articles published.

One of the philosophical articles has the title “We need philosophies as life- and worldviews.” Many articles, some used in lectures in various parts of the world, deal with what I hope will characterize university philosophy in the twenty-first century: addressing central questions of what constitutes a meaningful life, diversity of cultures, and the nature of reality. Who are we, where are we, and what do we want most? The last question concerns value priorities. University philosophy, *not* the philosophy of “the man in the street” or of writers in general, has been centered on our talk itself, not on what we talk about. It is often talk about talk. The latest fad has been to stop talking about the variety of conceptions of the world in favor of talking about what are called social constructions, just to mention a focus different from life philosophy and worldviews. (Is nature a big *social* construction?) Clearly, as soon as we start *talking* about anything, for example,

about what is “talk,” what is “social,” and what is a “construction,” we are using a *social* creation, *intersubjective* talking. This does not undermine our excellent, direct relations to the matters we talk about and, I am glad to say, have different views about, some of which are quite personal and individual.

I will not bother to explain all the approaches I have taken within the philosophical sphere. I shall only offer some hints. In ethics I have taught, lectured, and written on the conception of being a “traitor,” a word applied to tens of thousands of Norwegians who in different ways were “on the wrong side” during the Nazi occupation of Norway by Germany. Many who did not deserve it were put in prison. Many believed that Hitler would win the war and that the continued independence and freedom of Norway depended on maintaining good relations with the occupying power.

Norway twice has said “No thank you!” to joining the Common Market, now called the European Union. I have written against joining on the basis of a philosophy that favors cultural differences. The EU is a big step in the direction of economic globalization, a formidable obstacle to cultural integrity and diversity. Some call this effort of mine “applied philosophy,” and I agree.

I have called a class of life- and worldviews *Spinozistic*, and my own view belongs to this class, but that does not *imply* accepting as true or valid any of Spinoza’s axioms and theorems. A long series of my articles deal with Spinoza, especially the central position of strong active emotions as a requirement for increasing our freedom and power, a rather un-Western view! I have explored and written about many Eastern philosophies, including Indian and Chinese. Some of my articles compare Spinoza’s views with Buddhist philosophies.

Gandhian studies continue with what I call the “principles of Gandhian communication,” a form of strict nonviolence. The role of the mass media in tough conflicts makes fairness of central importance. Treatment of an opponent as a fellow human being must be without blemish, even when his views seem to be, or are, horrible, despicable, and idiotic—and even if he is a mass murderer. This treatment is *compatible* with the expression of a strong and honest rejection of the views and actions of an opponent.

Felt suffering has been an important theme in my papers for many years. There is a strange, socially and politically important underestimation of acutely felt suffering and an overestimation of a quantified but not necessar-

AUTHOR'S PREFACE

ily *felt* suffering. If by chance a hundred people living distant from one another simultaneously suffer from a slight headache, this multiplicity of persons does not make the felt suffering stronger. I am deeply interested in the quality, the *feelings* of strong suffering, not some “abstract sum” of suffering.

Suppose we have a chance either to rescue a person from continued, systematic torture or to diminish the slight pain of a million people. As I see it, the choice is ethically unproblematic: rescue the tortured person! Politically, the implication is clear: much greater effort is needed to help people in certain extreme conditions. This, of course, cannot be done without angering dictators. What I call the *intensity principle* in dealing with suffering is generally not considered valid, and the possibility of saving people from continued torture is judged to be very small. As I see it, the problem is that usually only conventional means are considered. We need people with imagination, people like those who rescued thousands of tortured persons during the Second World War and the occupation.

As a philosopher influenced by analytic philosophy and an admirer of mathematical physics, cosmology, and pure mathematics, I regarded the one-hundredth jubilee (1991) of the birth of Rudolf Carnap and Hans Reichenbach as an opportunity to rethink my opposition to their philosophical standpoints and to logical positivism in general. I deeply respect their work, and especially their clearness in the matter of premise-conclusion relations. I have worked hard with a normative system that has only one ultimate normative premise, “Self-realization!” It is a result of the influence of my studies in logic and formal systems. In their work, the logical positivists encouraged each other, discussed with fairness, and used each other’s insights. They were not afraid of real disagreements. This is very unusual in intense philosophical discussions! I try to be fair and cooperate in discussions with my critics in social ecology and ecofeminism.

Going back to the five years from 1986 to 1990, I see that my papers are colored by contributions to the deep ecology movement. There is, however, a notable exception in my writings: what I call *gestalt ontology*. Ontology is an old branch of philosophy that tries to characterize what is real compared to what only appears to be real. Might a birch be bright green and joyful, or is it *really* colorless? Is joyfulness perhaps only a “projection” of joy being felt by an observer? Very roughly, my answer is that *spontaneous experiences* are direct experiences of something real. Joyfulness is

on a par with tallness and specific weight, when we only talk about pure realness. The experiences have a gestalt character. They are complex wholes, not merely atomistic.

The focus on spontaneous experience may be of positive value for deepening and intensifying positive experiences in nature. This focus also accepts the status of negative experiences. If, for example, a city dweller exclaims "Horrible, threatening" when suddenly facing a large waterfall, it is inappropriate to counter with the assertion "You are mistaken. It is really beautiful!" As to the character of being threatening, one might say that it would be a mistake to predict that the water will engulf us. This is just what gestalt ontology says. We can even have a slightly different version; it leads into rather professional philosophical terminologies. Its main thrust radically undermines the claim that only the exact physical sciences show us what is real. On the contrary, they increasingly focus on extremely *abstract structures* of what is real and do not, as sciences, describe any *concrete contents*.

As an outline of my work (from 1987 to 1997), the above gives a rough picture that is a fair description for earlier periods. I should perhaps add a word about my only published book in the 1990s: *Hallingskarvet: How to Have a Long Life with an Old Father* (1995). The main title is the name of a great Norwegian mountain; the subtitle refers to my personal relationship with the mountain. Already at age ten, I looked upon this mountain as being like a wise, benevolent father, but also as a supreme place to live. (My own father died when I was about a year old.) I found in this place an outline of my *mythopoetic life vision*. Many others, I suspect, are today creating such valuable myths of their own. I hope my writings encourage them. If so, these works will serve a useful purpose. So, finally, I am at the end of this written narrative. I invite readers to find their personal paths through this varied and multidimensional terrain of my writings. Follow your own wild passionate feelings.

Arne Naess

2004

A Necessary Component of Logic: Empirical Argumentation Analysis

Logic Has Empirical Components and Needs Empirical Research

The use in argumentation of the calculus of propositions, or of Alfred Tarski's theory of truth, or of any other formal logical instrument involving the terms *true* and *false*, presupposes some sort of agreement or similarity between formal usage and common usage. This relation is an empirical relation not adequately revealed through intuition, but capable of being increasingly clarified through painstaking research, applying some of the research instruments of contemporary social science.

What holds good of formal theories involving "true" and "false" holds good of the logical constants and the primitive terms of the so-called philosophical logics. In this paper I shall not elaborate on the use of terms but attack a broader subject, that of empirical components in argumentation analysis. In my view there is a startling difference in quality between the treatment of the formal and the empirical components of problems raised.¹

Empirical questions are largely "solved" through appeal to intuitions of a low degree of testability. The terms *true* and *false* are used in argumentation, and one may try to single out their various usages by means of empirical research. In one analysis, I did not succeed in reducing the usages to less than thirteen different kinds.

This article was reprinted with permission from *Argumentation: Approaches to Theory Formation*, edited by E. M. Barth and J. L. Martens (Amsterdam / Philadelphia: John Benjamins Publishing Co., 1982), 9–22.

In what follows I shall mention some useful conceptualizations in argumentation research.

Argumentation Analysis

The term *argumentation analysis* may cover a large variety of approaches, but I shall confine myself to one kind of approach among the many. It is characterized primarily by a painstaking way of treating certain empirical questions that arise when one studies cases of explicit argumentation. Cases of explicit argumentation usually occur as parts of discussions and debates, sometimes of a rather polemical kind. To deal with these empirical questions scientifically, we use history, psychology, sociology, political science, and so on, as auxiliary disciplines, as well as common sense and what we experience in daily life. In empirical argumentation analysis, cases of argumentation are studied as acts or processes of communication between people and carefully recorded in observational journals. (Today's televised debates furnish rich intersubjective material.)

The approach to argumentation analysis that I shall talk about here specializes in investigating the superbly *open and deep* kind of argumentation. It should, in my opinion, characterize philosophical research. In philosophy, the chain of arguments is never cut off for good where it is traditionally cut off, be it because nobody so far has asked further questions or because practical people or scientists say it is pointless to continue. I am thinking here of chains, for example, of the following kind: "Why do you hold that *p*?" — "Because *q*"; "Why do you hold that *q*?" — "Because *r*." . . . The "deep and open" approach to argumentation legitimizes continuation of the chain as long as the questioner can clarify what it is that he asks us to answer. This characteristic sets the approach apart from psychological and sociological studies of communication, and also from most classical and modern studies of rhetoric and debate. Increased collaboration with other approaches is not only possible, however, but highly desirable.

The approach is different from, but of course not incompatible with, those largely inspired by formal logic, such as that of Paul Lorenzen. An example of an argumentation rule in his approach is: if a person says *p* & *q*, it is sufficient to refute *p* or *q* in order to refute him, but if he says *p* v *q*, one then has to refute *both* *p* and *q*. Empirical studies do not start with propositions,

but with *utterances in concrete situations*. The functions of the utterances are normally complex, having relevant performative aspects, but careful analysis may result in “distilling” *p*’s and *q*’s appropriate for formal treatment.

A pronounced empirical approach such as the one I am advocating does not exclude theory construction. Botany is empirical, yet it contains, and also presupposes, theory construction. Debates, perhaps even more than flowers, inspire deep reflection!

Options in a Clarification and Assessment Game

One way of describing rules in use in a discussion (here between two persons, *A* and *B*) that are intended *to clarify and to assess* arguments in terms of options, is as follows. (*T* and *U* stand for utterances in the form of declarative sentences.)

(1) *A*: *T*.

(2) *B*: (2.a): Yes. (2.b): No.

(2.c): Please be more precise!

(2.d): Please be more understandable but within the framework of preciseness relations!

(2.e): Announce kind of claim. Three options: the sentence was meant

1. not entirely as a clarification assessment (but, for example, as a somewhat performatory, persuasive, rhetorical, exclamatory, hortatory . . . remark); or
2. as a theory formulation; or as a factual, descriptive, observationally true claim; or as a correctness claim; or as a theoretical acceptability claim; or . . . ; or
3. as a postulational contribution; as an invitation to accept a statement for the sake of the discussion.

(3) *A*: (3.a) as a reaction to (2.a): T_1 (a tentatively more precise formulation, put forward by *A* in order to test whether there is real agreement of some kind or other).

(3.b) as a reaction to (2.b):

1. pro-argument “ pro_1 ”; or
2. tentative reformulation: U , where $\text{Syn}(A, T, U)$ (that is, U is synonymous with T for A); or
3. tentative “precization”: T_1 .

(3.c) as a reaction to (2.c): T_1, \dots

From this kind of scheme it is clear that there are many options at each stage of a discussion. Furthermore, the number of “correct” or constructible courses of discussion increases very rapidly with the number of stages. As early as stage (3), the number of possible discussion situations is perhaps of the same order as it would be in a game of checkers.

In the next section, I shall concentrate on the move “Please be more precise!” either as a move made by the receiver or as a move by the speaker who makes his or her formulation more precise in order to test (that is, confirm or disconfirm) an argument for agreement or disagreement.

Analysis of Agreement and Pseudoagreement

Let us consider the following discussion, which is the shortest possible specimen of a class of very common discussions, to be called discussions of type D_1 (with A_1 and A_2 used as values for the participant variables A and B):

(1) A_1 : The newspaper is thin today.

(2.a) A_2 : Yes. (2.b) A_2 : No.

(3) A_1 : I mean, the newspaper has few pages today.

(4.a) A_2 : I agree. I thought you meant that the newspaper contained little news.

(4.b) A_2 : I disagree: the newspaper does *not* have few pages. I thought you meant that the newspaper contained little news.

Let me introduce three abbreviations:

T_0 : The newspaper is thin today.

T_1 : The newspaper has few pages today.

T_2 : The newspaper contains little news today.

With “syn” standing for “is synonymous to” and $-T$ standing for the negation of T , the above discussion may be rendered as follows:

Discussion, type D_1 :

- (1) $A_1: T_0$
- (2.a) $A_2: T_0$
- (2.b) $A_2: -T_0$
- (3) $A_1: T_0 \text{ syn } T_1$
- (4.a) $A_2: T_1, T_0 \text{ syn } T_2$
- (4.b) $A_2: -T_1, T_0 \text{ syn } T_2$

A person A_1 sends the declarative sentence T_0 to another person, the receiver A_2 . A_2 sends back his utterance of agreement or disagreement with T_0 . Concerning the verbal usages of A_1 and A_2 , we know that for A_1 , T_0 is synonymous with T_1 but not with T_2 , and for A_2 , T_0 is synonymous with T_2 but not with T_1 . It is reasonable to assume that, for each of them, T_1 and T_2 are more precise than T_0 .

Figure 2 is to be read horizontally, starting at the top:

If A_1 takes T_1 to be true (which he, as the sender, does in any case), and A_2 takes T_1 and T_2 to be true, then there is verbal agreement at (2.a) and real agreement at (4.a). If A_2 takes T_1 to be true and T_2 to be false, then there is verbal disagreement at (2.b) and real agreement at (4.a). Furthermore, there is verbal pseudodisagreement at (2.b). If A_2 takes T_1 to be false and T_2 to be true, there is verbal agreement at (2.a) and real disagreement at (4.b). Furthermore, there is pseudoagreement at (2.a). If A_2 . . .

Suppose this type- D_1 discussion has ended at step (4.a). Conclusion: there is real agreement between A_1 and A_2 , *but only relative to step (4.a)*. Let us suppose the discussion starts again, A_1 repeating T_1 as a step (5) and A_2

EMPIRICAL SEMANTICS AND ‘TRUTH’

A_1	A_2		Agreement Relation:		
T_1	T_1	T_2	verbal?	real?	pseudo?
t	t	t	a	a	
t	t	f	d	a	d
t	f	t	a	d	a
t	f	f	d	d	

Figure 2. Key: t = true; f = false; a = agreement; d = disagreement.

repeating T_1 as a step (6.a). After these moves, A_1 reveals a little more about what he means by T_1 , and the discussion takes on the same color as before:

- (7) $A_1: T_1 \text{ syn } T_{11}$
(8.a) $A_2: T_{11}, T_1 \text{ syn } T_{12}$
(8.b) $A_2: -T_{11}, T_1 \text{ syn } T_{12}$

If this second installment of the discussion ends at step (8.b), then it ends with real disagreement in relation to (8.b) and with pseudoagreement in relation to steps (2.a) and (4.a). Consider the following example:

- (7) A_1 : I mean, the newspaper *available here* today has few pages.
(8.a) A_2 : I disagree. I thought you referred to the newspaper with today’s *date*. (I got my copy in the city. It really has few pages.)

The diagrammatical representation (figure 3) is similar to the foregoing one.

Discussions of type D_1 may continue indefinitely. As a consequence of the steps taken, agreements and disagreements will be realized, as follows:

- | | |
|--|--|
| At the end of step (4.a), we may conclude: | real agreement between A_1 and A_2 about T_0 . |
| At the end of step (8.b), we may conclude: | real disagreement about T_0 ; pseudo-agreement in relation to steps (2.a) and (4.a). |

A_1	A_2		Agreement Relation:		
T_1	T_{11}	T_{12}	verbal?	real?	pseudo?
t	t	t	a	a	
t	t	f	d	a	d
t	f	t	a	d	a
t	f	f	d	d	

Figure 3. Key: t = true; f = false; a = agreement; d = disagreement.

At the end of step (12.a), we may conclude:	real agreement about T_0 ; pseudo-disagreement in relation to step (8.b).
At the end of step (16.b), we may conclude:	real disagreement about T_0 ; pseudo-agreement in relation to step (12.a).
At the end of every step (4i.a), where $i=1,3,5, \dots$, we may conclude:	real agreement about T_0 .
At the end of every step (4j.b), where $j=2,4,6, \dots$, we may conclude:	real disagreement about T_0 .

From the above, we conclude that either “real agreement” is to be understood as “real agreement in relation to step x in an argumentation,” or else real agreement is something unverifiable. The “relational real agreements” confirm a hypothesis about agreement; the “relational real disagreements” disconfirm a hypothesis about agreement. That is, they yield confirming or disconfirming *instances* in relation to the working hypothesis. Analogously, *pseudoagreement* and *pseudodisagreement* are relational terms, too.

Insofar as agreement is taken to be agreement about truth or falsity, we may conclude: the attribution of truth or falsity to something said in a discussion is in principle always ad hoc, preliminary, and tentative. If A_2 answers “true” at steps (4.a) and (12.a) in our example, this does not preclude his saying “false” at (8.b) and (16.b). A vaguer, more general conclusion is that verbal agreements and disagreements always remain essentially verbal. Agreement about *propositions* is never *reached* through argumentation but remains a more or less well confirmed hypothesis.

Degree of Definiteness of Intention (Discrimination Acuity) as a Factor in Argumentation

The simplest way in which the finite degree of the speaker's definiteness of intention influences patterns of argumentation (for example, with the D_1 pattern) runs as follows: At stage (2), participant B asks A whether by expression T_0 he means (the same as by expression) T_1 or (expression) T_2 . At stage (3), A answers that he has not made, or that he does not make, this distinction. B then stops the D_1 -type discussion at stage (4), because if T_1 were meant his answer would be yes, whereas if T_2 were meant it would be no. B may take the initiative in a new discussion by asking how A would justify not making the distinction.

In our example of a D_1 discussion, A_2 may at step (4) say, "I did not think of the distinction between being physically thin and being journalistically thin!" A_2 's *degree of discrimination* stops short of a distinction between T_1 and T_2 . A_2 may admit the relevance and validity of this distinction, and may take a stand on it. In that case, the discussion may continue.

In many cases the instigator of a discussion *must* have thought about a certain distinction, we would say. Consider the following start of a discussion (not belonging to the class D_1):

- (1) *The General*: Our glorious attack on the enemy starts tomorrow at five o'clock.
- (2) *The Major*: Herr General, do you mean five o'clock in the morning or five o'clock in the evening?
- (3.a) *The General*: Alas, that distinction did not occur to me.

The general's answer is clearly relevant for the communication intended by him. In other cases, the relevance of a question can be disputed; in still other cases, a question is clearly irrelevant. Here is an example in which the relevance is disputable:

- (3.b) *The General*: Of course at five in the morning.
- (4.a) *The Major*: By "glorious," Herr General, do you mean . . . ?
- (5) *The General*: Irrelevant! (And irreverent?)

Here is a case of clear irrelevance:

(4.b) *The Major*: Taking note of Einstein's rejection of absolute time, may I ask the general whether by "five o'clock" he means . . . ?

(5) *The General*: Irrelevant!

The Hermeneutical Spiral as a Factor in Argumentation

Suppose at step (2) *B* expresses disagreement with *A*, and that *A* then continues the debate, offering a first *pro-argument*. It sometimes happens that, in the light of that pro-argument, *B* changes his *interpretation* of the initial formulation, T_0 , and now accepts it. The pro-argument then has a *retroactive effect*. Generally, every move of the participants may have retroactive effects.

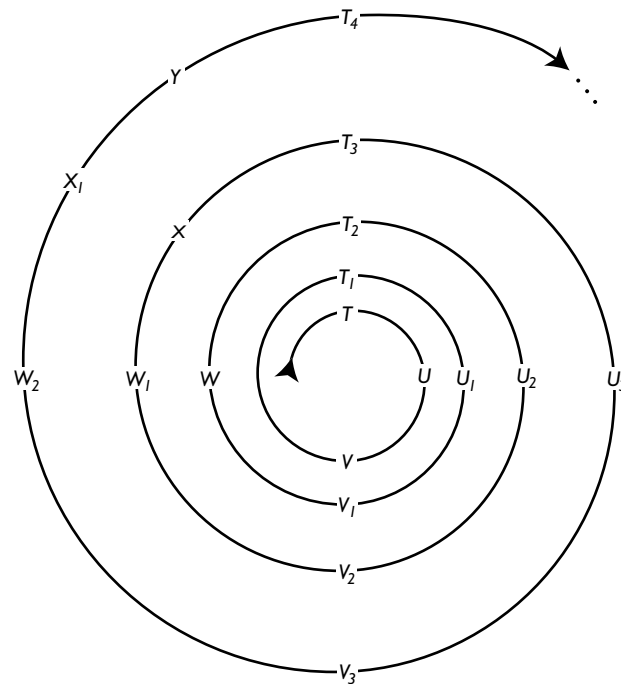


Figure 4.

In discussions of great and complex systems of thought, retroactive effects are indispensable and decisive. An all-embracing system of thought tends to color everything (including the very principles of argumentation). Starting from the sentence of the system that is offered as number 1 (for example, in a book), there is no way yet of explaining it adequately to the outsider. By going back to it again and again, however, as one reads more of the text, one usually supposes that a (noncontinuous) development of understanding will take place, which eventually will furnish a kind of understanding of the system as a whole (including sentence number 1). To illustrate that movement, a spiral serves us better than a circle.

Suppose a person starts reading the first three sentences of a text, namely T , U , and V . He interprets them to mean T_1 , U_1 , V_1 and continues, now reading W . This makes him change his first interpretations of T , U , and V into T_2 , U_2 , V_2 (see figure 4).

The new interpretations T_2 , U_2 , V_2 furnish a new context for W . Rereading this sentence, he now interprets it as synonymous with W_1 . The next sentence, X , may in turn occasion changes of interpretation, and so on.

In the case illustrated, the reader of the text always has to go all the way back to the beginning of the text after reading a new sentence. In such a case, a spiral movement is created.

I apply these principles to a particular philosophy in "An application of empirical argumentation analysis in Spinoza's *Ethics*" (in SWAN IX).

A Study of *Or*

The “Natural History” of Logic

The development of logic as a scientific discipline has brought with it an immense, purely verbal, manipulatory system of discriminations. In the case of another science, that of mechanics, Ernst Mach long ago, in his *Die Entwicklung der Mechanik*, traced the development of concepts of force from crude commonsense notions to the pinnacle of abstract mathematical conceptualizations in modern science. Immense elaborations of the latter sort, and the lack of gross, overt, motoric reactions, have obscured the behavioral aspect of scientific concepts and have made it very difficult for the scientist to remember and recognize a connection with prescientific levels of thinking, perceiving, and acting. Many people regard it as something next to mysterious that formal logic, from a strictly causal point of view, has attained its present form. One of the great tasks of scientists trained both in logic and in the behavioral or psychosocial sciences is to make this development understandable. A “natural history” of logic must be written just as one might write the natural history of horses or of tulips. Studying the learning or understanding or use of an inference such as “if p or q , and not p , then q ,” we may, roughly speaking, proceed by mainly (nonverbal) behavioral and perceptual techniques or by mainly verbal techniques. The underlying assumption of the former is that basic logical distinctions and procedures have a behavioral or functional basis just as, let us say, distinctions in mechanics or morals do. We assume that we are always within the general system of human discriminations as studied by psychology or,

This article was reprinted with permission from *Synthese: An International Journal for Epistemology, Methodology, and Philosophy of Science* (Dordrecht, Netherlands: Kluwer Academic Publishers) 13 (1961): 49–60.

more generally, by the anthropological sciences—and this holds good whether the distinctions are made by schoolchildren or by eminent professional logicians. The professionals were once schoolchildren, and we assume there must be a process of learning or development that can be studied in detail from a causal point of view through all the stages of an individual's life.

Use of Logic and Talk About Logic: Meta-Logical and Object-Logical Verbalized Tasks

In using mainly verbal approaches, it is important to distinguish two subtypes that may respectively be called the meta-logical approach and the object-logical approach. Let us say that we are interested in the genesis of conceptions of 'or' as used in modern symbolic logic. Two main concepts are mentioned in modern textbooks, the exclusive and the inclusive 'or'. In elementary textbooks or in prepositional calculi, they are usually introduced by matrices:

Inclusive disjunction (<i>vel</i> -junction)		Exclusive disjunction (<i>aut</i> -junction)	
p	q	$p \vee q$	$p \wedge q$
T	T	T	F
T	F	T	T
F	T	T	T
F	F	F	F

Using questionnaires, we may, for example, ask boys and girls the following: "Peter made a bet that the Volga is in Russia or in Romania. It is in Russia as well as in Romania. Did Peter win the bet?"

Or we ask, "Do you use *or* in such a way that if Edward says that Peter or Paul is a bachelor and Peter is a bachelor, then Edward has told the truth?" Or, again, "Can one infer that Jack is married to Joan if one knows that he is not married to Phyllis and that he is married to Joan or Phyllis?"

In the last two cases, the attention of the subject is turned by the instructor toward rules of inference or concepts of 'or'. The subject is, so to speak, induced to take up the role of a logician, and not merely of somebody using logical distinctions. In these cases, he exemplifies opinions

about logical distinctions. His point of view is meta-logical. In the first case, the subject is likely to use a concept or notion of 'or' that he *has*, perhaps without knowing about it, and that he uses without being aware of using it. The questionnaire is object-logical rather than meta-logical. The distinction is closely related to that between *use* and *mention* in modern analytical philosophy.

Both approaches lean heavily on the verbal task instruction, the questionnaire. One may try to avoid this by experimenting on nonverbal behavior or perceptions.¹ One may ask, What do the conceptualizations connected with *or* consist of, and how do they show up in nonverbal behavior and perception? In the following, I shall not speak of this approach in which verbal stimulation and observation of verbal reactions are minimized. I shall concentrate on the verbal approaches. The main objective will be to show how the study of the ontogenetic development of logic presupposes studies of how people use certain terms. Without knowing how people use connectives, we cannot know their logic.

Or and the Sentential Connectives V and A of Symbolic Logic Systems

The following is a report of a study of inferences involving *or*. In logic, "*p* or *q*" is mostly said to be a disjunction or disjunctive connection between *p* and *q*. The term *disjunction* must in that case express rather different concepts, because *or* has many different functions. Two of the concepts have well-known names: "the inclusive or" and "the exclusive or."

Important logical operations involving disjunction can be easily exemplified within the thinking of fairly young children. Some subclasses or kinds of such operations may be symbolized by the following schemata:

1	2	3	4	
<i>p</i> or <i>q</i>	<i>p</i> or <i>q</i>	<i>p</i> or <i>q</i>	<i>p</i> or <i>q</i>	
<i>p</i>	$\sim p$	<i>p</i>	<i>p</i>	
$\sim q$	<i>q</i>	<i>p</i> and $\sim q$	<i>p</i> , and <i>q</i>	
			undetermined	
5	6	7	8	9
<i>p</i> and <i>q</i>	<i>p</i> and <i>q</i>	<i>p</i>	<i>p</i>	$\sim p$ and $\sim q$
<i>p</i> or <i>q</i>	not: <i>p</i> or <i>q</i>	<i>p</i> or <i>q</i>	not: <i>p</i> or <i>q</i>	not: <i>p</i> or <i>q</i>

EMPIRICAL SEMANTICS AND 'TRUTH'

If the symbols \vee and $\&$ are used for *or* and *and*, some of the schemata are transformed into valid (questionnaire responses invalid) kinds of inferences (within the system of certain contemporary logicians). For example, in the system PM, we have:

(1v)	(2v)	(3v)	(5v)
$p \vee q$	$p \vee q$	$p \vee q$	
p	$\sim p$	p	$p \& q$
$\sim q$	q	$p \& \sim q$	$p \vee q$
invalid	valid	invalid	valid

Similarly, writing a (abbreviation for *aut*) for *or*, we get in this notation:

(1a)	(2a)	(3a)	(5a)
$p a q$	$p a q$	$p a q$	
p	$\sim p$	p	$p \& q$
$\sim q$	q	$p \& \sim q$	$p a q$
valid	valid	valid	invalid

One may ask, What is the genesis of these inferences? Ontogenetically, we may ask at what stage, if at any, do people who are uninfluenced by professionals begin to infer in this way? Are they able to formulate the inference rules? Do they conceive the rules to be violable?

This approach started with or-clauses in everyday language and worked in the direction of symbolic logic systems. One may, on the other hand, work in the other direction: pick out valid inference schemata within the systems of certain logical textbooks and substitute *or* for \vee , and so on. Or, more generally, we desymbolize the texts. In that case we get inference schemata that to a definite person, P , may be classified into three types: valid, invalid, and nonsensical (awkward, puzzling). The following are examples of schemata that, for many people, fall into the third category:

(5)	(7)	(10)	(11)
$p \text{ and } q$	p	p	$p \text{ and } \sim p$
$p \text{ or } q$	$p \text{ or } q$	$q \text{ or } \sim q$	$p \text{ or } p$

If we work in this direction, that is, present the subjects with desymbolized propositions from formal logic, the question of how the subjects interpret the formulations is not pressing. The propositions to be presented might be picked out with this problem in view, and the phrasing of the

desymbolization carefully selected. However, when the point of departure is the inferences formulated by the subjects in their everyday language, the question of interpretation is far more difficult.

Many professional logicians today tend to state that in ordinary language *or* is used for the concept of exclusive disjunction. If this were true, we would have an important and easy way of studying inferences expressed by *or*. We would then know that if, for example, Betty says "Peter or Oscar lives in Paris," she has intended to use the concept of "exclusive or." If she then adds that "Peter lives in Rome, therefore Oscar lives in Paris," and we make some plausible assumptions, we shall then be able to conclude that Betty has made a valid inference of type (2a).

We would be able not only to say this, but also to say that Betty *intended* to make a valid inference of this kind and succeeded. Thus, we would be able to recognize certain inferences, some valid, some invalid, by pointing to the occurrence of *or*. Unhappily, there is evidence that this kind of simple observation is quite insufficient to establish such conclusions.

A Questionnaire Study of the Use of *Or*

To study inferences in which *or* is used to express a connection between propositions, I administered a set of questionnaires to about 350 American college students between the ages of seventeen and eighteen. They had never taken a course in logic.

Qs37 No. 13: Jack's Marriage

Text: Yesterday A and B made a bet. A said, "Jack is either married to Joan or he is married to Phyllis." B said, "I bet you five dollars this isn't so." A accepted the bet.

Questions:

1. If Jack is married to Joan, then would you consider that A won the bet?
2. If Jack is married to Phyllis, then would you consider that A won the bet?
3. If Jack is neither married to Joan nor Phyllis, then would you consider that A won the bet?
4. If Jack is married to both Joan and Phyllis, then would you consider that A won the bet?

A second questionnaire, Qs37 No. 15, is identical with the first except that *either* is left out. Lexicographers and other linguists generally suggest

that "either-or" stresses disjunction in various ways. One might therefore expect a stronger tendency among inferences expressed by "either-or" schemata to involve the concept of exclusive disjunction. The pairs of questionnaires gave evidence of this tendency.

A third questionnaire is closely related to the first two. The setting is more oriental, suggesting polygamy.

Qs37 No. 17: Abdullah's Marriage

Text: Half the male population of a Near Eastern country enjoy more than one wife. One day, *A* and *B* made a bet. *A* said, "Either Abdullah is married to Siri or he is married to Nina." *B* said, "I will bet you five American dollars that this isn't so." *A* accepted the bet.

Question: If Abdullah is married to Siri, but not to Nina, would you consider that *A* won the bet? (Four questions analogous to those of Qs37 No. 13 were asked. A representative of the Middle East objected that there is no country with such a high incidence of polygamy, and the questionnaire will not be used again.)

Through a pair of questionnaires, Qs37 Nos. 19 and 20, a use of *or* rather different from that in the previous texts was studied.

Qs37 No. 19: The Fellowship

Text: Yesterday *A* and *B* made a bet. *A* said, "Jack is qualified to receive a fellowship in this department." *B* said, "I bet you five dollars he isn't." *A* accepted the bet.

Fellowships in this department are open to those who are competent either in Greek or in Latin.

Question: If Jack is competent in Greek, but not in Latin, would you consider that *A* won the bet? (Etc.)

Qs37 No. 20 is identical to No. 19 except that *either* is left out. In order to be able to study the effect of changes in the relations between *p* and *q* on the tendency to make inferences such as "If *p* and *q*, then *p* or *q*," we used a questionnaire in which *p* and *q* had the same denotation, making "*p* and not *q*" and "not *p* and *q*" contradictory or awkward or absurd:

Qs37 No. 18: George Washington

Text: In history book *X*, one finds the statement "George Washington crossed the Delaware." In history book *Y*, one finds the statement "The father of our country crossed the Delaware."

A said to B, "Either X is right or Y is right." B said, "I will bet you five dollars that this isn't so." A accepted.

Question: If X was right and Y was wrong, would you consider that A won the bet? (Etc.)

Further, we used a pair of questionnaires such that "*p* and *q*" was made into a rather strange proposition:

Qs37 No. 14: *The Temperature*

Text: Yesterday A and B made a bet. A said, "This evening the temperature at the campus will be either more or less than 60° F." B said, "I bet you five dollars this will not be so." A accepted the bet.

Question: If the temperature at the campus turned out to be more than 60° F, would you consider that A won the bet? (Etc.)

In Qs37 No. 16, the term *either* is left out.

Being interested in a comparison between the American use of *or* (*either-or*) and the Norwegian use of *eller* (*enten-eller*), I translated questionnaires Qs37 Nos. 13, 15, and 17 and administered them to Norwegian students in their first year of college who were taking an introductory philosophy course. No. 13 with *either-or* and No. 15 with *or* included the story about Jack's marriage. No. 17 with *either-or* included the story about Abdullah's marriage. In addition, the Norwegian students were given a translation of the Abdullah questionnaire with *or* in place of *either-or*. Two Norwegian versions of the questionnaires were used, owing to some doubts concerning the most adequate translation. However, the differences in results were negligible, and the results will here be presented together.

Results

A survey of the results is given in table 1.

"Unclassifiabiles" are those answers to question 4 that were neither a definite yes nor a definite no; for example, "Yes, or perhaps no." "Unclassifiabiles" are also answers other than the standard yes, yes, and no to questions 1, 2, and 3, respectively; other answers were considered strong symptoms of misunderstanding.

One of the main results of our studies with Qs37 is that the conceptual structures involved in or-inferences at prescientific levels show marked

Table 1: Survey of Results of Or-Questionnaires Qs37.

		Excl. %	Incl. %	N Clas- sifiable	Unclass- sifiables
No. 13 Marriage Jack (American)	e/o	89	11	36	3
No. 13 Marriage Jack (Norwegian)	e/o	94	6	127	25
No. 15 Marriage Jack (American)	o	75	25	36	6
No. 15 Marriage Jack (Norwegian)	o	88	12	57	12
No. 17 Marriage Abdullah (American)	e/o	74	26	66	11
No. 17 Marriage Abdullah (Norwegian)	e/o	88	12	93	15
No. 17 Marriage Abdullah (Norwegian)	o	74	26	69	19
No. 18 George Washington (American)	e/o	76	24	55	8
No. 14 Temperature (American)	e/o	72	28	36	3
No. 16 Temperature (American)	o	67	33	27	12
No. 19 Fellowship (American)	e/o	2	98	65	7
No. 20 Fellowship (American)	o	2	98	44	9

Note: e/o = question with “either . . . or”

o = question with “or”

N = number of subjects

variations depending on the subject matter of p and q and the verbal context (including the instruction).

At the one extreme we may place Qs37 No. 13, the story about Jack’s marriage in which *either-or* is used. About 90 percent (94 percent of the Norwegians) answered in a way that would be valid if their conceptual structure involved the exclusive disjunction. That is, their answers were of the FTTF variety. About 10 percent (6 percent of the Norwegians) gave answers suggesting TTTF.²

As for the interpretation of these 10 percent, it is tempting to say that they have drawn invalid inferences. For seventeen-year-old youngsters, the Qs37 questionnaires represent a very easy kind of task considered as a problem in reasoning. There is nothing positive to suggest that the 10 percent

did not *intend* to draw an inference in accordance with a rule “If p and q , then p or q .”

On the other hand, the answers of the 90 percent in no way prove the presence of a conceptual structure involving the rule of inference “If p and q , then not p or q .” We can only say that the answers are *compatible* with the hypothesis of the existence of such a rule or a disposition to follow such a rule.

We may place Qs37 Nos. 19 and 20 (the fellowship) at the other extreme. To these questionnaires, 98 percent answered as if they were thinking according to a rule of inference “If p and q , then p or q .”

The temperature questionnaire that used *or* gave results in between the previous ones, with 67 percent suggesting the use of an “exclusive or” inference.

A small team of graduate students of logic (and philosophy in general) was asked to try to construct a set of questionnaires of such a kind that the ratios between FTTF and TTTF answers would show a variation all the way from 9:1 to 1:9. They did not succeed, however, in finding suitable questionnaires for the ratios of the middle region, around 1:1; the nearest to this ratio was 2:1.

The task involves the use of hypotheses about what determines the answers of the subjects. Among the various hypotheses discussed, we may mention the following:

1. In betting contexts, subjects tend to use an inference rule corresponding to the “exclusive or” if they find the probability of p & q highly improbable. The marriage of Jack to both Joan and Phyllis was presumably judged highly improbable; thus we see a 90 percent use of the “exclusive or.”
2. In betting contexts, subjects tend to use an inference rule corresponding to the “exclusive or” if they do not think of the possibility of both p and q being true. The possibility of bigamy presumably did not occur to the subjects; therefore, 90 percent.
3. If, in any context, the truth of p or of q is implied to be a sufficient condition of a state of affairs, p and q will be considered a sufficient condition. That is, a rule “If p and q , then p or q ” will be used. Thus, in the context of Qs37 Nos. 19 and 20, the subjects interpreted

knowledge of Greek as well as knowledge of Latin individually to be a sufficient condition for obtaining a fellowship; therefore, they found the combination of Greek and Latin sufficient. Accordingly, they answered as if using a rule "If p and q , then p or q ."

4. The particle *or* is sometimes used not disjunctively, but as a coordinating particle (see *Oxford Dictionary*). It is then used in "unstressed positions" ("Do you want whiskey, gin, vermouth, or cakes?"). In such cases, the compatibility or other relations between p and q are largely left undetermined. Therefore, "If p and q , then p or q " is considered valid when *or* occurs as a coordinating rather than a disjunctive particle.

The answers to Qs37 Nos. 14 and 16 show in a very convincing way the absence among the subjects of abstract general rules of inference corresponding to those of symbolic logic systems—even if a rule is said to be present when only implicit or as a disposition. The awkwardness or impossibility or absurdity of temperatures being neither more nor less than 60° , or being both, disturbed the subjects and provoked long discussions. Very few reacted rapidly and consistently, as would be expected if they had applied an inference rule of a simple kind. The complexity of the answers may be taken as symptomatic of the existence of very complicated inference rules. It would, however, require much work to construct systems such that answers would fit in.

A small number of subjects (less than 10 percent) wrote down comments to their answers, and from these it can be gathered that some kinds of *inference rules* are in use, mostly referring to *or*. Thus, subject 253 answered no to Qs37 No. 15, question 4, and added, "Jack is married to Joan or he is married to Phyllis. Therefore being married to both, he cannot be married to Joan or Phyllis, for the *or* excludes one."

On the other hand, some comments suggest that their authors do not conceive of any rules but simply perceive or intuit *what is said* by A and B . The short comment of subject 303 to Qs37 No. 13, question 4, reads, "A said 'one or the other', not both." To the awkward question 4 of Qs37 No. 14, subject 338 exclaimed, "This seems somewhat ridiculous—the temperature in the same place can't have two values at the same time. However, A lost since he said 'either . . . or'."

This last comment is of interest because it suggests that its author believes in the existence of one constant meaning or function of “either-or” overruling the consideration that two temperatures at the same place is ridiculous, and having nothing to do with the contents of the disjunction.

The answers to the fellowship questionnaires indicate, however, that the expression “either-or” rarely does induce people to answer in the direction of the “exclusive or” if the content of the proposition makes the use of the “inclusive or” somewhat more natural.

In the contexts suggesting the use of the “exclusive or,” the introduction of *either* induces some more people to choose this interpretation. This holds true also for the Norwegian *enten*. On the whole, the Norwegian students seem to use their *eller* more for the exclusive disjunction than the Americans use their *or*. However, the same trends are present in the Norwegian material as in the American: a tendency to abandon the exclusive interpretation when *either* (*enten*) is left out, and when the possibility of both *p* and *q* being true is pointed out, as in the context of Abdullah’s marriage.

In any case, it is wise to infer from the answers that many *inhaltliche* considerations are relevant for the subjects when they are asked to judge inferences involving *or*. Or, to be more careful, considerations are relevant that at least in relation to certain logistic systems are *inhaltlich*.

With regard to the material covered by the questionnaires, to what extent do professional logicians have hypotheses concerning logical inference among nonprofessionals? A small number of professionals were asked to state what might be the most frequent answers to the Qs37 questionnaires. The straggling answers confirmed the impression that it is difficult and hazardous for professionals to pronounce on how nonprofessionals reason and how they use the logical connectives without having performed a series of experiments. Only, however, with close reference to experiments and tests is a terminology likely to develop that can function as a common idiom for investigators who favor different theoretical approaches.

Common Sense and Truth

The number of so-called theories of truth is—as all interested in philosophy know—very large. Less numerous are the theories concerned with the notion of truth among people who are not (supposed to be) philosophers. I shall call these latter theories common-sense (cs-) theories. There are theories about a “Volkswahrheit,” “Wahrheit der grossen Haufen,” “Wahrheit des Kindes” (Heinroth), “truth as viewed by all people” (Beatrice), “the popular use of ‘truth’” (Brandt), “‘Wahrheit’ in üblicher Bedeutung” (Carnap), “‘Wahrheit’ in der Umgangssprache” (Carnap, Tarski), “la notion commune que la conscience humaine se fait de la vérité” (Leroux), and so on. Thus enumerated these theories may seem little connected with one another, but in fact the discussions centering on formulations of this kind are carried out *as if* they all dealt with the same subject: the one is found “better” than the other, some are “refuted” by some others, and so on. Moreover, it is not uncommon to find references to “that which is limited by the bare meaning of the words *true* and *false*” (Husserl and others), to truth as revealed “wenn man einen Bauer fragen wollte” (Lossius), or to truth “if common sense had been asked to formulate” it (Marhenke). These references are observable in current discussions about “truth” and might give the impression that investigations of some sort have been carried out—for example, systematical observations of how the word *true* is used, or inquiries into the type of answers received if those in one’s non-philosophic environment are asked to define truth. This impression is, however, apt to fade away as soon as one reads some 100 theories and ob-

This article was originally published in *Theoria: A Swedish Journal of Philosophy* 4 (1938): 39–58. It has been revised for this collection.

serves how the authors contradict one another, how they fit their cs-theories into their general theories of cognition or reality, and how they seem to avoid any actual description of experiments. I think that even superficial questioning of nonphilosophers makes it hard for anyone to believe that the philosopher has got his “knowledge” about peasants’ and others’ use of the word *true*—or about the views of nonphilosophers on the notion of truth—by asking any other person than himself. If they, for example, have given their wives and their assistants the occasion to utter what they think about the matter, or if they have asked a philologist, how could they write as they have done? This is a difficult psychological problem, and I shall not try to defend any special solution of it.

This is not the place to describe the philosophical cs-theories, but to aid the inexperienced reader we shall quote some at random:

Every belief asserts that something (in the widest sense of something) possesses a quality, or is connected with something by a relation. If the belief is true, then that thing does possess the quality or is connected with something by the relation. The possession of such a quality, or the connection by such a relation is a fact, according to our definition. And if the belief is true it will correspond to the fact. . . . If common sense had been asked to formulate what is to be meant by the truth of a belief, this is probably what it would have written, just as it would have agreed to McTaggart’s definition of the falsity of a belief.

(Marhenke 1922: 169)

[D]e beaucoup les plus nombreux traducteurs fidèles du sens commun, caractérisent la vérité comme un accord de l’idée et de la réalité, une relation de correspondance entre notre pensée et son objet. . . .

(Leroux 1923: 302)

According to Richter (1908: 16) there are some characteristics of truth that are fundamental and generally accepted. Among them are “Unveränderlichkeit der Wahrheit und deren Evidenz für alle Subjekte.”

Le sens commun appelle *vraie* toute idée conforme à la chose qu’elle représente. Le vrai de ce point de vue réaliste, c’est donc l’être même. La notion de vérité répond alors à la formule scolastique: *adequatio rei et intellectus*.

(Le Roy 1930: 182)

Without saying how he has arrived at the conclusion, Le Roy declares that this theory of the nonphilosophers implies a “realistic ontology” and “the criterion of fact.”

Walker finds that objective evidence is the criterion of truth and “the only criterion which the ordinary man uses.” Objective evidence he explains thus:

We assent because we are forced so to do by the object itself, because it is the object itself and not some other object or cause which seems to have manifested itself to our mind. We assent because that to which we assent is “obvious” and we cannot help assenting.

(Walker 1910: 641)

In one respect, all nearly agree in regard to the definition of the term, for all admit that by truth is understood a harmony,—an agreement, a correspondence between our thought and that which we think about.

(Hamilton 1870: 63)

Consider again too, in this connection, the scholastic definition of Truth, which is also the current definition, the definition of popular philosophy, being that of the direct mode of consciousness as distinguished from the reflective. That definition is—the agreement of our thought of things with the things themselves.

(Hodgson 1878: 213)

Der Willensakt, welcher im Urtheil zu der Vorstellungstätigkeit hinzutritt, ist von den Stoikern als Zustimmung (*συγκαταθεσις*) bezeichnet worden, und es fragt sich nun, was diese Zustimmung bedeutet. Es ist begreiflich, dass das naive Denken an diese Frage mit der Voraussetzung herantritt, die Bedeutung der Zustimmung, d. h. der Sinn der Wahrheit müsse immer derselbe und ein für allemal bestimmbar sein.—Das ist nun aber gerade nicht der Fall, sondern eine kurze Ueberlegung beweist, dass die Wahrheit in sehr verschiedenem Sinne gemeint sein kann. Die Wahrheit eines mathematischen Satzes, die Wahrheit einer historischen Hypothese, die Wahrheit eines Naturgesetzes—sind sie durch dieselben Merkmale zu bestimmen? Man wird von dem unbefangenen Denken vielleicht diese Frage dahin bejaht finden, dass die Wahrheit unter allen Umständen in der Uebereinstimmung zwischen der Vorstellung und der Wirklichkeit besteht. Aber man wird sich leicht überzeugen, dass das schon für jene drei Beispiele nur in sehr unvollkommener Weise zutrifft.

(Windelband 1914: 196)

[W]ir haben darin vielleicht den vollständigsten Ausdruck der naiven Weltanschauung, welche den vorstellenden Geist in einer Umwelt befindlich annimmt, die sich in ihm irgendwie wiederholen soll, und alle die sinnlichen Tropen, mit denen die Sprache den Erkenntnisprozess bezeichnet—abbilden, spiegeln, erfassen, begreifen usf.—zeigen, aus der Tätigkeit der verschiedenen Sinne entnommen, nur die verschiedenen Arten, wie eine solche innere Wiederholung des aussen Wirklichen vorgestellt werden kann . . . “die transzendente Wahrheit”—so mag dieser erste und naive Wahrheitsbegriff genannt werden—ist in ihrer ursprünglichen Bedeutung nicht aufrecht zu erhalten.

(Ibid., p. 197)

Unbeirrt durch solche Erwägungen hält das naive Bewusstsein jenen ersten Wahrheitsbegriff fest, und soweit es darin nicht schwankend wird, sprechen wir nach Kants Vorgang vom Dogmatismus der Erkenntnislehre, welcher ohne weitere Kritik das Gelten seiner Vorstellungen als ein Erfassen oder Abbilden der Wirklichkeit behauptet.

(Ibid., p. 214)

I think that such formulations are interesting objects for psychological and sociological research, and it is mainly as such that I intend to deal with them here. Looking at the truth theories as a naturalist looks at some interesting flowers, one may ask, How do truth theories evolve? What determines the choice of theories among the professional philosophers? Which traits of philosophic culture favor the production of truth theories? Is it possible to find laws that hold for the choice of theory? What distinguishes truth theories from an average theory of contemporary natural science? Is it possible to domesticate “truth theories,” and if this is possible, which relations then hold between variation under domestication and variation in nature? To get some material with bearing on these and similar subjects, I decided to try to produce truth theories “experimentally” by asking people without philosophic training all sorts of questions that would in a natural way lead them to speak about ‘truth’. A lengthy monograph now to be published discusses this and similar subjects. I shall in this article indicate how they are dealt with.

Without a clear idea of what the philosophers aim at when they construct theories of truth, it is difficult to take a view of what they call the nonphilosophers’ opinion of the truth notion. How is it possible to control what the latter say, ignoring this?

I have never heard a nonphilosopher state something similar to a “view on the notion of truth” without being urged to it. To collect material for this subject it is therefore necessary to *construct situations* to which it is probable that people react with statements analogous to “opinions on the truth notion.” Of such reactions, certain types are more valuable than others for purposes of comparison. The statement “One will never find the truth” is especially valuable if the person has also given a definition of truth. If he has not, we do not know, for example, whether by “truth” he means “statements firmly believed by all persons,” “agreement with reality,” “Reality,” or something else. Utterances such as “*True* means agreement with reality” and “The common characteristic of what is true is that it serves life” are valuable too because of their close resemblance to basic formulations of philosophers: philosophic definitions of truth—the nuclei of truth theories. It is of interest to know what things a person calls true after having heard how he defines truth. The cs-theories do not usually mention this last subject, but I think it advisable to know something about how it might control them. Considerations of this kind forced me to adopt a questionnaire method, to try to stimulate people with verbal utterances, for example, of questions about “the notion of truth.” Actually, I used a questionnaire method with the character of personal interviews, assisted by standard lists of questions that functioned as starting points for discussion.

Experiments show that the person thus stimulated probably answers with “definitions” and that his reactions generally have no *specific* nonverbal traits: he may run away, laugh, fall into a stupor, look down at the floor, but these reactions also occur in situations in which questions about the notion of truth are lacking as stimuli. *Verbalized* unities of behavior should therefore form our first and most important subject. My first method for detecting such unities was to ask a direct question such as “What is the common characteristic of what is true?” and then to examine carefully in which possible unities of verbalized behavior the respondents’ answers occurred. This was done by letting the person talk without trying to lead the conversation by posing any further questions concerned with truth. The subjects touched upon by the person were adopted as subjects for further questions. All *Einfälle* of the person were written down to get a picture of the verbalized behavior unities thus connected with the reactions to my introductory question.

After using this method with about sixty respondents, I gave it up and

adopted a rigid questionnaire method. The main reason for the change of method was to get valuable statistical material with a bearing on all basic philosophic questions discussed in "truth theories." The value of such statistical material is proportional to the stability of the conditions under which tests are carried out. I consequently tried to standardize the situations. This was done by standardizing the *questions*, leaving less room for undirected explorations. During the collection and interpretation of the material, supplementary schedules were constantly worked out to meet the need for information not previously desired. Not all questionnaires concerned the notion of truth: a great many truth theories speak promiscuously about what is true, right, correct, certain, false, wrong, erroneous, and so on. I therefore worked out questionnaires each of which was concerned with one of these expressions. For the sake of brevity, in the following I shall refer to the different notions as "S-notions" or as "truth and similar notions." Three hundred people were examined according to the standardized questionnaires. The average duration of the examinations was about one hour. No one was examined for less than ten minutes, and some people were examined for more than ten hours.

To give an impression of the questionnaires used, I shall indicate the contents of an "average" questionnaire: (1) Request for examples of something true and questions about whether the examples put forth have a common characteristic. Request to define 'true'. (2) Questions concerning the existence of something absolutely true. Requests for examples. (3) Question regarding the person's possible familiarity with the subjects under discussion.

All conclusions arrived at are based on sampling: in the field subjected to investigation no other method is possible. It is impossible to ask *all* people about truth, impossible to inspect *all* produced truth theories. *None of my conclusions I think in any way secure*—I predict that a considerable percentage of the statistically obtained correlations (say, 15 percent of them) would prove deceptive if the sample size were enlarged from 300 to 1,000 or 5,000. There are people who think that clear perception of this limited security must imply a severe judgment on the scientific worth of the correlations. I cannot agree with them: our daily life-knowledge and much of our psychological and sociological knowledge are of the same type. The difference is often only in the formulations: absolutistic formulations very often

predominate in fields in which careful statistical formulations should prevail. If 80 percent of sociological predictions based on correlations found in a sample of 100 individuals are confirmed in a sample of 1,000 individuals, I think the predictions are of a high standard. In the last part of this article, I have allowed myself to state very far-reaching theories concerning truth theories. It should be unnecessary to point out that one may accept the statistical results of my work without in any way accepting my theory on the “dynamics of truth theories.”

The protocols written by the examiner or (less often) by a respondent contained 500 “definitions” of the notion of truth (or similar notions) produced by 250 respondents. As definitions, I classed statements of a very general character resembling (or being identical with) what are called definitions by the “professionals” (the philosophers who create and publish truth theories).

The ages of the respondents ranged from 12 to 65, their school training from none to baccalaureate. No person who was studying or had studied philosophy at the university was included. Exceptions were respondents who had read two or three books on philosophy but had never read or heard anything about truth theories (according to their own account). The following list contains the definitions of a few of the respondents, together with the examiner’s questions. Many of these questions, *Q*, do not come from the questionnaires but were determined by previous answers, *A*, of the respondent.

Q: Is there anything absolutely true?

A: (21-year-old school senior, Norwegian “gymnasium”) If it agrees with one’s own feelings and sense impressions.

Q: What are some common characteristics of things that are absolutely true?

A: (17-year-old school senior) What cannot be otherwise.

Q: What is the common characteristic of that which is true?

A: (21-year-old, baccalaureate) That it is real.

A: (16-year-old school senior) That it is the absolutely logical.

EMPIRICAL SEMANTICS AND 'TRUTH'

A: (15-year-old, less than ten years of schooling) The common characteristic of all that is true is that it is in agreement with reality.

A: (17-year-old school senior) Subjectively: by its effects on the individual; the characteristic of the true is that it satisfies all parts of one's critical intelligence.

Q: What is the common property of that which is true?

A: (15-year-old, less than ten years of schooling) That one can prove it.

Q: What is the common property of true statements?

A: (19-year-old, less than ten years of schooling) That they are said with a certain strength.

Q: What is the common characteristic of that which is true?

A: (16-year-old school senior) That it really exists.

Q: Why do you use the word true?

A: (16-year-old school senior) It is something that we have been taught to believe.

This short list (chosen at random) may already convince the reader that many different views of the truth notion are represented. One may classify the definitions into as many groups as one wishes: 480 out of the 500 definitions were different with regard to formulation. Certain tests indicate that most formulations were viewed by the respondents as having different and incompatible meanings. We shall here briefly mention three methods of grouping the definitions. The first method (Gr1) leads to groups comparable with the groups constructed by philosophers who classify truth theories (correspondence, coherence theories, and so on). About 30 percent of the definitions could not, however, be satisfactorily placed in any philosophical group. According to Gr1, the definitions fall into about forty-five main groups. More than half of the 500 definitions (of the "standard material") cannot easily be classified into any of these groups: they may equally be said to belong to two or more of the groups or to belong to none of them.

Of the Gr1 groups, some may be of interest to the reader: Gr1.1 in-

cludes all definitions according to which truth means agreement (accordance, *Übereinstimmung*) with reality (or “the real,” “things,” “the thing spoken of”). A considerable percentage of philosophers are of the opinion that this is the definition *adopted* by nonphilosophers or that nonphilosophers *implicitly accept* it. This group is fairly well represented among the “amateurs” (16 out of 500 definitions), but there are other types of definitions that are more common among them, and, what is more important, no Gr1 group contains as much as 15 percent of all definitions. It is a waste of time to argue that when respondents say, for example, “True is what is so,” they mean the same as when they say “True is what agrees with reality.” Such identifications may in some cases be justifiable, but generally they are not. Consequently, no definition of truth can be said to express “the nonphilosophers’ view of truth.” There is no such view. One can just as well (or perhaps even better) speak of *the* philosophers’ view of the truth notion. Statistical analysis of the *examples* of truths put forward by nonphilosophers points to the same conclusion.

The most frequent Gr1 group of definitions is the one according to which an *S*-notion is defined as something that can be proved or that actually has been proved; 57 out of the 500 definitions can be said to belong to this group. It can be said to be a low-education group: the greatest frequency of this definition occurred among respondents with less than ten years of school training. Only 1 out of 400 definitions adhered to by professionals could be placed in the “proof” group.

Next to the “proof” group, many other groups can be placed, and among these the “agreement with reality” group. These two groups’ relative frequency can be distinguished one from the other only by adopting rigid definitions of “frequency.” There are several definitions of value: one may investigate the frequency distribution among respondents of *all* classes of age and education or among certain of them, thus distinguishing several types of nonphilosophers. Or, one may calculate “frequency points” by which respondents who put forth several definitions as equally or nearly equally good are distinguished from those who put forth but one definition.

According to a grouping principle called Gr4, the definitions are classed in two groups. The principle is founded on the difference between definitions with reference to “something human” (Gr4.2) and definitions

without reference to "something human" (Gr4.1). The first group of definitions tends to place man at the center of attention; the second evades mentioning anything connected with man and his activities. Accordingly, we call the formulations of the first group homopetal and the formulations of the latter homofugal. Examples of marked and obvious homopetal definitions are "(True is) what I perceive directly by my senses," "As a rule it sounds natural," and "No one is able to change it." Examples of homofugal definitions are "what is so," "the facts," and "what has happened."

According to the sayings of most philosophers (with fifty cs-theories taken into account), Gr4.1 should occur more frequently. This is not the case, however. Only 16 percent of the amateurs' definitions belong to Gr4.1 whereas 32 percent of 200 definitions put forward by philosophers belong to it. Curiously enough, the group Gr1.1 ("agreement with reality")—*also imputed to the nonphilosophers*—is the most frequent Gr1 group among the professionals (with 400 definitions in philosophic literature taken into account; definitions of "formal truth," "mathematical truth," and so on, are not included among the 400).

According to Gr6—the third principle to be mentioned here—definitions are classified according to the manner in which the respondents, by using their formulations in discussions, would be able to discern truths. How many factors have to be taken into account to identify them? If a person states that "agreement with reality" is the criterion of truth, one may say that he, *according to his formulation*, must take two factors into account: there must be a relation of agreement, and there must be a reality. It was found that the number of factors to be taken into account increases rapidly with the degree of education of the person, the correlation being much closer than in the case of Gr1 groups of definitions. The average number of factors varies for each class of age and education from 1.5 (those under sixteen years old) to 2.5. The corresponding average value of 200 definitions proposed by philosophers was 3.0.

The reader may ask whether one may look upon the definitions as *real opinions* of the respondents or whether they are mere *Einfälle*, mere words occurring to them during examinations. Various things point to the conclusion that in the majority of cases the definitions are opinions representative of the people holding them. They are the "solutions" of the problem as viewed by the respondents.

Some respondents mean that “truth” and similar notions are ethical notions. Statements such as the following are not frequent among the professional truth theorists, and they are consequently excluded from the lists of their “definitions.”

“(The common characteristic of what is right is) that conscience does not protest against it.”

“True is what conscience says.”

“Truth is the opposite of lie.”

“What is untrue is always decorating itself with a circumstantial speech.”

The relative frequency of moral views on what is true decreases with increasing age and education, but there are people who have received academic education in philosophy and nevertheless entertain such views.

Classifying the respondents by age and school training (“education”) shows that, statistically, younger and less-educated respondents are inclined (on average) to prefer different types of definitions from those most frequently used by older or more educated respondents. The preference is one of degrees. No type of definition appears to be exclusively adhered to by a single class of people. This holds good for the more frequent types of definitions.

There is no evidence to support the view that philosophic education radically changes a person’s attitude toward definitions. This is seen when comparing the types of definitions chosen by people without any philosophic school training with the types chosen by people with philosophic school training. Concluding formulations are retained, whereas arguments change.

Among the most frequent Gr1 groups, Gr1.1 (agreement with reality) shows no marked correlation with age or education; the others are, on the other hand, decidedly correlated with low-education groups and, to a lesser degree, low-age groups. This means that they are much more frequent among respondents in the 13–15 and 16–19 age groups than among those in the 20–30 and 31–65 age groups—or that they are much more frequent among people with 0–10 years of school training than among people with more training.

About 15 percent of the people whose opinions on "truth" (and similar notions) were collected did not give any "definition." The thirty-three people who can, with relative ease, be classified and who belong to this group can be placed in two categories: (1) those consistently denying or doubting the existence of any adequate definition or of any common characteristic of what is true (six persons belong to this class); and (2) those who seem to try to find formulations of the type called definitions but who do not arrive at any (twenty-seven people). Most of them may perhaps be said not to "understand" the questions put forth by the examiner.

Respondents who deny or doubt the possibility of any definition do this for much the same reasons as those found in philosophic literature, as the following examples suggest.

Respondent 15 distinguishes between the existence of a common characteristic from an "objective" view and from other points of view. "They (statements I call true) have the common property that I accept them as true from my individual point of view. From an objective point of view, certainly none."

Respondent 32 rejects the possibility of a common characteristic but states that "one cannot at all say: something *is* true."

Respondent 214: "Every definition of truth must be more or less subtle. One can define mathematical truth. That is one thing. From the point of view of natural science another thing, and then come facts such as: I am sitting here. There are many kinds of true things. But to find a word that covers all things I think is quite impossible—and if a man so ingenious as to discover such a word should exist, I would look upon his effort as perfectly aimless."

Other respondents claimed that they had to "go around in circles" to define truth.

The questionnaire method is particularly open to influence by suggestion. During the examination, I sometimes had the impression that the person might have been led to believe in the existence of a common characteristic of what is true by the fact that the first question read, *What is the common characteristic of that which is true?* I therefore decided to use different versions of questionnaires, some of which included statements suggesting that there can be no common characteristics. Statistical analysis of the results shows that there is no evidence favoring the assumption that respondents are easily influenced to acknowledge or to deny the existence of a common characteristic.

If a philosopher defines true statements as “statements belonging to the class c ,” it is to be expected that if other statements (for example, *probably*-statements) also belong to class c , he declares the latter to have the same meaning as the former. If he does not, the definition is inadequate. It was found that the respondents defined “true” in much the same manner as certain other expressions, for example, “right.” The frequency distributions of definitions belonging to the different Gr1, Gr2, and Gr6 groups are closely related, the standard deviations from the average distributions being small. This, in turn, supports the view that their function (“use . . .”) is similar. In philosophic literature there has been a tendency to neglect all notions closely related to that of truth, and to write as if statements such as “it is true” should have a function clearly distinguishable from all other statements (for example, “it is sure,” “it is right,” “it is known,” “it is so”). Statistical analysis of the respondents’ answers makes it almost impossible to believe in a specific, observable difference of function in such cases. No specific trait that is held to belong to the truth notion (unrelatedness to time, etc.) seems to belong to it otherwise than by philosophic tradition. This being the case, I think it necessary for the development of our knowledge about S -notions and “opinions” to neglect methodologically theories that do not have any other support than such tradition.

Most questionnaires included questions such as the following: Do you distinguish between something true and something absolutely true? Is there anything absolutely true? Give some examples of absolutely true statements. The correlation between belief in “something absolutely true” and “something absolutely right” (and so on) was so high that such notions (“absolutes”) need not be distinguished in formulating the study’s main conclusions. These conclusions included, for example, the finding that belief in “absolutes” is much more frequent than disbelief. Only two people thought the question of the existence of absolutes was “meaningless.” The relation between frequency of belief, disbelief, and other standpoints is 70:20:10. Very few people changed their views with regard to the existence of absolutes during the examination. The suggestibility is small. There are close correlations between belief in absolutes and age/education—disbelief increases steadily with age and education. Even among people less than sixteen years old, there are, however, as many as 15 percent who are “sceptics.” How many there are in other

countries or how many there will be in ten years, I leave to others to estimate.

There is much evidence in support of the view that females have a greater tendency to believe in absolutes than do males. Lack of space makes it impossible here, as in connection with other statistically obtained results, to formulate our conclusions carefully. Exact statements with quantitative values are meaningless unless one can describe exactly how they have been arrived at.

Reading philosophic discussions on the notion of truth, one becomes accustomed to expect that advocates of this or that type of definition believe in absolute truth, whereas one expects that advocates of a different type of definition doubt or deny the existence of absolutes. Statistical investigations support the assumption that there are correlations between types of definitions and their authors' standpoints toward the existence of absolutes. It is apparent that one may, with a certain amount of probability, forecast that if a philosopher or a respondent adheres to a certain *Gr1* group (among the larger ones), he will favor a certain view of the existence of absolutes. In this, as in other connections, our prognoses are intended to be valid only in milieus with the same average properties as those of our philosophers and our respondents today.

The request for examples of something true (or of something absolutely true or of correct statements, etc.) brought into existence 1,000 "truths" that could be analyzed statistically. The types of examples varied slightly with the respondents' age and education as well as with their definitions. Individual differences were considerable: the "things" relevant to the true-false distinction were conceived in a fundamentally different way by different people. That the "truths" of one person would be considered "errors" by another was only to be expected. In spite of this, one may say that those giving apparently conflicting definitions of the notion of truth do not tend to choose conflicting types of examples.

What do respondents think of other respondents' answers? Will they, for example, think that the definitions of others "mean the same" as their own? Will they accept the notions of others or will they behave as philosophers? To address such questions, I confronted the respondents with definitions of other respondents and of philosophers, and with some of my own, the latter written down as *Einfälle*. More than 1,300 verdicts were analyzed.

On average, 77 percent of them were critical in cases of the definitions concerned being one put forward by another respondent. The standpoints toward the definitions of philosophers were on the whole slightly more favorable: 55 to 60 percent critical and 25 to 30 percent sympathetic. The seventy-two definitions written down as *Einfälle* were treated like those of the respondents. Very few (out of 470) definitions were tolerated by more than 75 percent of the people requested to consider them.

Having found the correlations between age, education, and standpoints toward the "truth-problem," I thought it worthwhile to try to find other correlations with such standpoints. During the examination of the respondents, one got the impression that their argumentation gave a good picture of at least some of their inclinations. It was quite another thing, however, to collect sufficient statistical material to support such impressions in a scientifically sound way. Because of certain practical difficulties, only one characteriological test—a test of "confidence" and "suggestibility"—was carried out. Schematically described, it consisted of the respondent's being invited to smell three test tubes containing different substances (*A*, *B*, *C*) with characteristic odors. He was then given fifteen other test tubes that were said to contain weak solutions of *A*, *B*, or *C* but that actually contained nothing but distilled water. For each tube, the respondent was asked: (1) Do you smell anything? and (2) How sure are you? If he said he did smell something, he was asked: (3) What do you smell? and (4) How sure are you? An index of suggestibility was worked out in the usual way. The degree of confidence was calculated thus: the respondent was asked to indicate how sure he was by using either his own words or a set of expressions written on a list such as the following: (1) perfectly sure; (3) not quite sure; (5) as likely to have been mistaken as not. A confidence scale was worked out on which 1 ("perfectly sure") was fixed as 100 confidence points (c.p.) and 5 as 0 c.p. The correlation between confidence (as defined in this test) and standpoint toward absolutes was marked: disbelievers in absolutes avoided the expressions commonly held to indicate "great confidence." The correlation between suggestibility and standpoint toward absolutes was less marked. Taking the general behavior of each respondent into account, one sees clearly that numerous complicated factors are operating and that one has to be extremely careful in interpreting the material.



The questionnaire method proved adequate for our purpose of creating truth theories "experimentally." It is apparent that all aspects of truth theories as they appear in philosophic literature can be reproduced. The debates of philosophers were copied by bringing some of the respondents together and letting them discuss their own answers. To compare truth theories put forth by amateurs with those of professionals, I worked with a "standard material" consisting of the truth theories of about 165 philosophers. This material I regard as a *fair sample* of truth theories. Most of the results of the comparison cannot be stated in a few words. Here I can only state some of the simple results in a rather crude and inexact way:

No type of definition found among the philosophers is lacking among the respondents—if one permits oneself to neglect 5 percent of the professional definitions that include exceedingly difficult words apparently untranslatable into the vocabulary of everyday speech (the definitions of Hans Driesch and others). No type of standpoint toward the possibility of defining the truth notion is lacking among the amateurs, nor do we find any type of standpoint lacking toward the existence of something absolutely true, toward verification, and toward the principle of the excluded middle. The philosophic *cs*-theories seem therefore to lack every empirical foundation. Only if one emphasizes minor differences and the bulky comments generally connected with statements of the conclusion can things be otherwise. It is easy to say that the respondents do not understand what they talk about, that they do not grasp the essence of philosophic questions. Observing their behavior in cases in which examination and discussion lasted several hours or extended over two years, I came to the conclusion that their opinions are deepened and consolidated whenever they get the *time* to work them out. In such cases, the main features of the first answers are generally retained. How do we, on the other hand, feel sure that philosophers know what they talk about? If respondents put forth opinions similar to philosophers; if two opinions, *A* and *B*, most often found together among philosophers are also found together among respondents; if arguments in philosophic literature in favor of *A* occur as arguments in favor of *A* in discussions among respondents; if, in short, the general behavior with bearing on truth theories is similar in both cases, then how can we place the professionals in an exceptional position?

Although many profound things are said in favor of truth theories, there are also many definitions containing references to exceedingly subtle distinctions never (perhaps) to be found among respondents. How, though, are these profundities treated by philosophers who do not adhere to their author's main views? They are brought down to very simple and prosaic things wholly within the reach of amateurs such as the respondents. It is worthwhile to study how the truth theory of one philosopher is described by other philosophers and to note how the truth theory is simplified and how discussion of it deals only with its coarsest and simplest features: the nucleus of the discussion. The statements that really invite the others to debate are simple and easily found among respondents between the ages of fourteen and seventeen.

Such considerations inevitably lead to the question, Does the philosophic discussion about truth develop as scientific discussions do; is there any progress owing to accumulated knowledge and experience? The question has to be answered with a no, I think. Already the discovery of all the basic types of formulations among respondents of ages fourteen to seventeen indicates that they undergo no further significant development: basic formulations are retained through all classes of age and education and ultimately made the center of philosophic discussions involving, for example, a definition of truth. The clumsiness of many of the respondents' expressions is replaced by the profound ear of philosophic style, and arguments are brought from more distinguished quarters, from contemporary scientific or ideological currents—but the concluding statements are the same.

How is it possible, one might object, that one definition is found more *reasonable* than any other if there is no development owing to insight? I think one factor is very strong: habit. Probably very few people who develop into philosophers and authors of truth theories are at the starting point acquainted with many truth theories. They get used to stating and arguing for a certain view. When they later on become acquainted with new theories, these are found less reasonable because they offend some already established habit of thought or expression. This process is clearly seen among respondents who are examined several times or who discuss their definitions with others. The following experiment was especially interesting: Three respondents were each confronted with three definitions of truth. None of them accepted the definitions, but in spite of this, each per-

son was instructed to *defend* one of the definitions against attacks by the other two. All three people were invited to attack the definitions of the others. They did this very unwillingly, professing that they did not understand the definitions and so on. In the discussion that followed, however, the arguments in favor of the first definition, "true is what serves life," were of the kind found in pragmatic literature; the arguments in favor of the second, "true is what is in agreement with reality," and the third, "true is what can be controlled by one's senses," were of the kind found in philosophic discussion of just these kinds of definitions. It was interesting to note that the respondents consciously or unconsciously tried to assimilate the definition they were forced (by pride, etc.) to defend, cleverly making the expressions of it in some way relevant to their own opinions, which they entertained with much fervor and tenacity. By this mechanism I think it is possible for anyone to defend a statement that he once, by chance or at least without acute reasoning, happened to adopt: it grows more and more "reasonable," more and more "obvious." It should be superfluous to admit that there are many exceptions to this law of development.

There are subjects under philosophic discussion that in many cases seem to flourish because of opinions that function like the opinions referred to above: opinions about the "ultimate nature of reality," "the possibility of living without illusions," "the objectivity of moral Truths," "the possibility of arriving at something that cannot be attacked by any sceptic," and so forth. They seem to determine, indirectly, basic views that in turn inspire the detailed opinions on the notion of truth. (See, for example, the discussions between F. C. S. Schiller and Bertrand Russell in *Journal of Philosophy, Psychology and Scientific Method*.)

It is not my intention to state that *all* published theories of truth are inspired by some vividly affective opinions concerned with subjects foreign to the "truth-problem." Just as occurs in religious systems with long traditions, however, there are always discussions going on about opinions, once a symbol of their advocates' deep affective tendencies, that later on are discussed simply because it is a good tradition to discuss them. The affective contents and symbolic character are no longer recognized.

The comparison between published truth theories and those of "amateur" respondents leads to results that cannot possibly stimulate the scientific in-

terest in new theories: the whole matter does not seem to be worthwhile. Such a conclusion is justifiable, I think, as long as one speaks about the basic formulations, the definitions of truth and similar notions, and not about the discussions found in papers on the truth notion, which are but loosely connected with the nucleus of the philosophic “truth-problem.” There are problems and disciplines of great scientific interest that only the force of tradition has linked with the philosophic “truth-problem”:

1. Problems regarding the development of hypotheses in science—why this or that theory was accepted, and so on; the function of scientific discussion, as revealed in this or that science in this or that period.
2. Problems involved in the study of how opinions of groups come into existence and how they die out; public opinions, ideologies, and so on.
3. Logistic problems related to expressions of opinions on opinions: formulation and axiomatization of expressions such as “prove” and “imply,” for example.
4. Practical proposals to standardize and sharpen the expressions of opinions on opinions when greater accuracy is thought desirable; proposals to avoid this or that expression or to use the expressions e_1 and e_2 as synonyms in certain discussions, etc. Such proposals can be justified without reference to the philosophic “truth-problem”: the later “problem” is reduced to questions belonging to (1), (2), (3), or (4) as soon as an attempt is made to state it clearly.

Logical Equivalence, Intentional Isomorphism, and Synonymy as Studied by Questionnaires

In Memory of Gerrit Mannoury

In recent discussions on synonymy among logicians and philosophers who use logical analysis as the main tool for inquiry, there has not been much reference to observational data and techniques. It is therefore not to be wondered that there is a considerable lack of clarity in the treatment of the relationship between conceptual constructions and empirical research by means of questionnaires. In the following, we shall discuss this relationship, keeping in close touch with the important contributions to the study of synonymy by Benson Mates.

Logical Equivalence and the Inconceivability of Difference as the Condition of Acceptance

Among logicians, it is common to think of synonymy as a narrower relation than logical equivalence: if two terms are synonymous, they are of necessity logically equivalent; but if two terms are logically equivalent, they may well be heteronymous. If this trend of usage and opinion is accepted, it will be a sign of the failure of a concept of synonymy if, according to that concept, all logically equivalent sentences are synonymous.

Benson Mates, in his article "Synonymy" (1950: 213), offers "some comments on other people's views" and describes certain concepts proposed in my *Interpretation and Preciseness* (1953). These concepts are called Qs1A-synonymy, Qs1B-synonymy, Qs2A-synonymy, and so on; Qs1 and Qs2

This article was reprinted with permission from *Synthese: An International Journal for Epistemology, Methodology, and Philosophy of Science* (Dordrecht, Netherlands: Kluwer Academic Publishers) 10 (1958, 1959): 471–79.

refer to the names of certain questionnaires, and the letters *A* and *B* refer to the rules regarding how the answers to the questionnaires are to be taken (for example, as confirmatory or disconfirmatory evidence for the presence of Qs1A-synonymity, Qs1B-synonymity, and so on).

Mates finds it likely that according to one of the concepts introduced by means of questionnaires and the rules of confirmation for the answers to them, "all logically equivalent sentences would be synonymous" (1950: 215). The concept that Mates may have in mind here is Qs5B-synonymity. It has been introduced approximately as follows:

Two sentences, *T* and *U*, are said to be Qs5A-synonymous in relation to a pair of texts *S*₁ and *S*₂ and for a person *P*, if and only if *P* answers negatively to the crucial question of a questionnaire of the kind Qs5 with *T* and *U* as parts of the texts *S*₁ and *S*₂.

The crucial question for Qs5 is, Can you imagine circumstances (conditions, situations) in or by which you would accept *T* and reject *U*, or vice versa?

Two sentences, *T* and *U*, are said to be Qs5B-synonymous in relation to a pair of texts *S*₁ and *S*₂ and for a person *P*, if and only if they are Qs5A-synonymous in relation to that pair of texts and that person, and if *P*'s answer is an answer to the crucial question of Qs5 as this question is interpreted by the framer of the questionnaire.

In order to subsume an answer to questionnaire Qs_x under those requirements establishing Qs_xB-synonymity, we must accept as tenable not only the hypothesis that the answer is meant to be negative, but also the supposition that the person tested interprets the question, *grosso modo*, as does the analyst.

The construction of Qs5 was inspired by philosophical writings and debates in which the inconceivability of a difference as the condition of acceptance seems to be taken as a criterion of synonymity, or of a very small distance of meaning.

In the following, we shall discuss some of the difficulties that emerge when the discussion of synonymity as conceived by the logician and philosopher Benson Mates is compared with the efforts to study synonymity, or more generally, meaning-distance, by means of observations

under standardized conditions. In the first part of this article, our attention will be focused on the question of how logical equivalence is related to synonymy when the questionnaire Qs5 is used in the meaning-distance study.

The empirical, soft-science methodology underlying the questionnaire approach does not require that one should attempt to find a definition (in the sense in which *definition* seems to be used in articles by Tarski and Mates). Tarski asked for and proposed an “adequate definition” of truth agreeing at least to a large extent with ordinary usage. Mates says that “there is no doubt that this notion, however vague it may be, is of considerable philosophical importance, and a good definition of it is greatly to be desired” (1950: 208). In a footnote, he adds: “As I use the terms, ‘to find a plausible definition of the term’, ‘to explicate the notion’ and ‘to define the notion’ denote the same process.”

It is our view that the range of phenomena more or less vaguely and ambiguously referred to by the term *synonymy* is so great that there is no reason to expect that a single, carefully introduced concept could somehow be made to cover *the* essential features of those phenomena. The studies by means of questionnaires, which Mates refers to, are inspired by the belief that there should be developed in relation to research techniques a large number of concepts of smallness of meaning-distance. Only after some empirical work has been accomplished with hypotheses framed by means of these concepts should the question be taken up of how one can reduce the number of concepts to a minimum. It seems that Mates, on the contrary, is mainly interested in discussing concepts that in an outstanding way might express the essential features of what competent people have so far classified as cases of synonymy. Among the features that Mates considers essential is the one that not all logically equivalent sentences are synonymous.

Mates seems to have asked the following question: is the concept of Qs5B-synonymy such that all pairs of logically equivalent sentences are ipso facto synonymous?

This formulation of the problem is misleading, for the following reason. The concept Qs5B-synonymy should not be viewed as a concept of synonymy in the narrow sense of an *adequate definiens* or *explicatum* of “synonymy,” but as a concept belonging to an open family of concepts of smallness of meaning-distance that is (at the present time) fruitful in em-

pirical studies of the heterogeneous phenomena vaguely and ambiguously referred to as synonymy.¹

Complex designations such as Qs5B-synonymy and questionnaire-synonymy, which contain as subordinate parts (meaning, as designation fragments) the term *synonymous* or *synonymy*, are to be considered as technicalifications of "synonymous" and "synonymy," and not as definitions as in the terminology of Tarski or Mates.

Therefore, if the concept of Qs5B-synonymy is accepted, and all logically equivalent sentences should turn out to be Qs5B-synonymous, this would not warrant our deducing that all logically equivalent sentences are synonymous.² The acceptance of Qs5B-synonymy does not imply the acceptance of it as an adequate definition or even the acceptance of the possibility or desirability of constructing adequate definitions.

Let us then proceed to the question "Is it not to be expected that all logically equivalent sentences as a matter of fact turn out to be Qs5B-synonymous?"

Sentences of the skeletal form "*T* is Qs5B-synonymous with *U*" might be taken as abbreviations for "*T* is Qs5B-synonymous with *U* for all persons, in relation to all texts." If the sentences are used within a discussion concerning a definite investigation that involves a class of persons and texts previously mentioned, "all" might be taken to refer to all members of this class. If not, it is much less obvious what "all" might refer to. The possibility that "all human beings" is meant may be discarded, because hardly any expressions would then ever fall under the concept. For the sake of illustration, let "all persons" stand for "all students at the University of Oslo" and "all texts" for "all English textbooks used by those students." Since Mates (1950) quotes Carnap, let "logical equivalence" be understood in the sense that Carnap in his *Introduction to Semantics* (1942) attributes to *L*-equivalence, that is, mutual *L*-implication.³ It is defined in relation to a set of rules, not to use occurrences of expressions.

Suppose, now, that two sentences *T* and *U* are logically equivalent in a language model *L*, which is supposed to cover the natural language of person *P*, belonging to the class of persons under consideration. By saying that *T* and *U* are logically equivalent (in the sense of Carnap), we do not imply that anybody knows or ever will know that they are logically equivalent. Nor is it implied that *T* and *U* have ever been used before appearing in the

texts selected in Qs5. No previous use occurrences may have been produced. Consequently, logical equivalence between T and U does not imply that they have ever been used in accordance with or in disagreement with any explicit or implicit semantical rule. If T and U have been used, they may have been used in any way whatsoever. Two logically equivalent sentences in L may, for example, happen always to have been used as antonyms.

If, now, P is confronted with a questionnaire Qs5, and if the logically equivalent sentences T and U are used as crucial sentences, it may or may not turn out that they are Qs5B-synonymous for him in relation to the pair of texts chosen. There is, in other words, no guarantee that logically equivalent sentences are Qs5B-synonymous. In spite of this, it may be methodologically justifiable tentatively to assert as a soft-science working hypothesis that all pairs of logically equivalent sentences are Qs5B-synonymous.

There may be high positive correlations between the two properties within important classes of sentences and of people, or there might be in the future a well-established hypothetico-deductive system covering these phenomena, from which a theorem implying the hypothesis could be deduced. Considering the absence of an established correlation, the above-mentioned hypothesis, if formulated as an assertion, would seem at least premature.

Let us then suppose that P believes that T and U are logically equivalent (in the sense of Carnap). It is to be expected that this highly increases the chances that they are Qs5B-synonymous for him—in general or at least in relation to certain wide classes of contexts. If they happen to be Qs5A-heteronymous, might we then say that P 's answer to Qs5 is a result of mistakes in logic or of misinterpretation⁴ of the questions? I do not think so.

Let the two sentences, T and U , be “ 2^{10} is less than 1,000” and “1,024 is less than 1,000.” Our hypothesis is that for at least 5 percent of those who believe firmly that T and U are logically equivalent, they are at the same time Qs5B-heteronymous. The author of this article belongs to this 5 percent. In the way that I and many others have been taught arithmetic, it is necessary to do some calculations to establish that $2^{10} > 1,000$, but not to establish that $1,024 > 1,000$. I believe that I am able to conceive of mistakes having been made in any calculation. Therefore, I believe that I am able to conceive the possibility that 2^{10} is less than 1,000. This I am able to do in

spite of my conviction that 2^{10} is greater than 1,000. " 2^{10} is less than 1,000" and " $1,024$ is less than 1,000" are consequently Qs5B-heteronymous for me, because I can conceive of the possibility of a text showing that 2^{10} is less than 1,000. If this text precedes a use occurrence of " 2^{10} is less than 1,000," I would accept it but still reject " $1,024$ is less than 1,000."

For persons for whom the above exemplifications of T and U are Qs5B-synonymous, "Philip believes that $2^{10} < 1,000$ " and "Philip believes that $1,024 < 1,000$ " are very likely to be Qs5B-heteronymous. Thus, the complication discussed by Mates does not arise in the way he describes, since the conceivability of a difference in cognitive acceptability is taken as a criterion in questionnaires of the kind Qs5. This does rule out that Qs5B-synonymity is not too wide a concept for certain purposes. The usefulness of the concept of Qs5B-synonymity is apparent only as part of a conceptual structure in which similar, but not identical, concepts serve similar, but not identical, purposes.

If "logical equivalence" is not taken as referring to rules but to a kind of relation between sentences in use, the relation between logical equivalence and Qs5B-synonymity might well be very intimate. In no case, however, does it seem convenient to use only those concepts of logical equivalence such that logically equivalent sentences could not possibly be Qs5B-heteronymous.

Intentional Isomorphism

One of the main trends in the use of the expression "expresses the same assertion as" is such that explications in the direction of intentional isomorphism seem more adequate than those in the direction of logical equivalence.

An important question is how one could best study empirically this trend of usage, and construct concepts in line with it. The well-founded rejection by Carnap, Mates, and others of a general identification of synonymity with logical equivalence or with identity of the conditions of confirmation—in those senses of these terms that they have in mind—seems in part to be the result of the view that the term *synonymity* ought to be used in such a way that intentionally heteromorphic expressions cannot be synonymous. It seems that they believe or assume that such a proposal, if fol-

lowed, would lead to a usage in substantial agreement with usage in general or in the texts written by linguists, logicians, and philosophers.

In the material gathered by questionnaires there are a number of answers symptomatic of that trend. Many expressions can be viewed as complexes consisting of simple or atomic expressions. If subjects are confronted with texts in which both the complex and the atomic expressions occur, they show a strong tendency to judge the complex to be questionnaire-heteronymous with the atomic, regardless of all other relations between the expressions.

This tendency has been studied by means of the questionnaires Qs1–Qs5. It has been found, for example, that “in the year 1920” is sometimes judged to be questionnaire-heteronymous with “in the year A.D. 1920” even in texts in which only happenings in the twentieth century are discussed. Even in a context with explicit, obvious references to Oslo, “at the University” is sometimes judged to be heteronymous with “at the University of Oslo.”

The arguments offered in these and similar cases are mainly of the following kind: the expression xyz is heteronymous with the expression xy because z has a meaning and it occurs in xyz but not in xy . This argument is used in spite of the circumstance that the subject interpreted the text in which xy occurred in no way different from that in which xyz occurred.

On the other hand, there are rather marked tendencies in usage (including that of linguists) of such a kind that requirements of sameness of intentional structure (including the case of intentional isomorphism) are far too strong. The widespread tendency to answer affirmatively to questions as if “is true,” “is the case,” and “is perfectly certain” were synonymous, is symptomatic of less rigorous requirements.⁵ I cannot see why future research should be better served by making a monopoly of the use of the term *synonymy* in such a way that one trend of usage, the one roughly in the direction of sameness of intentional structure, is taken as the best or most convenient. Moreover, whatever the direction in which the term is made more explicit, any concept of synonymy should be constructed with careful reference to research techniques that have already been tested in studies of natural languages.

The term *isomorphical N-synonymy* is proposed as a concept that, so to speak, lies between the concepts adapted to formalized languages with sys-

tems of explicit rules and the concepts concerned with the delimitation of kinds of usages:

Let a and b be two sentences, and let the analysis of them down to the smallest meaningful parts (according to a given system of classification) be such that they can be written:

$$1^a \cdot 2^a \cdot \dots \cdot m^a$$

and

$$1^b \cdot 2^b \cdot \dots \cdot n^b$$

1. "The sentences a and b are 'isomorphically N-synonymous'" shall mean the same as $m=n$, and there is a set of k rules, $R_1 \dots R_i \dots R_k$, by means of which it is stated that for all i , i_a shall mean the same as i_b within the field of application M , and there is no rule stating anything logically inconsistent with this set of rules.

Let us suppose that each of the rules $R_1 \dots R_k$ as well as a and b are used at least once and that no violation of the rules has occurred. If the rules are followed, i_a means the same as i_b in use; but what does that mean? In order to obtain a concept of isomorphical N-synonymity that allows subsumption and that is related to procedures already existing, a modification of (1) shall be proposed:

Let " i_a shall mean the same as i_b " be changed to " i_a shall be used in such a way that i_a and i_b are Qs1-synonymous for the users." Let (1), thus modified, be referred to as (2).

Now, the existence of explicit, semantical rules for the vernacular that hold without exceptions is doubtful, and, in any case, such rules are rare.⁶ A concept that made no reference to rules might be more useful.

3. "The sentences a and b are isomorphically Qs1-synonymous for the person P in the class of situations S " shall mean the same as "the pairs of the smallest corresponding parts of a and b that P considers meaningful are for P in S Qs1-synonymous, and so are a and b ."

S can be interpreted narrowly as a class of verbal contexts or more widely as a class of situations in which a or b or parts of them occur.

By means of this concept of isomorphical Qs1-synonymy, we may now, returning to our previous discussion, say that there is a certain percentage of people for whom no pair of sentences are Qs1A-synonymous⁷ that are not also isomorphically Qs1A-synonymous. Or, tentatively, the stronger assertion may be made that for a certain percentage of people two sentences are Qs1A-synonymous if and only if they are isomorphically Qs1A-synonymous.

The goal of formulating criteria by means of which “ 2^{10} is less than 1,000” is distinguished from “1,024 is less than 1,000” can be attained by a questionnaire; let us call it Qs22. It may roughly be said to be concerned with the operations that are performed in order to verify the truth of a statement. To the extent that the smallest meaningful parts of two statements have differences corresponding to differences in operation, one may expect that Qs22, or questionnaires of a similar kind, can bring the differences to light. Qs22 contains three questions:

1. How would you go about showing or proving that T is true?
2. How would you go about showing or proving that U is true?
3. Is there any part—including the smallest details—of the first procedure that would have to be different from the second?

If the respondent points out a difference, T and U will be said to be Qs22-heteronymous. If the answer is negative, it will be taken as a confirmation that T and U are Qs22-synonymous.

In the case of “ $2^{10} < 1,000$ ” and “ $1,024 < 1,000$,” most people would, I tentatively assert, answer (3) affirmatively—saying, for example, that the behavior involved with “ $2^{10} < 1000$ ” includes multiplying $2 \times 2 \times 2 \dots$, or consulting a table of powers, whereas the second procedure would not include this.

In general, any application of different semantical rules would result in Qs22-heteronymy.

It is hoped that this article throws some light on the relationship between conceptual constructions and empirical research in general, and questionnaire procedures in particular. It cannot be overemphasized that

EMPIRICAL SEMANTICS AND 'TRUTH'

conceptual construction must have some basis in empirical observation and that more research is needed to develop further the relationships between technical concepts such as that of intentional isomorphism or interchangeability *salva veritate* and the empirical phenomena for which they are formulated in the last analysis.

The Empirical Semantics of Key Terms, Phrases, and Sentences: Empirical Semantics Applied to Nonprofessional Language

Characterization of Empirical Semantics Through Contrasts

In what follows I will not discuss every sort of empirical semantics, but a kind or trend that has been given the proper name Empirical Semantics and has mainly flourished in Scandinavia. Its characteristics are most easily grasped by contrasting it with other trends.

For example, consider the increase of status of particulars since the start (about 1962) of the international ecological movement. We now find (1) study of the *particular* habits of *particular* insects; (2) study of the effects of putting 100 new chemicals into the environment through the study of the astronomical number of particular effects resulting from the combined action and interaction of 2, 3, 4, . . . 100 of those chemicals.

In contrast to the logical empiricism of the mid-1930s, Empirical Semantics stresses the requirement of testability of every direct and implied hypothesis about the actual use of terms, phrases, or sentences. For example, Alfred Tarski's work on truth included assertions about the agreement of his truth definition or construction with the ordinary or common use of the term. The testability of those assertions was low, however, and there was no agreed-upon methodology for testing them. The assessment of credibility was left to a kind of intuition believed to be more or less infallible among persons speaking the language. Logical empiricists, except Otto

This article was reprinted with permission from *Philosophy and Grammar. Papers on the Occasion of the Quincentennial of Uppsala University*, edited by Stig Kanger and Sven Öhman (Dordrecht, Netherlands: D. Reidel/Kluwer Academic Publishers, 1981), 135–54.

Neurath, accepted Tarski's assertions about the use of *true* and *truth*, and of many other terms, without questioning them. In this they were of course not alone, but it contrasted with their high-level requirement of testability and derivability in the natural sciences, primarily in physics. Their methodology had a kind of blind spot in the matter of actual use of terms. Empirical Semantics stepped in and offered to clarify the limits of the adequacy of the Tarski definition, using testable methods.

Karl Popper, and later Paul Feyerabend and others trained by Popper, was here in agreement with logical empiricists, although he tended to avoid semantical hypotheses. Popper certainly relied upon them indirectly, for example, in assertions about induction. If this term is not used in ways that represent only a subclass of the usages of the term, the thesis that good scientists never apply induction falls to the ground. The same holds for what he says about metaphysics.

In the late 1930s, logical empiricists cooperated with Charles W. Morris and introduced the triad syntactical, semantical, and pragmatic questions in dealing with language. In pragmatics the approach was called empirical, but it lacked a research methodology. Empirical assertion of grave importance in syntactical and semantical work was still left unsupported and relied upon an implicit appeal to intuition. Such appeals are of course unavoidable in more than 99 percent of our discussions, but are of little weight when we face disagreements about usage that affect the arguments for or against a thesis of interest.

Belief in intuition corroborated by highly sophisticated arguments also characterized the Ordinary Language movement. John L. Austin, Norman Malcolm, and Herman Tønnessen argued about the grammatical principle "no modification without aberration," concentrating on phrases like "I yawned voluntarily (or deliberately)," which Austin held to be "impossible" under certain circumstances. Tønnessen maintained a "principle of tolerance" based on empirical semantical investigations. Tønnessen contended that the intuitions of Austin concerning adverbs were deductions from old-fashioned grammar. He confirmed his own views through comparison with yawning students, of which he found a great number in university reading rooms. When Feyerabend states (1976: 381) that for "years Imre Lakatos and I were alone in our attempt to inject a little life, some personal note into philosophical debate," he forgets Tønnessen.

The highly intelligent and sophisticated assertions of Strawson about the performative function of sentences like “It is true” can be tested only in concrete life situations. It is my contention that if we as researchers in such situations asked ordinary people about the purpose or meaning or job of such a sentence, they would in much less clever, but clearer, phrases outline different performative and nonperformative functions. Lacking doctrinal prejudices, they would avoid many pitfalls.

This example brings me to a second main tendency within Empirical Semantics: the relatively high regard for hypotheses put forth by nonprofessional philosophers concerning language.

An investigation of the use of the term *true* and related terms such as *fact* and *probable* turned in the 1930s to the question of how nonprofessional philosophers would themselves conceive the meaning and function of these words.

Philosophers have ready-made answers to both the use and the conception of the use among people outside their clan. I quote some phrases they use:

“The opinion of the man in the street on the truth-notion is . . .”

“[T]o naive people truth means . . .”

“The usual criterion of error is . . .”

“Wenn man einen Bauer fragen wollte, warum er glaube, dass . . .”

“Die sinnliche Wahrheit ist die Wahrheit des Kindes.”

“Das Volk, als solches, oder der grosse Haufen, ist an seinen Vorstellungen an die Wahrheit der Sinne gebunden.”

“Der Character des Volkes und seiner Wahrheit ist Realismus.”

“[T]he definition of the truth and falsity of beliefs is not quite as simple as common sense and McTaggart suppose.”

“If common sense had been asked to formulate what is meant by the truth of a belief, this is probably what it would have written . . .”

“Dies liegt in dem blossen Sinn der Worte wahr und falsch.”

“‘Wahr’ (in der üblichen Bedeutung) ist . . .”

“Die Wahrheit ist, wie es scheint, von allen Menschen als etwas Festes, als etwas Unveränderliches und Ewiges, angesehen.”

The quotations indicate a grave underestimation of nonphilosophers, especially in regard to the diversity of "embryonic" philosophical theories among nonprofessionals.

Asked (roughly) what is common to all that is true, people who have never read any philosophical papers or conversed with philosophers answer with formulations that have been put into more than thirty classes. Class 8 we might call the Tarski class. What is true is identified with what is the case, what is so, or its function is conceived as a mere repetition of an assertion. The most frequent kind of formulation, class 10, identifies what is true with what is shown or what is proved. It might be called the verification class.

Logicians trespassing in empirical semantics have objected to the truth-verification notions, saying that "not true" is clearly not synonymous with "not verified." Nonphilosophers defend their notion by maintaining synonymy hypotheses like the following:

- (1) " p is true" syn " p is verified"
- " p is not true" syn " p is falsified"
- (2) "it is not true that p is true" syn "it is falsified that p is verified"

From (1) and (2) it does not follow that

- (3) "true" syn "verified"
- "not true" syn "not verified"

I shall not try to defend every nonphilosopher's view but only suggest that such views are closely similar to a variety of professional views. The consistency of the nonphilosophers' views and terminologies tends to be underrated.

Philosophers mostly think that "agreement with reality" is the commonsense conception. Formulations that include references to reality, real things, and similar ideas are put in class 1 in the above-mentioned systems; such formulations represent the fifth most frequent way of answering the question.

The nonprofessionals' formulations describing criteria or giving defini-

tions of “what is true” may, of course, be classified in many ways. Above I have referred to a class 1. In the same classification, formulations are put into:

Group 4: if truth is identified (in various senses) with a relation of correspondence with facts or actual things.

Group 7: if truth is identified with facts or real things.

Group 8: if truth is identified with what is the case, what is so, what is as one says; or when a function of mere affirmation is described. Compare the answers of person *B* to the utterance of *A*: *A*—It is raining, *B*—(1) Yes, it is raining, (2) It is raining, (3) That is so, (4) Yes (the “Tarski group”).

Group 9: if what is true is identified with something fixed and determined by man himself (“Truth as Convention”).

Group 11: if what is true is identified with what cannot be challenged, disproved, contradicted, or discussed or with what is indisputable.

Group 12: if what is true is identified with what is unchangeable or what cannot be otherwise. Central notion: changelessness (the “Parmenides group”).

Group 13: if what is true is identified with the relation of agreement or correspondence between something and *observation*.

Group 14: if what is true is identified with something unmistakable, with something that *cannot be mistaken* (the “Incorrigibility group”).

Group 15: if what is true is identified with that which cannot be *doubted* or with what is not actually doubted by anyone (the “Cartesian group”).

Sometimes the formulations are put forth with a low degree of definiteness of intention, but occasionally further conversation reveals astonishing consistency.

Empirical investigations suggest that *a large variety of philosophical outlooks* are alive among nonprofessionals in a potential, implicit, or “embryonic” form. One-sided education in colleges and universities perhaps reduces this diversity and works toward gray uniformity or excessive reliance upon the experts of the day.

Let me add some words to the characterization of Empirical Semantics through contrasts.

Empirical Semantics is heavily influenced by Bronislaw Malinowski and the linguists who since the late nineteenth century have fought the "intellectualist" conception of language as expression of thought. In the supplement to Ogden and Richards's provocative work *The Meaning of Meaning*, Malinowski pointed to basic functions of language in situations of fishing, hunting, and other relations studied by social anthropology—and now, also by modern etiology. Malinowski's conception and methodology contrasted markedly with the model of language as a calculus or as a set of rules for true/false assessments, and with the early Wittgenstein. In Vienna, Karl Bühler was active in propagating a much broader and more empirical-minded view of language. When the later Wittgenstein proposed a more empirical and etiological view, this was greeted in circles of Empirical Semantics with sincere appreciation, but it did not seem to convey more or clearer information than the old social anthropology of language. The tumultuous applause accorded to Wittgenstein's nonintellectual view of language seems to have had as a necessary condition the insularity of Anglo-American philosophical centers in matters of social science.

In the 1940s social science was able to sweep into European and Anglo-American universities on a grand scale. A highly critical, if not contemptuous, attitude toward the newcomer prevailed in philosophical environments, however. Logical empiricists tended to talk about social scientists, including psychologists, as hardworking, not-too-sharp fellows who did not really know what they were doing. With some patience this could, however, be shown them through logical analysis of the sentences they produced.

At the very bottom of the social science methodological status ladder we find the questionnaire, perhaps best known among philosophers from semicommercial undertakings and Gallup surveys.

From the very beginning, questionnaires have been extensively used in Empirical Semantics. Their usefulness or even unavoidableness is rather obvious if uses of a sentence among a large group of users are to be tested in an interpersonally satisfactory way.

For example, in a small room with a globe near the subject, he or she will very often use the sentence "The Earth is round" if asked to give an example of something true. The example is convenient for introducing questions about the certainty that the Earth is round, possibilities of errors,

questions of preciseness when compared to formulations in terms of a mathematical sphere and of more complex forms. In more or less “open interviews,” a “common characteristic of truth” question could then be introduced under standardized conditions. Nonstandardized conditions involve too many variables.

Rules or Habits

The kind of research programs that in the 1940s got the label Empirical Semantics (ES) must be understood as in part a strong reaction against uncritical applications of the conception of a language as a system of rules. De Saussure’s distinction between *parole* and *langue* (speech and language) is fruitful to a point but can be overdone. ES also reacted against the position that many of the classical problems of philosophy could be clarified—or even solved—by transforming them from ontological and epistemological questions to questions of language and of choice of sets of rules.

The limited force of rules may be understood from the fact that no set of rules, however comprehensive and however precise, can unambiguously determine relevant behavior patterns of an action. This holds, for example, for an action of the kind called “testing the hypothesis *H* through method *M*.” What is indicated through rules is primarily traits of behavior that *seem to be in need of being indicated*, given certain habits or mores of the community *at the time of* making the rule and in its social and physical context. Whether we do research or fish with the help of big nets, and try to describe our doings, there always *remain* relevant undescribed traits. The “outsider,” if sufficiently distant culturally, cannot use the description, whatever the quality of the translation.

Main Fields of Research in Empirical Semantics

The ES investigations have centered upon a fairly small number of topics:

1. *Occurrence analysis*. Description of function or connotations of certain key terms based on analysis of large numbers of occurrences of the terms in definite texts. There are several sorts of occurrence analysis.

2. *Metaoccurrence Analysis*. (a) Synchronic description of definitions and other metaoccurrences and their relation to occurrences. Among other data, 500 definitions of *truth* by nonprofessional and scores of definitions by professional philosophers were analyzed. (b) Metaoccurrence analysis as part of historical research. For example, metaoccurrences of *democracy* from the French to the Russian revolutions.
3. *Agreement and disagreement analysis*. For example, assessment of the scope and function of pseudoagreement and pseudodisagreement in scientific argumentations and ideological disputes.
4. *Definiteness of intention analysis*. The definiteness of intended meaning is always limited, or, in other terms, the net of discriminations relative to things (not constructs, like π) has a limited finiteness. There are ways to discover the limits, assess their function, and, if desirable for certain purposes, increase the definiteness or depth of intention.
5. *Synonymity*, or more generally, the equivalence and analyticity analysis. Elaboration of tests of criteria of close similarity of meaning or, more generally, of function. Estimation of degree of analyticity in communication. Whereas there may be doubt about certain analyticity concepts, the fruitfulness of the empirical kind has already been confirmed.
6. Contributions to theory of communication and to the development of educational instruments favoring more effective cognitive communication. These contributions furnish the conceptual framework of the above-mentioned researches.

Closely connected with ES are the efforts to elicit "embryonic" philosophies of truth and related topics among nonphilosophers, and of logical calculi like propositional calculi, and of probability. As a curiosity it may be mentioned that the frequencies of unlikely series—for example, getting six heads when tossing a coin six times—are markedly underrated if we permit ourselves to accept the internationally established statistics as correct. Such statistics have been extensively verified, but established propositional calculus should *not* be taken as an absolute. Here I disagree with Piaget, who in his experiments and interpretations takes established logic and physics at face value.

Synonymy, Operations, and Operationism

Pseudoagreement Analysis

The synonymy research within ES places a heavy stress on operational definitions, as part of the requirements of interpersonal testability, but emphatically rejects operationism (à la Bridgman or in modern forms). The rejection is a clear consequence of the semantics of preciseness and the rejection of “correct meaning.” With “intelligence” as a T_0 , one may expect an indefinite multiplicity of plausible synonymic alternatives of differing orders of preciseness. To choose one and act as if it were the only one is a form of linguistic corruption. Furthermore, fruitful operational definitions are mostly transintentional, or they are technifications rather than precizations. The designation *definition* is misleading.

The positive attitude toward interpersonal, explicitly described operations and the negative attitude toward operationism are part of a general attitude within epistemology or semantics: that of unending, expanding research rather than of science. At no point are there decisive conclusions. Research programs are closed for practical, not cognitive, reasons.

For example, agreement and disagreement are never free of a possible mixture of pseudoagreement and pseudodisagreement. The research on, say, agreement on definitions or precizations of the term *democracy* is in ES steered in such a way that no tests are taken to be conclusive. There are only instances of confirmations and disconfirmations, the weight of which cannot be exactly assessed.

The conceptual framework of ES is simple in the essentials:

Basic predicate:

(1) Syn (xyz, tuv)

“ x is synonymous for y in situation z with t for u in v .”

x is said to be a synonymic alternative (more loosely: “interpretation”) of t , and t of x .

Situations are in (1) considered to be singular, dated situations.

Three special cases of (1):

(2) $(y)(u) \text{ Syn } (xyz, tuv)$

"for all persons is x situation z synonymous with t in situation v ."

(3) $(z)(v) \text{ Syn } (xyz, tuv)$

"in all situations is x for y synonymous with t for u ."

(4) $\text{Syn } (xyz, tuv)$

" x for y in z is synonymous with t for y in v ."

Synonymity is not defined, but a variety of operational definitions or technifications are introduced, such as substitutability of x with t .

On the basis of synonymity, a number of other concepts are introduced: precisization, definition, pseudoagreement and pseudodisagreement, analyticity, biased interpretation, popularization, . . .

Precisization is contrasted with specification and elaboration.

Experiment on Definiteness of Intention

One may struggle to find suitable words for a thought or feeling, but one may also struggle to find out what was meant by an utterance. The utterance may have had the form of an assertion, or it may belong to an accepted hypothesis within a science, but this does not solve the problem of what a particular person in a particular situation intended to express by the assertive sentence, or what it conveyed to listeners.

To investigate the latter, empirical semanticists performed certain experiments. I shall give one example: The experimenter announced a lecture to an association of students of physics, and about 250 gathered in an auditorium. After talking for about twenty minutes, the lecturer said "The Earth is surrounded by a gravitational field" in a rather natural context and without particular stress. This was a signal to a mob of assistants to invade the gathering with copies of a questionnaire, which were handed to the students. The basic questions read, "How do you interpret the utterance 'The Earth is surrounded by a gravitational field'?" "Do any of the following sentences convey to you what the utterance conveyed to you?"

Two classes of answers are of particular interest, the “I do not know” answers and the “no discrimination” answers. They reveal the limits of the definiteness of interpretation among hearers.

Are Alfred Tarski's Empirical Hypotheses Testable?

The clash of opinions on language was clearly evident behind the scenes at the Third Congress for Unified Science in the Salle Descartes at the Sorbonne. What was Tarski really trying to do in his masterly dissertation on truth? Generally, it was thus conceived:

The task which Tarski sets for himself is that of finding a materially adequate and formally correct definition of truth. The requirement of material adequacy is *simply* the requirement that the definition, once achieved, shall correspond more or less closely with that concept of truth which all of us have in mind before we ever undertake the task of explication.

(Linsky 1952: 3; my italics)

Tarski's important theory on truth, rescuing the objective or absolute concept of truth from relativism and subjectivism, was at the congress to be defended and duly hailed by Karl Popper.

I had a discussion note in which I maintained the following theses (here given in abbreviated form):

1. Tarski's theory contains empirical hypotheses, namely, statements about ordinary language (*die Umgangssprache*).
2. The statements are vague and ambiguous and not directly testable by research.
3. Testability implies operationalization: the finding and communication of procedures that can corroborate the modified hypotheses.
4. Preliminary tests by simple social science techniques involving questionnaires and occurrence analysis suggest that the adequacy of the Tarski analysis is very limited.
5. The extremely high level of preciseness and logical rigor in the formal development in Tarski's work contrasts dramatically with the sloppiness of the statements about ordinary language.
6. Any movement using the epithet *empirical* as a positive key term

should instigate empirical research in case this is necessary to confirm or disconfirm basic theories.

7. The term *true* is central in various fields of philosophy, and the suppression of certain directions of precization (that is, a subgroup of concepts) impairs or stultifies our minds. The claim that one concept is adequate favors dogmatism.

In meetings before the opening of the session, Carnap contended that the empirical material and the inferences drawn from it would cause confusion, not clarification. Neurath's objections should suffice, and as they were well discussed beforehand, the plenum discussion would be fruitful and orderly. I agreed, having the feeling that nobody would think it even meaningful to do empirical *research* on ordinary language.

According to Tarski and those following him, the *Umgangssprache* permits unlimited (*unbeschränkt*) use of the concept of truth. Propositions that negate themselves are permitted.

Such a hypothesis is empirical and we must ask, How is it testable? By what procedures? How is the metaphor of "permittance" eliminated? How are the rules of the *Umgangssprache* found?

The weight of the criticism of Tarski's hypothesis is not that it is false, but that it is not made operational and therefore not tested.

A kind of test was made in 1936 and the result was negative.¹ It made use of open questionnaires related to the antinomy of the liar. The persons speaking the *Umgangssprache* did not interpret any sentences in such a way that they negated themselves. The existence of a *rule* of the *Umgangssprache* that permits it was not in evidence, nor a *rule* that prohibits it. Rules may be *invented* that approximately picture the complex regularities of ordinary usage. In that case, there will be no rule of unlimited use of *true*.

Analytic/Synthetic

A kind of analytic/synthetic distinction is introduced in ES, but not as an absolute distinction. The point of view of ES toward the debate on analytic/synthetic is best formulated in Tore Nordenstam's eminently clear dissertation, *Empiricism and the Analytic-Synthetic Distinction* (1972).

Ludvig Løvestad (1945a,b), using ES procedures, concluded in 1945

that the analytic/synthetic distinction plays little or no role in natural science, and explained why. His work is little known, however.

The procedure requires (1) splitting sentences into parts, and (2) introducing rules in relation to which sentences may be analytic or fall into a broader category of “analytoform.” A sentence is analytoform if, for at least one plausible interpretation (synonymic alternative), it is analytic.

A hypothesis that a sentence is analytic is confirmed only if it can be shown that it occurs within the context in which the rule is intended to be valid and only in relation to that rule. There may be a number of other rules (as in the case, for example, of the chemistry of acids) intended to cover the same or part of the same context. The same sentence may be nonanalytic in relation to all rules except one. In most cases, the task of interpretation of the rule formulation will not furnish any simple, definite conclusion because of ambiguity and vagueness.

So much about the role of rules.

Translations

Under what condition would the sentence U be a *perfect translation* of the sentence T ? The hunt for an eternally perfect translation for all people in all situations is rather pointless. As a point of departure we should, according to ES, take particular acts of communication and ask for synonymy:

$$(1) \text{Syn}(Up_1s_1; Tp_2s_2)$$

when, for example, s_1 is not a singular dated situation but a *kind* of situation—let us say, when the speakers are using an implement for fishing (à la Malinowski). The persons p_1 and p_2 may be considered to cooperate, in spite of having different mother tongues. Suppose after a time they use T or U as completely interchangeable in communication with each other *during fishing*. In other situations they may make a distinction. We may introduce various tests or operational criteria of the interchangeability. On the basis of (1) the presence of two different mother tongues (U and not T belonging to one, and T and not U belonging to the other) and (2) the presence of certain kinds of synonymy operationally introduced through interpersonal tests, we may define U as a *perfect translation* for p_1 and p_2 in s_1 and vice versa.

Generalizing, we may talk of the total class of persons p_1 speaking a certain language L_1 and the total class of persons p_2 speaking L_2 . The chances of finding a perfect translation in this case, even if the kind of situation s_1 is very narrow, is, of course, very small. For most purposes translations very far from being perfect may do the job.

At this point, measures of definiteness of intention are relevant. In general, one may say that the chance of a perfect translation is: (1) inversely proportional to the degree of definiteness of intention required; (2) proportional to the narrowness of class of persons; (3) proportional to the narrowness of class of situations; and (4) inversely proportional to the distance between the two languages.

If we do not envisage a practical situation like fishing, but the translatability of an abstract text, for example, a text on democracy, occurrence analysis and metaoccurrence analysis of a number of terms are required. The uses of the Russian term usually translated into Norwegian by the word *demokrati* are obviously influenced by events in Soviet Russia since 1917. The history of Norway has been quite different. Occurrence analysis today would reveal complicated differences. On the metalevel there are also differences. They may *in part* be roughly indicated by saying that economic relations between the citizens are in the Russian terminology highly relevant in estimating the degree to which a regime is democratic, whereas in Norwegian metaoccurrences, references are mostly to elections and the structure of government in general.

In any case, meaning hypotheses in the form of assertions that term A in language L_1 has the meaning B in language L_2 can be confirmed (or disconfirmed) only to a certain degree. There will never be a single hypothesis that can cover the total class of occurrences within an interval of time. This is a situation commonly found in any empirical field of study. Moreover, there will of course be very different kinds of hypotheses in relation to the great variety of precizations of the word *meaning*. In ES that term is avoided through use of the synonymity terminology. The above introduction of a term *translation* indicated how the elimination is done in a particular case.

The above implies a thesis of "indeterminacy of translation." There are, for example, indefinitely many rules (according to occurrence analysis) that in principle cover any set of occurrences of a term or sentence. Indefinitely

many translations will all fit the occurrences. (From this, however, do not follow certain negative theorems recently formulated by D. Føllesdal.)

One persistent trait of ES is not only the equiminded acceptance of diversity of interpretations and hypotheses, but even the stress on listing diversities. The attitude is closely connected with attitudes in plant geography, social anthropology, local history, and other “soft” natural and humanist fields of research. It is very different from dominant attitudes in formal logic, mathematical physics, and other “tougher” fields. One may say that the extremely positive attitude toward diversity is in line with theorem 24 of part V of Spinoza’s *Ethics*. “The more we understand particular things the more we understand God.”

“Showing” Contradictions

This year—the tricentennial anniversary of Spinoza’s death—a great number of experts on his work will be publishing and lecturing. Very few of them seem to believe in the fruitfulness of semantical studies. To me, however, the fruitfulness of ES occurrence analysis, and especially of equivalence analysis, seems beyond doubt in Spinoza research.

There are today still a number of experts on Spinoza who think they can *show* that Spinoza’s *Ethics* contains contradictions in the sense of inconsistencies. In a recent lecture before an audience of several hundred “friends of Spinoza,” Leszek Kolakowski (1973) announced a number of contradictions, some of which he even contended he could *prove*. According to the methodology of occurrence analysis, it is impossible to *prove* such inconsistencies. Empirical working hypotheses cannot be proved. The methodological situation in this matter is no different from that in historical geology or in cosmology.

If we analyze the occurrences and metaoccurrences of basic terms of the *Ethics*—*liber* (free), *determinata* (determined), *potentia* (power), *virtus* (virtue), and others—a variety of interpretations are open. This holds even if we add information from other texts of Spinoza, and from authors with, in part, similar terminology (for example, Descartes). I shall later concentrate on one source of differences of interpretation, the expressions of equivalence.

If we have a pair of sentences T_0 and U_0 that by superficial reading seem inconsistent, we might take this as a sufficient condition of inconsis-

tency: that for all pairs of plausible precizations beyond a certain level of preciseness, the pairs are instances of logical inconsistency. The judgment of plausibility is, however, highly speculative. There is no room for proofs in a rigorous or even a sloppy sense; there is only room for working hypotheses of limited testability. I say *working* hypotheses, because the assessment of plausibility of interpretation depends on other sentences of the text that contain terms intimately connected with the terms found in T_0 and U_0 . Thus, research must proceed from a rather narrow set of terms or sentences to a very wide one. The sentences of the *Ethics* hang together—that we all agree on.

The diversity of interpretations that fit the given class of occurrences of certain terms or sentences is best conceived if we think of them as interpretative rules. Using the broad theorem of Mach-Duhem-Poincaré in general methodology, we may say that there are indefinitely many different rules of grammar and dictionary consistent with a given set of occurrences of a term or sentence. Let me mention a central term of Spinoza's *Ethics*: *liber*, free.

There is a famous absolutistic metaoccurrence of *res libera* (free thing) in part I of the *Ethics*. A "free thing" is by definition synonymous with "a thing that exists solely out of the necessity of its own nature, and is determined to act solely out of itself."

Every plausible interpretation of Spinoza's text at this point requires that we exclude human beings from the class of free things. Only one so-called thing is free, God, substance, or Nature. Nevertheless, Spinoza talks sometimes of the free human being, *homo liber*. If we accept the hypothesis that *liber* here is used in the same way as announced in his definition, we may infer not only that there is no *homo liber* but that the expression as it occurs in the *Ethics* involves a contradiction on the same shameless level as the famous "square circle."

This conclusion leads to difficulties, however. According to the note on theorem 54 in part IV, to live according to reason is to be free (*ex ductu rationis vivant, hoc est, ut liberi sint*). The free human being seems to be, in part IV, a being not determined to act solely out of itself, but to a high degree out of itself or from its own nature, or self-caused. Thus, Spinoza does not here exclude the possibility of free human beings.

It cannot of course be proved, but a rather good hypothesis is the one

that postulates an absolutistic and a nonabsolutistic use of *free* in Spinoza's texts. In other words, the term *free* is used in at least two senses. The absolutistic metaformulation might then be interpreted as synonymous with the more precise sentence "I am going to say (*dicetur*) that that thing is *absolutely* free, which exists *solely* out of the necessity of its own nature. . . ."

The talk about free human beings in the later parts of the *Ethics* will then naturally be interpreted in a nonabsolute sense of 'free'. This approach is quite successful, I think. It results in elimination of the threatening inconsistency when the metaoccurrence in part I is taken to cover all occurrences of *free*. Every alleged inconsistency proclaimed by Kolakowski (1973) and by a number of other distinguished scholars can be eliminated in the same way. (This is strictly a working hypothesis.)

Every sentence announcing what *will be* said, using *futurum simplex*, implies, if the definiteness of intention is taken to be fairly high, an announcement of the range of intended validity. The *Ethics* consisted originally only of the first part, and the absolutistic use is confined to that. Consequently, we consider the intended range of validity to be limited to part I.

Some experts think that Spinoza's *system* requires the absolute sense, but there is no way of getting to one single system as being that of Spinoza. What we can do is introduce reconstructions, more or less freely. Personally, I am for reconstructions that permit me to talk about human beings being able to obtain higher levels of freedom, that is, being able to *increase* their level of freedom. This means that I prefer reconstructions such that the term *free* is not used exclusively in an absolute sense.

In any case, neither the so-called determinism nor any other doctrine of the *Ethics* can be *shown* to contain inconsistencies. The methodology of occurrence analysis rules it out. A different methodology might be adopted, and in relation to that inconsistencies might be shown or even proved. No such methodology has been formulated by Spinoza experts, however.

Of more interest are attempts to interpret the *Ethics* in such a way that it becomes consistent from the point of view of formal logic. Professor J. Friedman has, in a not-yet-published dissertation, concluded that the proofs of part I of the *Ethics* obtain a consistent and valid form if 164 premises are added. This seems a somewhat large number, but all except about twenty are of a very innocent kind. The work is of interest for all who would wish to learn from Spinoza in a positive way.

Expressions of Extensional Equivalence

Nearness of cognitive meaning or function has always been a favorite theme of Empirical Semantics. A number of expressions in the *Ethics* suggest at least a kind of extensional or referential identity or near identity, in short, extensional equivalence with certain other expressions. Some pairs may be intensionally equivalent, but considering the nominalistic inclination of Spinoza, and also the difficulty of testing hypotheses of intension, I shall limit myself to extension.

Here are some of the expressions that consist of more than one word:

by <i>x</i> I understand <i>y</i>	<i>per . . . intelligo . . .</i>
by <i>x</i> we understand <i>y</i>	<i>per . . . intelligimus . . .</i>
to understand the same by <i>x</i> and <i>y</i>	<i>per . . . et . . . idem intelligere</i>
<i>x</i> does not mean anything else than <i>y</i>	<i>. . . nihil aliud significat quam</i>
<i>x</i> and <i>y</i> are one and the same	<i>. . . unum et idem sunt</i>
<i>x</i> is nothing else than <i>y</i>	<i>. . . nihil praeter . . . est</i>
<i>x</i> or (which is the same) <i>y</i>	<i>. . . vel (quod idem est) . . .</i>

Some of the others, consisting of only one or two words, are very common. The most common one is "*x* or *y*," *x sive y* (for example, "God or Nature," *Deus sive Natura*). Other very common ones are "*x* or *y*" (*x seu y*) and "*x*, that is, *y*" (*x, hoc est, y*).

In all, there are about 250 occurrences of expressions of extensional equivalence (see figure 1). Their exact interpretation is in most or all cases open to different views. The resulting differences in interpretation of the system of Spinoza are substantial, especially since most of the fundamental terms of the system occur in equivalences.

For example, the terms *power* and *virtue* are connected with several strong terms of equivalence. There is also an equivalence between *virtue* and *love of God*. It is said in the proof of theorem 42 in part V that love of God (*amor erga Deum*) is virtue itself (*ipsa virtus est*). Now, if in the *Ethics* we put the term *virtue* wherever we find *power*, we get a text that sounds very Christian and very tender-minded in the sense of William James. If, on the other hand, we substitute *power* everywhere for *virtue*, we get a text sounding of Machiavelli or Thomas Hobbes, and very tough-minded in the sense of William James.

Spinoza is said to be a *Gottbetrunkenener Mensch*. This characterization

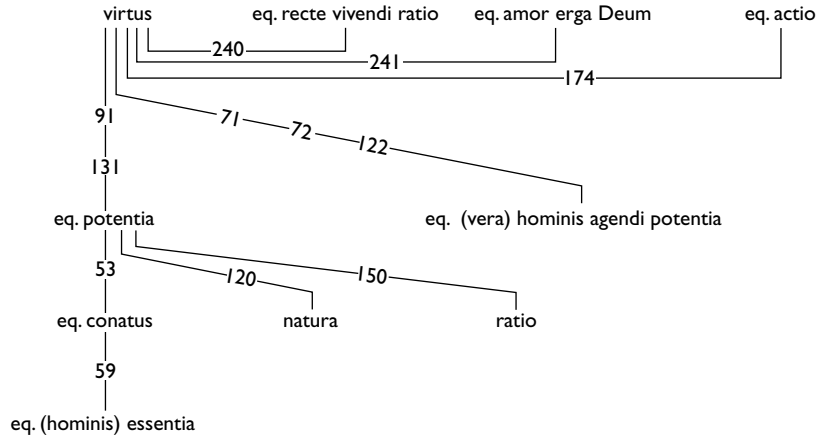


Figure 1. Strings of equivalence: an example. *Number references:* 53—Part III, Prop. 7z, Demonstratio; 59—Part III, Prop. 9, Scholium; 71—Part III, Prop. 55, Scholium; 72—Part III, Prop. 55, Cor. 2, Dem.; 91—Part IV, Def. 8; 120—Part IV, Prop. 33, Dem.; 122—Part IV, Prop. 52, Dem.; 150—Part IV, App. 3; 174—Part 5, Prop. 4, Scholium; 240—Part V, Prop. 41, Dem.; 241—Part V, Prop. 42, Dem. (Numbers refer to lists of equivalences in Naess 1976.)

would be still more to the point if, where he writes *virtue*, we placed *love of God* instead. Since we have two famous equivalences of God and Nature (*Deus sive Natura*), however, we could make a second choice and write Nature wherever he has *God*. He then suddenly changes from *ein Gottbetrunkenener* to *ein Naturbetrunkenener*, a kind of nature mystic.²

The semantical point to be made is that reconstructions must introduce a term or a complex expression that fits both *potentia* and *virtus*. Clearly, neither the term *power* nor the term *virtue* can do the job. Or one might define completely new terms, for example, *potus* or *virtia*, analogous to Eddington's invitation to use *waveicle* as a term in physics for an entity that has specific properties of both waves and particles.

The important lesson is that the equivalences found in the *Ethics* rule out some interpretations of the basic terms as very implausible, but they leave room for a number of very different others.

Basing our concept of interpretation upon the kind of concepts of synonymy starting on page 67, we may confidently predict that there will not be any convergence of interpretations of Spinoza's text with increased

EMPIRICAL SEMANTICS AND 'TRUTH'

research. It is perhaps more realistic to put forth general interpretations of his system, or parts of it, as *reconstructions*. Sender/receiver preciseness depends upon using terms understandable today. This implies "translating" Spinoza in a way that makes manifest the many more or less doubtful auxiliary hypotheses necessary to fabricate the translation.

Empirical Semantics, and especially occurrence analysis of meta- and use occurrence, may be of some use in the clarification and validation of such hypotheses.

Typology of Questionnaires Adapted to the Study of Expressions with Closely Related Meanings

If carried out with an eager and open mind, painstaking empirical research leads us into vast uncharted regions of facts and relations. The more we penetrate the depths of such regions, the more we are fascinated. We are—often against our will—drawn farther and farther into the study of details and intricate structures revealed by the data found or collected. Bystanders are often astonished by this: what has gradually broadened into a whole world, is, seen from outside, only a secondary and special field or at least a field of no importance for any great problems—and the outsider is right; it is only rarely that a piece of empirical research obtains a great weight in solving or clarifying central problems.

Much that is being done, especially in the methodologically less advanced areas of science, is not very interesting or attractive except to a few people working in exactly the same areas. This holds good of some studies carried out by Socratic interviews or by (standardized) questionnaires intended to reveal more and more about the relations between words of closely related (cognitive) meaning. It is my contention, however, that in spite of the, in many ways appalling, crudity of the questionnaire techniques and in spite of the manifest inability of many subjects to enter into difficult linguistic or other fields, the data gathered are often apt to reveal or suggest as much to the researcher as do penetrating meditations or introspections based on data found in one's own head or gathered in an informal way. Primarily, though, it is the very richness of the materials, the surprising differ-

This article was reprinted with permission from *Logic and Language: Studies Dedicated to Professor Rudolf Carnap on the Occasion of His Seventieth Birthday*, edited by B. H. Kazemier and D. I. Vuysje (Dordrecht, Netherlands: Kluwer Academic Publishers, Synthese Library, 1962), 206–19.

ences among "ordinary people" (nonphilosophers and nonlinguists) in how they conceive terms, phrases, texts, and functions of language—together with uniformities at places one could not have foretold—that spur one to renewed efforts.

In this article, I shall try to give a condensed survey of most kinds of questionnaires used in my studies of synonymy and of some kinds used by other authors (Revie, L. Lövestad, H. Tønnessen). The list forming the main part of this article will, I hope, facilitate the work of other researchers who wish to contribute to empirical semantics. There is much confusion about how questionnaires can be used and an underestimation of the variety of approaches or techniques.

In particular, there are three old misconceptions to be fought: (1) If one wishes to know how a person uses a term, the questionnaire method consists in asking the person directly how he uses it. (2) If the formulations of the questionnaire are misinterpreted, there is nothing one can do with it to find out how and why. (3) When a researcher asks a subject a set of questions, this set is identical with the questions the researcher asks himself in his research program.

Questionnaire is in this paper taken in a wide sense: a set of formulations of questions in a definite order that are intended to be placed before an identified group of people under conditions—verbal and nonverbal—that are to some extent known or tested or standardized. It is a research instrument that is adapted to the need of asking more than one person the same questions one or more times under various conditions.

If controversial questions are asked, this does not imply that the researcher believes he can get the correct answer by using questionnaires containing just those questions. Very often, the researcher is interested primarily in questions that are not put into the questionnaire. Thus, only a minority of my questionnaires pose direct questions to the subjects such as "Do *T* and *U* express the same meaning to you in this context?" and if direct questions are asked, the answers are not taken at face value. The material obtained may furnish evidence in an indirect way; it may strengthen or weaken an argument that is relevant (but scarcely decisive) for the questionnaire. Last, but not least, there is nothing in the technique of questionnaires that precludes including competent people as subjects. Professionals and experts do, however, tend to refuse to answer isolated questions and in-

sist upon reformulating, modifying, and expanding the formulations of the questionnaire in a way that makes *comparison* with other respondents difficult. This is not an obstacle of major importance, but it certainly makes it unwise to use professionals as subjects except when they are valuable for the specific aim that has led the researcher to frame the questionnaire.

The following classificatory system suggested itself as the number of synonymy questionnaires that I developed in the course of research increased and it began to be difficult to survey their similarities and differences. It is reasonable to expect that other classifications will become more convenient or theoretically more important at later stages of research.

In studying closeness in meaning by means of questionnaires, it has been one of my aims to develop at least one kind of questionnaire corresponding to each kind of well-known philological and philosophical criterion or definition of (cognitive) synonymy. One might have expected that this aim would result in questionnaires with “crucial” questions reminiscent of the formulations used in those criteria or definitions. The indirect character of most (good) questionnaires and the nonoperational character of the criteria or definitions make the relation between professional definitions rather intricate, however.

An example will illustrate this. Carnap introduces a concept *intentional isomorphism* that may be said to express a kind of strong relation of sameness of meaning. Why is there no questionnaire directly corresponding to it, that is, a standardized set of questions including, and only including, what must be answered in order to identify a case of logical isomorphism? First, the concept of intentional isomorphism is constructed in relation to sets of semantical *rules*, not *use*. Like the concepts of *L*-implication and *L*-equivalence, it has no meaning except for formal languages. Now, questionnaires are instruments for finding out how people *use* certain expressions, not for ascertaining the formation and transformation rules of calculi (which possibly have never been used by anybody). Second, if the concept of logical isomorphism is somewhat changed so as to be relevant for investigations of use, there will not be one characteristic questionnaire corresponding to it, but a characteristic *set* of ordinary questionnaires: if two complex expressions $x_1y_1z_1$ and $x_2y_2z_2$ can be analyzed each into three components, x_1, y_1, z_1 and x_2, y_2, z_2 , the concept of logical isomorphy can be said to require synonymy not only of the pairs $x_1y_1z_1$ and $x_2y_2z_2$ but also of the three pairs of minimum expres-

sions x_1x_2 , y_1y_2 , and z_1z_2 .¹ This means that we may use questionnaires of any of the families surveyed below, but in characteristic quadruplets.

Terminology

Individual copies of questionnaires have the same status semantically as individual occurrences of sentences. There may be a vast number of copies of them. We shall think of questionnaires as written. It is important, however, to remember that when used orally, they give rise to acoustic processes, each one with its peculiarities.

Each questionnaire (Q) has a name; those used in studying synonymy (s), in a vague and broad sense of closeness in meaning, have the name Qs and two numbers, as in Qs4 No. 3. Qs4 is to be considered an abbreviation for Qss4, the second s for "statement." Questionnaires of the class Qss study likeness of meaning between statements. Closely corresponding questionnaires concerning synonymy of designation (terms) get the name Qsd4, and so forth. Similarly, the *i* in Qsi4 and the *q* in Qsq4 stand for "imperative sentence" and "question sentence," respectively.

To avoid unnecessary complications, questionnaires identical with Qs4 except for minute or peripheral modifications of wording have been called Qs4 questionnaires.

Each synonymy questionnaire concerns a pair of sentences or designations, the so-called crucial expressions the synonymy of which is to be investigated—for example, "true" and "perfectly certain." The second number in the questionnaire name changes with changing expressions to be investigated or with changing order of expressions: Qsd1 No. 11 investigates the use of "true"—"perfectly certain"; Qsd1 No. 12 investigates "perfectly certain"—"true"; Qsd1 No. 13, "the case"—"perfectly certain"; Qsd1 No. 14, "the case"—"true," and so on.

Just as in the case of sentences, their meaning and the attitude toward them change with the context; therefore, the order in which the questions are posed may affect the answer.

The name Qsd1 is (1) a class designation denoting all questionnaires that are generated by inserting definite designations into two open places in a sentence sequence. The sentence sequence is the same for each of the questionnaires; the open places are those of the crucial expressions. Qsd1 is also (2) a name for the skeletal sentence systems (sentence schemes) we get

by taking away the crucial expressions from the particular questionnaires Qsd1 No. 1, Qsd1 No. 2, etc. If nothing else is explicitly stated, Qsd2 is intended as a class designation. Broader classes are designated by such symbols as Qsxy—the class of all kinds of synonymy questionnaires, including those concerning question sentences.

Next in importance after the classification of synonymy questionnaires into those concerned with declarative sentences, imperative sentences, question sentences, and designations, we have found the classification according to the terms used in, and the meaning intended by, the questions of the questionnaire. This gives the *fundamentum divisionis* of the following classification. Five families of questionnaires are distinguished.

The first family includes all questionnaires in which the subject is asked, roughly speaking, whether two given expressions mean the same or express the same. The crucial questions include what we call *synonymy expressions*: “express the same assertion,” “mean the same,” and so on. Nearly all questionnaires of this family have asked whether a pair of expressions mean the same *for the respondent* when they occur *in a definite context* given in the questionnaire. More general questions are, of course, possible within the range of variation of the questionnaire family.

Using the terms of the questionnaires, one may say, roughly speaking, that to be taken as confirmations of synonymy in some sense, the answers must *state* that certain statements express the same or mean the same. In the classification, this requirement is named a *synonymy requirement*.

Characteristic of the first family is the close relation between crucial question and synonymy requirement. A subject is asked, for example, whether two sentences *T* and *U* express the same, and the answer yes is the only requirement for classing *T* and *U* as synonymous (for example, Qs-family-1-synonymous) for the subject relative to the contexts.² The “level of directness” of the questionnaires is maximal. They are used primarily to observe how answers undergo variation with variations of subjects and—often more important—with change of contexts.

The second family and the rest of the questionnaire families avoid “mean the same” and related expressions. They are with few exceptions more complicated and judged more difficult by the respondents. Roughly speaking, a first group of questionnaires of family 2 invites the respondent to try to conceive of variations in conditions affecting the truth-value of sentences.

The concepts of synonymy intended to be studied by these question-

naires are related to the truth-value concepts proposed by Carnap and others. The synonymy requirement is inconceivability of a difference in acceptance. A second group avoids the appeal to the imagination and thus *decreases the task character of the questionnaires*. Roughly speaking, various conditions are indicated in the questionnaire, and the respondent is invited to answer whether under those conditions the crucial sentences would be true. A third group is a plain true-false questionnaire, by which the respondent is invited to judge each sentence of a series containing the crucial expressions as to its truth-value. The synonymy requirement is that each pair of sentences, the members of which differ only in crucial expressions, has the same truth-value.

It should not be necessary to go into detail in characterizing the families 3, 4, and 5. Rough characterizations are given below.

Family 1

Use of synonymy expressions such as "synonym," "mean the same," "express the same (proposition, assertion)."

Synonymy requirement: sameness of meaning.

Associated philosophical concepts: interchangeability *salva significatione*, synonymy in intention.

Level of directness: maximum. If N. N. *says* that *T* and *U* mean the same for him, *T* and *U* mean the same for him.

Genus 1

Synonymy expression: "express the same assertion."

Synonymy requirement: expressiveness of same assertion.

Mode of presentation: invitation to imagine interchange of expressions.

Prototype: QSI (Naess 1953: 360 [SWAN I]).³

Species 1

Synonymy question related to a definite occurrence in a definite text and to a definite event of interpretation by the respondent.

Prototype: QSI (ibid.).

Species 2

Synonymity question more general than in the case of Qs1. Generalization in respect of occurrences, texts, events of interpretation.

Prototype: Qs2 (ibid., p. 364).

Species 3

Like species 2, but furnished with an introduction requiring a definite criterion of sameness of cognitive meaning to be used by the subject. (The criterion is, roughly, sameness of conceived conditions of truth.)

Prototype: Qs30 (Naess 1954a: 37).

Genus 2

Synonymity expression: “mean the same.”

Synonymity requirement: sameness of meaning.

Mode of presentation: invitation to imagine interchange of expressions.

Prototype: Qs3 (Naess 1953: 366 [SWAN I]).

Species 1

Synonymity question related to a definite occurrence in a definite text and to a definite event of interpretation by the subject.

Species 2

Same synonymity expression as for species 1, but question of a more general nature.

Prototype: Qs3 (ibid.).

Genus 3

Synonymity expression: “synonym.”

Synonymity requirement: synonymity.

Mode of presentation: subjects asked to list synonyms of a given word.

Such a questionnaire has not been used by the author, but it appears in a mimeographed doctoral thesis by Revie (University of California). It is not classed as a synonymity questionnaire “proper,” because then the phrasing of many theorems on likeness of meaning would be more complicated.

EMPIRICAL SEMANTICS AND ‘TRUTH’

Species 1

No reference to texts or persons; straightforward invitation to list synonyms.

Prototype: see dissertation by Revie.

Family 2

Synonymity requirement: nonexistence or inconceivability of a difference (of some kind) under a variety of imagined or stated conditions.

Associated philosophical concept: inconceivability of logical inequivalence.

Genus 1

Synonymity expression: “same conditions of acceptance (and rejection) of some kind.”

Synonymity requirement: inconceivability of difference in conditions of acceptance.

Mode of presentation: invitation to conceive of different conditions of acceptance.

Prototype: Qs10.

Species 1

Synonymity expression: “same conditions of acceptance”; no specification of kind of acceptance.

Synonymity questions related to a definite occurrence in a definite text.⁴

Prototype: Qs5 (Naess 1953: 368 [SWAN I]).

Species 2

Synonymity expression: same as for species 1.

Synonymity question of a more general character: texts not given, authors said to be different.

Prototype: Qs10.

Species 3

Synonymity expression: “same conditions of acceptance *as true* (versus rejection as false).”

Synonymity requirement: inconceivability of difference in conditions of acceptance *as true*.

Synonymity question related to definite occurrence in a definite text.

Prototype: Qs11.

Genus 2

Synonymity expression: no synonymity expression.

Synonymity requirement: interchangeability *salva veritate*.

Mode of presentation: invitation to answer whether certain statements are true or false. The whole questionnaire is formulated in the object-language.

Prototype: Qs29.

Family 3

Synonymity expressions: no synonymity expression, or “(same) necessary or sufficient conditions,” etc.

Synonymity requirement of (two) statements: if the first, then the second, and vice versa. Synonymity requirement of designations: if subsumability under the first, then under the second, and vice versa.

Associated philosophical concept: logical equivalence.

Genus 1

Synonymity expression: “(same) necessary, sufficient (condition) of.”

Synonymity requirement: truth (or tenability, etc.) of *a* being a necessary and sufficient condition of truth of *b*.

Mode of presentation: texts with *a* presented; subjects invited to answer pairs of questions: do you consider it a necessary (sufficient) criterion of the truth of *a* that *b*₁ is true?

Prototype: Qs4 (Naess 1953: 369 [SWAN I]).

Species 1

Synonymity expression: “necessary and sufficient criterion (condition) of the truth of.”

EMPIRICAL SEMANTICS AND ‘TRUTH’

Synonymity requirement: truth of *a* necessary and sufficient criterion of truth of *b*.

Prototype: Qs₄ (ibid.).

Species 2

Synonymity expression: same as for species 1.

Synonymity requirement: same as for species 1 plus “truth” of *b* necessary and sufficient condition of truth of *a*.

Prototype: Qs₂₀.

Species 3

Like species 1, but modified in such a way that answers are *use occurrences* (for example, a yes answer to “Do you accept that if N. N. loves his neighbor as himself, he is a good man?” rather than “Do you accept the statement ‘If N. N. . . .’”).

Mode of presentation: invitation to answer questions about the relation between the crucial expressions and each member of a list of statements $V_1, V_2, \dots V_3, \dots$. The questions have the form “Do you consider it a necessary (or: sufficient) condition of the truth of *T* (or: *U*) that V_1 is true?”

Prototype: Qs₂₅.

Genus 2

Synonymity expression: “if V_1 then (not-) *T* and if V_1 then (not-) *U*,” etc.

Synonymity requirement: for all *i* and *j*: if V_1 then *T* and if V_1 then *U*, if V_j then not *T* and if V_j then not *U*.

Prototype: Qs₆ (Naess 1953: 369 [SWAN I]).

Family 4

Argumentational synonymity. Closely related to family 3 but marks the transition from formal logic to logic of argumentation (*pro et contra dicere*).

Genus 1

Synonymity expression: none.

Synonymity requirement: (1) sameness of pro-arguments and sameness of contra-arguments; 2) same strength of pros and cons.

Mode of presentation: invitation to imagine arguments that would count as pro (or con, or be neutral) in relation to T (or U) but not in relation to U (for T).

Prototype: Qs8 (ibid., p. 374).

Genus 2

Synonymity expression: none.

Synonymity requirement: same as for genus 1.

Mode of presentation: list of statements offered as possible arguments.

Subjects invited to answer questions concerning the relation of the statements to T and U .

Family 5

Synonymity expression: none.

Synonymity requirement: sameness of extension, sameness of subsumption, sameness of class membership.

Associated philosophical concepts: synonymity concepts for extensional languages.

Genus 1

List of expressions offered.

Crucial question: "is this an example of . . . ?"

Synonymity requirement: sameness of example subsumptions.

Prototype: Qs18.

Genus 2

No initial list of expressions offered. Subjects invited to give examples.

Examples offered by subject A presented to B and those by B to A , etc.

Prototype: Qs19.

Family M

Metaquestionnaires

The aim of metaquestionnaires is to test the questionnaires already presented to a subject by studying how the subject interpreted the crucial question (etc.) of the questionnaire. (Metaquestionnaires thus defined need not be synonymy questionnaires.)

Genus 1

Mode of presentation: a subject is asked whether he would have given a different answer to a (definite) questionnaire if the crucial question had not been what it was, but one of the questions on a list presented to the subject.

Do these so-called synonymy questionnaires *really* measure or somehow indicate synonymy? The answer must be negative, because there is no such thing as synonymy as such. In philological and philosophical literature the term has been defined in various ways, and many (mostly inapplicable) formulas have been put forth as criteria of synonymy. When we reformulate the criteria in such ways that they can be applied to concrete instances of use of certain sentences or other units of speech, the answers to the questionnaires are seen to be *relevant* as material. There is, on the other hand, no criterion applicable to concrete cases of verbal communication that deserves the name of *the* criterion of synonymy in use.

In various publications Rudolf Carnap has pointed out that the analysis of synonymy in natural languages by questionnaire procedures and by other techniques outlined in my *Interpretation and Preciseness* (SWAN I) supports his "intensionalist thesis."⁵ This thesis "says that the assignment of an intension is an empirical hypothesis which, like any other hypothesis in linguistics, can be tested by observations of language behavior. On the other hand, the extensionalist thesis asserts that the assignment of an intension, on the basis of the previously determined extension, is not a question of fact but merely a matter of choice. The thesis holds that the linguist is free to choose any of those properties which fit to the given extension; he may be guided in his choice by a consideration of simplicity, but there is no question of right or wrong" (Carnap 1956: 62).

Arguing for his intensionalist thesis, Carnap (ibid., p. 63) invites the reader to suppose

that one linguist, after an investigation of Karl's speaking behavior, writes into his dictionary the following:

(1) *Pferd*, horse,

while another linguist writes:

(2) *Pferd*, horse or unicorn.

Since there are no unicorns, the two intensions ascribed to the word *Pferd* by the two linguists, although different, have the same extension. If the extensionalist thesis were right, there would be no way for empirically deciding between (1) and (2). Since the extension is the same, no response by Karl, affirmative or negative, with respect to any actual thing can make a difference between (1) and (2). But what else is there to investigate for the linguist beyond Karl's responses concerning the application of the predicate to all the cases that can be found? The answer is, he must take into account not only the actual cases, but also possible cases. The most direct way of doing this would be for the linguist to use, in the German questions directed to Karl, modal expressions corresponding to "possible case" or the like.

The texts and reference lists used in many questionnaires have just this function, to elicit verbal reactions toward objects or relations that the subjects may not have reacted to before and possibly never will react to except verbally.

The main weakness of the extensionalist thesis as formulated (and rejected) by Carnap seems to me to be an implicit assumption that empirical studies of *extensions* could end in a definite hypothesis H_0 about sameness of extension of two expressions T and U of such a kind that there would be no group of hypotheses H_1, H_2, \dots covering equally well the materials of the observational journals. However, if hypothetico-deductive methodology is applied to observations of concrete instances of use of T and use of U , there will always be a wide range of choice in formulating hypotheses of a general character.⁶

In order to adapt semantical concepts of extension and intension to pragmatics (in the sense of Carnap and others), detailed analysis of concrete empirical procedures is highly desirable. In terms of operations, concepts of

intension are not necessarily vaguer or more speculative than those of extension. The objection raised against intensional concepts may indeed be effectively met as suggested by Carnap (1956: 60): "If for a given semantical concept there is already a familiar, though somewhat vague, corresponding pragmatical concept and if we are able to clarify the latter by describing an operational procedure for its application, then this may indeed be a simpler way for refuting the objections and furnish a practical justification at once for both concepts."

“You Assert This?” An Empirical Study of Weight Expressions

Introduction

“Man is descended from some lowly organised form.” This is one of Charles Darwin’s conclusions in his *Descent of Man* (1882: 788). The sentence is interesting from many points of view. He uses the vague term *lowly organised form*. For his moderate defenders it was possible to use broad interpretations; antagonists tended to narrow it down, and won over the media: Darwin was understood simply to say that we descended from apes. From the point of view of this article, the terms *show*, *attempt to show*, and *certainly* are interesting. “Show” may be plausibly interpreted as implying verification (of a hypothesis). Darwin uses a large diversity of weight expressions, some of them complex: “the fashions of savages are far more permanent than ours; and whenever their bodies are artificially modified, this is *necessarily the case*” (ibid., p. 583).

It is plausible that the term *necessarily* here is used in a wider sense than in contemporary philosophy of science, but exactly what did Darwin here *claim*?

His complex (“higher order”) weight expressions pose questions that need painstaking research. A second example: “[i]t is . . . *impossible*, as we have *seen*, to *maintain* that this *belief* [in God] is innate or instinctive in man” (ibid., p. 612; my italics for weight expressions). “Impossible to maintain” is clearly not meant or entirely meant to be a sociological or psychological hypothesis, nor one of formal logic presumably, but a kind of hypothesis of composite character—like so many other weight expressions.

This article was reprinted with permission from *Empirical Logic and Public Debate: Essays in Honour of Else M. Barth*, edited by Erik C. W. Krabbe, René José Dalitz, and Pier A. Smit (Amsterdam and New York: Rodopi, 1933), 121–32, 35.

Against research projects with the aim of investigating complex weight expressions in Darwin’s writings, one may object that he never had reason to mean anything very definite when he used such expressions, and that whatever he may have meant, it was nothing original: he just followed the customs of his research community. Even if his *definiteness of intention* was rather limited, there are sets of transintentional interpretations of contemporary interest, and even those within his reach are of interest when studying how assertions function in research. Just one more example from Darwin: “[i]t *cannot be supposed*, for instance, that male birds of paradise or peacocks should take such pains in erecting, spreading, and vibrating their beautiful plumes before the females for no purpose” (ibid., p. 616). Implied are, I think, some strong assumptions of purposefulness that, if accepted, make it more or less logically inconsistent with those assumptions to suppose the birds in question do not have a purpose for behaving as they do.

The pragmatic aspect is often clear, for example in Frederic B. Loomis’s classical *Evolution of the Horse* (1926: 105): “between any two variants [of *Mesobippus bairdi*] there are so many transitional forms that it has *proved most convenient to regard* them all as one species.” Feelings, but not mere feelings, are highly relevant: “[a]s none of the known species of *Parahippus* *can be considered* the immediate progenitor of . . . , we *feel* that the change took place on the plains in northern America” (ibid., pp. 124–25).

High-level textbooks of theoretical mechanics and similar fields contain a smaller diversity of weight expressions, but some are complex and important. “Dabei ist allerdings *die idealisierende Annahme* eingeführt, dass . . .” (Müller and Prange 1923: 62). The “idealizing” assumption introduced is the fundamental one of solids being adequately dealt with as mere material points, “points of mass.” How does this assumption affect the weight of other assertions in the book?

If hard-pressed, scientists tend to introduce successively more complicated weight expressions.

Do We Know Much About the Use of Weight Expressions in Science?

Consider the following start of a communication between *A* and *B*:

A: The nucleus is the controlling center of cellular activity.

B: You *assert* this?

A: Yes.

B: So, you could also formulate it this way: "it is true that the nucleus is. . . ."

A: I could not for at least three reasons: First, I would not start with "it is true that" without something being contested or for other special reasons. Second, the assertion is in principle only a scientific hypothesis. To say it is true is to use too strong a word. Third, the formulation admits many different interpretations, a family of closely related assertions. Some members of the family I would class as fairly uncertain or even slightly erroneous. Other members I would say are beyond doubt correct. I would, if pressed, even say they are true. The situation is, in short, rather complicated.

The trend of *A*'s answers is toward greater complexity of assertions. His second answer consists of eight sentences, if we interpret "sentences" not in a grammatical sense, but as strings of words limited by full stops. Suppose the communication continued. *A*'s fifth answer might well consist of 100 sentences, all part of an adequate answer to *B*'s question "You *assert* this?"

The above communication shows that *B* is interested in what weight, in at least one sense of "weight," *A* attaches to his utterance about the nucleus. It turns out that *A* is clearly conscious of his own usage of certain terms, what I shall call his "weight expressions."

Using an old epistemological distinction, "knowledge by acquaintance" versus "knowledge by description," we may admit that *A* manifests more than usual knowledge by, or *as*, description, not just knowledge by, or *as*, acquaintance. *A* is able to articulate insights about his own use of expressions.

The investigation of weight expressions has the aim to increase our knowledge by description. We are well acquainted with the vocabulary of our mother tongue, but our knowledge on the level of science may be next to nil.

The short interaction between *A* and *B* exemplifies a variety of weight expressions. "It is true that . . ." is not a very common expression. In the context of the first four steps of the above communication, the expression "I *assert* so and so" may or even must be interpreted as a weight expression, depending on our definition. The same holds for ". . . only a scientific hypothesis." Without the "only" we get a somewhat heavier or stronger weight expression: "scientific hypothesis." Furthermore, the communication exemplifies instances of "fairly uncertain," "slightly erroneous," "beyond doubt correct," and the less strong "I would say are beyond doubt correct." The last expression, "I would, if pressed, *say* they are true," like the foregoing, belongs to the many complicated utterances expressing complex attitudes toward the status of assertions.

Comparing the use of "It is probable (that such and such)" with "I found (that such and such)," people are more sure that they know what they themselves mean when they use the latter expression, or at least they are more willing to enter into detailed explanation. In every case, however, there is a limitation of definiteness of intention in certain senses of that term. It is natural to admit that we do not mean anything very definite when we talk in a relaxed way in everyday life.

This brings up questions of interpretation, especially expressions like "I interpreted T_0 to mean T_i ," where T_0 is a sentence heard and T_i is a sentence within a group of sentences $T_1, T_2, \dots, T_i, \dots, T_n$ acknowledged to express interpretations of T_0 . Among the answers to questions like "When you heard T_0 did you interpret T_0 in the sense of T_i , or differently?" there is one kind of special interest, namely, answers like "I don't know." They indicate that these people simply do not find any basis for answering. They acknowledge T_i as a possible, even plausible, way of understanding T_0 but feel they don't know whether they actually understood T_0 that way. The "*nescio*-answers" ("I don't know" answers) remind us that when people listen and understand, for example, a part of a speech, there are no or very few "conscious" acts of interpretation. Avoiding the term *conscious* we may say there are few instances of the listener saying to himself " T_i is meant" or occurrences of rudimentary articulations of something to that effect.

Outside small expert groups, the kind of weight expression "(such and such) has been *refuted* (by so-and-so)" is used with a low definiteness of intention. Two groups of students get in touch with requirements of greater

definiteness: law students and students in (some) philosophy of science courses. In the latter, a theory is sometimes said to have been refuted if at least one observation is clearly inconsistent with what the theory predicts. That is, a sufficient condition of correct use of an expression of the kind "theory such and such is refuted" is either stipulated or formulated as a description of what is the common view within a scientific community. In other courses it is said that, strictly speaking, no theory is refuted, because the relevance of the observation depends on the correctness of an indefinite number of assertions expressing the observational conditions, for example, the purity of certain chemicals if the observation has to do with results of a chemical reaction.

The expression "strictly speaking" is of interest here because it is used by people who believe they *know* which usages (ways of speaking) are "strict" in some prescriptive sense. These people indicate different bases of their beliefs. Exactly which bases?

Whatever the case, an empirical investigation of the weight expression "(such and such) has been *refuted* (by so-and-so)" may take years of work by a collaborating group. It is likely that in the long run, the investigation would come to be regarded as less a study of a verbal expression than an investigation of the methodology of hard science or jurisprudence, or of substantial parts of sciences of every kind.

Knowledge as Calcified Research

This article is not meant to motivate colossal research projects but to stimulate awareness of unaddressed problems. Applied to education in colleges and in universities, and the process and dynamics of research, the aim of the article is to remind us that the distinctions true/false, known/unknown, probable/improbable, shown/not shown, refuted/not refuted are only a small fraction of expressions of significance found in attempts to apply the results of research in society. The term *result* is itself an important expression. It is often used almost synonymously with "what is *found* through research," a pervasive metaphor in the political discussions at Rio de Janeiro in June 1992. "What has science *found out* about the climate?" How is "finding" to be understood in research? We are back to the history, methodology, and philosophy of science, or rather, of scientific research. The search

itself is a restless, limitless endeavor with no fixed doctrines whatsoever, because doctrines imply texts, and texts imply interpretations. Scientific *knowledge* is perhaps a name for a calcified, maximum-entropy state of affairs. A section of a scientific encyclopedia without weight expressions is analogous to a clip of a movie.

The intricate *historical* development of a weight expression has been studied carefully in only one case: the expression “ . . . is proved.” The *quod erat demonstrandum* has, especially since the sixteenth century, been studied intensively. After Hilbert and Gödel, the development is beyond the scope of understanding of all except the specialists, but what we all can do is deepen our definiteness of intention when it is called for (and not bother others when it is not called for). The authoritative text of Euclid's *Elements* is extremely poor and uniform in its use of weight expression. Why?

How does the term *scientific knowledge* function relative to the hundreds of strong and weak, simple and very complex, weight expressions used by active researchers?

If it is known that gold is heavier than silver, then gold is heavier than silver. If it is known that p , then p . To say “It is known that p , but it may be false that p ” is felt to be awkward. Today, however, it is common to say that all scientific knowledge is hypothetical. “Any part of scientific knowledge may be wrong, mistaken.” If it is scientifically known that p , then p or not- p —a modest claim indeed! Of course, the claim is stronger, but just how strong? In fact, there is not one claim but hundreds: corresponding to the hundreds of weight expressions alive in active research along its long frontier. To say that all scientific knowledge is hypothetical has been adequate as an opening to a discussion in which neither the term *knowledge* nor the term *hypothetical* may have any important function. A manifold of expressions takes over.

Too many gifted young people are overwhelmed by the requirement of “knowing,” especially in hard sciences education. It is difficult to change this, but more courses in “physics appreciation” will certainly help to increase motivation, to mention only one factor. The ideal appreciation courses appeal to the imagination, the adventurous, the process of *search*, not knowledge. Another factor is a shift to scenarios and inventions rather than discovery of new facts: the theories in modern hard science are primarily inventions, creations of speculative fantasy, and only touching observa-

tion at infinitely few, but decisive, points. Therefore, the weight expressions are only rarely those of knowledge, fact, probability, verification, or even falsification. If students could be invited to read texts more suggestive of the dynamics of living research, they would feel the relevance of the life of hard science to their own way of life.

The *pedagogical* importance of the study of weight expressions owes, therefore, to several factors. One is the lamentable poverty of weight expressions in contemporary textbooks and popularizations. The intricate process of simplification, condensation, and standardization neglects what is actually *claimed* by researchers, sentence by sentence. When complex and weak weight expressions are left out, the scientific enterprise as a vast human cultural enterprise is largely forgotten.

An Inventory of Weight Expressions in Science

In what follows I shall use data gathered in the 1950s as part of an unpublished study of weight expressions.

To secure comparable units of text from different scientific works, we calculated the number of "letter places" per page and also the number of pages necessary to obtain a standard unit of investigation, 120,000 letter places. As a letter place we counted the place of a single letter or an open space between two words or between two sentences.¹ Textual pictures, tables, and footnotes were not subjected to calculation, nor were quotations from other authors. A unit of 120,000 letter places in a text we called a "population." The number of pages per population in our collection of data ranged from about 40 to 120.

In all, every weight expression in 70 populations from 62 works was underlined. In order to compare scientific texts on a technical level with other kinds of texts, we chose some works that were articles and books of a different character: textbooks of science and popularizations. The works were numbered 1 to 62. The number combination 31,2 stands for population number 2 in work number 31. The underlining of weight expressions requires a fairly definite delimitation of such expression as opposed to others. The wording of the instruction on what to underline must be (1) interpreted in a similar way, and (2) applied in a similar way by different underliners. Our goal was to obtain more than 90 percent agreement or identity of un-

derlinings. A test confirmed that the instruction worked satisfactorily. There were, of course, discrepancies. In the case of population 31,2 the first investigator underlined 72 expressions and the second underlined 79. Moreover, the first underliner classed an occurrence of "appear" as a weight expression whereas the second did not, and the second classed as a weight expression an occurrence of "appears" that the first did not. The discrepancies were attributable to different interpretations of the *context of the occurrences*.

Why not formulate a fairly precise definition of the term *weight expression*? That would solve many questions. Roughly, this is the reason: it would regulate the collection of data in agreement with a *special preconceived concept* within a large field not yet charted.

Four populations concerned mathematics, two statistics, two mechanics, one astronomy, nine chemistry, eight geology, four paleontology, two zoology, seven biology, three physiology, five psychology, two psychiatry, two sociology, two economics, two science of law, eleven history, and four philosophy.

Thirty-six of the populations were classified as "technical" in the sense of not "mere" textbooks and not popular; twenty-eight were classed as textbooks, and six as popular. Sixty-two texts were written in the twentieth century and eight in the seventeenth, eighteenth, or nineteenth century.²

Forty-three were written in English, nineteen in German, and eight in Norwegian. From the point of view of methodology it would have been preferable to have only one language represented. The translatability of nearly all expressions is remarkable, however. It is difficult to find any use difference among, for example, "it is the case that," "es ist der Fall dass," and "det er tilfelle at."

The Frequency of Weight Expressions

The average frequency, all seventy populations taken together, is 20.3 weight expressions per 10,000 letter places. These expressions consist on the average of 2 words each. The average number of words per 10,000 letter places is about 1,600. This means that about 2.5 percent of the total number of words are weight expressions. That is about 40 words per 10,000 letter places, 40 out of 1,600 words. Thus, the weight expressions form a significant part of scientific texts.

Table 2. Most Frequently Used Weight Expressions.

English Expressions	German Expressions
1. show (that such and such)	1. ergeben (es ergibt sich dass . . .)
2. see	2. gelten, gültig
3. find	3. annehmen, Annahme
4. prove, proof	4. zeigt
5. fact	5. scheint, erscheint
6. assume, assumption	6. wahrscheinlich, Wahrscheinlichkeit
7. seem	7. beweisen, Beweis
8. probable, probably, probability	8. offenbar
9. know, knowledge	9. sehen
10. evident, evidently	10. möglich, Möglichkeit

Popularizations showed an average of 13.6 weight expressions per 10,000 letter places, textbooks 15.6, and (scientific) technical writings 25.0. This confirms a tentative hypothesis that there is a general decline in the use of weight expressions with distance from the live process of scientific research. Therefore, students reading textbooks do not get an intimate contact with how it feels and what it takes to do research and to assess the weight of what is asserted or announced.

Comparing authors, we find clear differences. Some authors tend to repeat the use of certain weight expressions and to use only a few different ones. Others use weight expressions infrequently but employ a relatively high number of different ones. The relation between the total number of weight expressions used and the number of different ones is found to be 4.44. The relation varies from 2.16 in population 55, a popular English work on history, to 10.08 in population 29, a German textbook on mathematics.

The meagerness of data does not warrant close statistical analysis. The investigation was planned as a pilot study, opening up a promising field.

In order to obtain a rough idea of relative frequency, we shall refer to ten populations, five English (populations 2, 3, 4, 5, and 6) and five German (populations 7, 8, 10, 22, and 27). In table 2 we have listed in order of frequency the ten most frequent weight expressions in the two main languages. The classification of “assumption” as a weight expression depends heavily on the context. Sometimes it is a near-synonym for “working hy-

pothesis." Sometimes the researcher is only interested in what logically follows, if such and such is used as a premise.

The two lists shown in table 2 are fairly similar, 1 = 4, 2 = 9, 3 = 1 (?), 4 = 7, 5 = ?, 6 = 3, 7 = 5, 8 = 6, 9 = ?, 10 = 8. In the German list we have *gelten* (to hold good) and *möglich* (possible), which have no near-synonyms in the English list.

Many well-known expressions are absent from the list: true, false, mistaken, (not) the case, falsified, verified, confirmed, certain, likely, corresponding with reality, really so.

Strong Versus Weak Claims

In population 30,2 we find the sentence "It seems clear that the nucleus is the controlling center in cell activity." We interpreted this to express a weaker—more moderate, less weighty—claim than would be expressed by "The nucleus is clearly the controlling center in cell activity." As still weaker we would class "It seems that the nucleus. . . ." One might introduce a measure of strength, let us say from -10 to +10, but the arbitrariness would be too great. Instead, we class the expressions into four broad, significant classes—very strong, strong, weak, very weak—and attach a number to each: 2, 1, -1, -2. Expressions that we class as neither strong nor weak, but somewhere in between, or expressions that are very difficult to judge in terms of strength, we leave out of our statistics—a kind of 0-class. It is to be expected that different investigators show fairly big differences in how they class the expressions, perhaps more than 10 percent differences. Context plays a large role, and so do personal terminological idiosyncrasies. An expression like "it seems clear that" may for one author be a stronger claim than for another—"it seems *clear* that" versus "it *seems* clear that." The one may habitually use "seems"; the other, rarely and with emphasis.

Gottlob Frege was careful with his use of weight expressions, but in a famous letter to Bertrand Russell we may safely assume that a generally rather weak expression hides a stronger intended message: "Your discovery of the contradiction caused me the greatest surprise and, I *would almost say*, consternation (*Entsetzung*), since it has shaken the basis on which I intended to build arithmetic." Frege *was entsetzt!* The weight expressions have a negative function: to admit uncertainty, to express qualifications, to shy away from crude,

simple assertion. Using the above scale we can therefore expect that the sum for each population is a number less than zero. Actually, the general average for all seventy populations is found to be -14 . The range is from -212 in population 18, a series of English articles on psychology, to $+190$ in population 5, a technical English work on statistics. It is tempting to say that the difference reveals the modest epistemological status of psychological research and the established high status of theoretical statistics. (An investigation of opinions among scientists on statistics *in practice* showed a remarkable degree of scepticism; this holds, for example, for the master statistician Trygve Haavelmo.) The data do not admit anything but conjectures. As could be expected, there are more weak and very weak expressions used in technical works than in textbooks (averages -29 and $+2$). Does this mean that consumers of research are more uncritical than producers?

Expressions Referring to Human Activity or Experience

A distinction of considerable interest is that between weight expressions referring to human relations and those that either do not invoke any such relations or do so only in an indirect or implied way. Calling something a fact or a truth is an example of the latter; calling something an assumption is "strictly speaking" talking about a human act, usually in relation to an opinion or theoretical premise that is accepted as tenable. Saying that something is proved refers only to a human action, but it is *implied* that if a theorem is proved, it is true or valid. "Valid" in some contexts and some interpretations refers to human society; in other cases, it is as faintly suggestive of human relations or affairs as "true." It is notable, however, that most people strongly associate the term *true* with the very human activity of testing. "That it is shown" and closely similar homocentric expressions are the most frequent kind of answer to the question "What is the common characteristic of all that is true?" among people who are not professional philosophers (Naess 1938). Professionals may react with a depreciating remark that there are infinitely many truths that are not "shown" and never will be shown. But nonphilosophers seem to *presume* that "it" in "it is true" and similar expressions refers to something that has already been considered by human beings. The abstract use of the term is often not accepted. People find the thought queer that there is or even exists at any given moment an

infinity of unknown truths about unknown things. A book *could* be written about each individual drop of rain in the Amazon rain forests, thousands of potential truths and errors about each drop—but people are not impressed!

Sometimes, not often, nonprofessionals are able to *articulate* fairly pragmatic views about truth. In short, the expressions “it is true” and “it is shown” have many functions in common. Studied from one perspective, every function can be defined in terms of human relations. Each occurrence of each of the weight expressions may be said to have a function within a larger whole, a *Verhaltensweise*, only in part verbal.³ From a different perspective, we may, and should, define them as without explicit relation to human beings. I have called such weight expressions *homofugal*—escaping from the human. The others I call *homopetal*—human-seeking.

The attempt to classify expressions consistently as homopetal or homofugal leads to complex studies of context. The weight expressions “evident,” “evidently,” and “evidence” function in most contexts as homopetals. Human beings experience evidence when considering certain assertions. In a phenomenological context, however, we find descriptions of how human beings may be confronted with the evident as such much as they are confronted with a wall. Edmund Husserl in his monumental *Logische Untersuchungen*⁴ talks about a confrontation with the inescapable evidence of the law of contradiction, not as an experience of evidence but as something inherent in the law. The evidence is not on the side of a subject experiencing evidence. Nothing human is implied when the subject is confronted with the simple *that it is so*, the *Sachverhalt* itself. When confronted with a tiger we should be aware that we are not confronted with an experience (*Erlebnis*) of a tiger. The evidence of the principle of contradiction (properly understood) is a kind of real tiger in this respect. In short, practical application of the proposed classification of homopetals is “relational” in the sense of being dependent on philosophical premises being accepted. In certain early Husserlian contexts, *evident* and *Evidenz* are homofugal weight expressions, and perhaps also in many other contexts.

Among the introductory textbooks investigated, I wish to mention Ludwig Kiepert's *Grundriss der Integral-Rechnung* (1920). It belongs to a different mathematical-pedagogical culture than that of today. There is no sense of cleverness and hurry in its pages, no impression of life in the fast lane. The “progress,” step-by-step, is so slow, the elementary examples so

many and so *ausführlich* (exhaustive), that it can be read in the same way we read an entertaining book on history or gastronomy. Space is ample—why not use 932 pages? The paper is rough and ecologically defensible; Germany in 1920 could not afford luxurious, chemically complicated paper.

The weight expressions in this text are few and simple: something is *found* or *proved*, something is *valid*. There are weight expressions, but the atmosphere is one of confidence and equanimity. The context makes it clear that the seemingly bold expression “for the sake of simplicity the assumption is made that . . .” (Kiepert 1920: 620) is not a weight expression.

The texts written in past centuries were few: Robert Boyle’s *The Sceptical Chymist* (1661); Malthus, *On the Principles of Population* (1798); Thomas Henry Huxley, *Man’s Place in Nature* (1863); selections from Spinoza; Adam Smith, *The Wealth of Nations* (1776); Charles Darwin, *Origin of Species* (1859) and *The Descent of Man* (1871). There is no marked difference in the use of weight expressions correlating with time in our data, but I suspect that with more data, significant differences would be found in the literature of physics (more reference to human activity—for example, assumptions).

An Ontological Reflection

A short conversation:

A: Your theory developed in your recent book is admirable. All through the book you make an assumption, let us call it *P*, for short. Don’t you assume *P*?

B: Yes, I do.

A: In the book you use the weight expressions “probably,” “evidently,” “scarcely correct,” and others. If the assumption is false, would you have to change those expressions all through your text?

B: Of course, practically all of them. My weight expressions would, on the whole, be drastically changed, but certainly they would not be more complex. The text would have been far more complicated.

In natural science, untestable or untested assumptions play an increasing role. This makes it less adequate, sometimes even squarely misleading,

to use the simple, familiar homopetal expressions accepted at the level of activity in the laboratories. At the observational level, the enormity of technical equipment overshadows the old dominion of just seeing that such and such is the case.

When a set of assertions A is used as a set of premises for B , B for C , C for D , and only D is on the observational level, the homofugal weight expressions are misleading, except to characterize derivations within formalisms. There are infinitely many sets of premises from which B follows, and infinitely many from which C follows. Because of the theoretical levels of A , B , C , the case is different from the derivation in "All fish are warm-blooded, all whales are fish, therefore all whales are warm-blooded." The set of premises here is close to the observational level. In the hard sciences, there are long chains of derivation within the nonobservational sphere.

The long derivation chains lead away from the Einsteinian ontological view of physical reality toward the conventionalism of Henri Poincaré and the "conventionalist" school. A more appropriate name would be "assumptionism." Niels Bohr, in his famous Moscow discussions, showed the way: quantum physics may be regarded as a set of abstract structural assumptions, freely chosen, from which we can derive conclusions tested on the everyday level of setting up experiments and observing light signals.

There are heuristical limits to the choice of possible physical worlds, but no theory is more "probable" than any other. "From probabilism to possibilism?"⁵

Back to the short conversation at the head of this section. When ten more or less observationally untestable assumptions are made along a chain of derivations, negating one or more of them results in 1,023 alternatives, none of them contrary to observation. Research does not consist in trying to find out which theory is true, most probable, nearest to what is the case. Weight expressions still have a crucial role, but it tends to be a complex one in terms of human activity and experience. Ontology need not turn toward subjectivism, but toward appreciating the world as experienced in everyday life, listening to the physicists who are engaged in work with models of the (very) abstract *structure* of reality.

Can Knowledge Be Reached?

My thesis in this paper is that there is no amount or quality of evidence such that if that amount or quality is reached, then truth is reached. If, therefore, a proposition must be true in order to constitute knowledge, knowledge is never reached. If certain standards of evidence are satisfied I have the right to *say* “I know,” and the right does not depend on how one answers the question whether it is right *what* I say.

The conclusion of this paper will be that knowledge cannot be reached. Or rather, that in an important sense of ‘knowledge’ and of ‘reaching’, knowledge is not something that we can reach. We may already possess it—and I do consider both myself and others to know quite a lot—but I cannot see that I am able to offer a philosophically satisfactory account of how we could possibly have come nearer to it until a definite event happened: we reached it.

Formulated and interpreted with care, this conclusion is, I think, both nontrivial and true. It is restricted, though, to those concepts of knowledge that require that in order to reach knowledge, we must reach truth, and restricted also to those concepts of truth that require that in order to be true, what we say must be so.¹

There is an old and distinguished family of definitions or criteria of knowledge with a requirement that for something to be known, it must be true, and for something to be true, it must be the case. The truth requirement may be thus formulated: something cannot both be known to be so and yet not be so.

This article is taken from a lecture delivered at Oxford University in October 1969 and was reprinted with permission from *Inquiry: An Interdisciplinary Journal of Philosophy* (New York and London: Routledge, Taylor & Francis Group) 4 (1961): 219–27.

The expressions “to be so,” “to be the case,” and “to be true” are very near in meaning and function in the context relevant to our problem. If we substitute “to be true” for “to be so” in our formulation of the truth requirement, we arrive at a rather modest claim, closely related to the truth requirement: something cannot both be known to be true and yet not be true. I mention this in order to stress that giving up the truth requirement of knowledge would lead to paradoxical, or at least very queer, results.

Within this family of definitions, or criteria, or sets of necessary and sufficient conditions of knowledge, there is a subfamily with three requirements: one can only be said to *know* that *p* if (1) one is sure that *p*; (2) one has adequate grounds for being sure that *p*; and (3) *p* is true.

The requirements may be transformed into a questionnaire of three questions. Some such questionnaire cannot easily be avoided if the definitions or criteria are to be used in concrete cases by people who want to make sure that they themselves or others *know* that such and such is the case, and not just believe it, assume it, and so on.

Suppose I take it for a fact that Mr. Nixon’s opinions concerning the Chinese offshore islands are about the same as President Kennedy’s. Suppose also that in Mr. Nixon’s behavior I find indications that he himself either *knows* this to be the case, or has *made a guess* to that effect, or for some reason or other has chosen to perform some of his actions on *the assumption* that this is the case, and so on. If, then, I want to answer the question of whether Mr. Nixon knows, or makes a guess, or assumes that such and such is the case, I may decide to make use of the following kind of questionnaire:

1. Is he sure that *p*?
2. Does he have adequate grounds for being sure that *p*?
3. Is *p* true?

In this questionnaire the third question is different from the conjunction of (1) and (2).

Now, however, we come to the problem children of our distinguished family, the criteria that *I* know that *p*:

2. “I know that *p*” — “I am sure that *p*; I have adequate grounds for being sure that *p*; *p* is true.”

In asking myself, or being asked by others, whether I know p to be the case, what am I to do when confronted with the third requirement, that p be true? If I am trying to decide whether *I* know or don't know p to be the case, what, then, is the relation between the first two requirements and the third one? Is it really a new question?

For the sake of an easy survey I write out both the third-person questionnaire, where I answer questions about a third person, and the first-person questionnaire, where I answer questions about myself:

Question 1: Is he sure that p ?

Question 2: Does he have adequate grounds for being sure that p ?

Question 3: Is p true?

Question 1: Am I sure that p ?

Question 2: Do I have adequate grounds for being sure that p ?

Question 3: Is p true?

There is some sort of incongruency between the two questionnaires. In deciding whether *he* knows, it is *I* who answer the question whether p is true, and, of course, I do it on the basis of my own beliefs and grounds—to which there is no reference in the questionnaire. The third-person questionnaire is that of a bystander or observer, or it is that of an editor of an encyclopedia of knowledge, such as, for example, Otto Neurath, whose views about knowledge, according to Bertrand Russell, were characteristic of an editor who is not also a contributor.

Faced with question 3 of the first-person questionnaire ("Is p true?"), I shall once more ask myself, Do I have adequate grounds for being sure that p ?—or I shall frantically search for something more than evidence, say a guarantee of truth. (Sometimes I firmly believe that I have a guarantee, but, speaking generally, I adhere to the view that there can be no guarantee for the truth of a statement whose negation is not some sort of contradiction.)

If I have already answered yes to the question about adequate grounds, the question "Is p true?" will either be interpreted as a repetition of the question about adequate grounds, or it will be interpreted as unanswerable

or awkward, like the question “Irrespective of adequate grounds and my own conviction—*is p* true?”

Nonphilosophers, and perhaps philosophers too, employ concepts of truth in their everyday life that are completely independent of requirements about being sure, and completely independent of requirements about adequate grounds or the right to be sure. I have called such concepts, or conceptions, of truth homofugal and contrasted them with what I have called homopetal conceptions. In the homofugal conceptions there is no reference to human conditions or human activities.

Not without a struggle with my own inclinations, I have long accepted a homofugal conception of truth as inevitable. Given a homofugal interpretation, however, the first-person questionnaire is a bad questionnaire, since the third question cannot then be answered. That is, it cannot be answered on the basis of rational considerations.

If, on the other hand, we accept a homopetal conception of truth, and interpret the third question accordingly, the question will be redundant, since the answer to it will follow from the answer to question 1 or 2.

Thus it seems that for both conceptions of truth, the questionnaire is ill conceived.

Before I continue, I ought perhaps to mention how I interpret “adequate grounds” and “the right to be sure.” According to one interpretation, grounds are adequate only if they guarantee truth, and nothing less than such a guarantee gives one the right to be sure. This is not how I use these expressions in this paper. According to another interpretation, which *is* how I use these expressions, grounds are adequate if definite, but variable, standards of evidence are satisfied, and when they are satisfied, one has also the right to be sure.

I shall now put forth a theory or an explanation, or at least a few comments, as to *why* the first-person questionnaire is felt to be so awkward. Some people have found my explanation highly speculative and metaphysical, whereas others have found it simple and commonsensical.

In saying “*p* is true” I do not intend, or very often do not intend, to express anything that has to do with *my* relation to *p*. I just tell that *it is so*, that what *p* says *is the case*. I enjoy a homofugal attitude or bent of mind. Or, if I am a staunch ontologist, I shall say that I am absorbed in the world of objects. At least, these are the words that seem to fit in retrospection.

I am, however, never safe in my enjoyment of truth. A shift may occur at any moment that makes me see, or search for, *my* relation to truth, or *my* relation to *p*. Of what kind is my access to truth, that I can utter, as a rational being and with a sober voice, "*p* is true"? I want to get a picture of myself grasping truth and holding it in my hands.

Whether or not such reflection results in reassuring myself that *p* is true, the natural, and adequate, expressions of my reflection are homopetal, not homofugal. I may feel surer than ever that Francis Bacon did not write *Hamlet*; that is, I am more positive than ever in my answer to question 1; or more than ever do I consider my grounds as adequate and my methodology unassailable—and in saying so, I repeat my answer to question 2. I shall not make use of the expression "*p* is true" or any other homofugal expression, however, because my attention is egocentric. Perhaps, instead of answering question 3, I shall say, "I am more convinced than ever that *p* is true," but from that it does not follow that I am willing to say simply "*p* is true."

There is, in some sense, no way back from the evidence attitude to the attitude of simply saying what is. On the other hand, the simple attitude of asserting truth does not have to lead to questions of evidence.

So far, I have discussed the awkwardness of first asking for evidence and then—immediately afterward—for truth. Maybe a simple change, asking for truth first and then for evidence, will save us from trouble. Professor Chisholm, in his book on perception, places the truth requirement as the third one, but Professor Ayer, in *The Problem of Knowledge*, places the truth requirement as the first one:

I conclude then that the necessary and sufficient conditions for knowing that something is the case are first that what one is said to know be true, secondly that one be sure of it, and thirdly that one should have the right to be sure.

(Ayer 1962: 35)

Reformulated, this piece of text may well be taken as a member of the family of definitions under consideration. A corresponding questionnaire in the first person would run as follows:

Question 1: Is what I say I know true?

Question 2: Am I sure of what I say I know?

Question 3: Do I have the right to be sure of what I say I know?

For the present purpose, these questions may be reformulated as follows:

Question 1: Is p true?

Question 2: Am I sure that p ?

Question 3: Do I have the right to be sure that p ?

As an oral questionnaire this one is likely to be more successful than the previous first-person questionnaires, because here the subject is asked about p before he is asked about his relation to p .

Suppose I answer yes to all three questions but then get worried about the first question and change my answer from a simple "Yes, it is" to "I am sure, and I have the right to be sure that p is true." Such a change would seem to me irrational; that is, I cannot see that I could give it a rational justification. Any such justification would amount to a rational reconstruction of the transition from truth attitude to evidence attitude.

It seems that saying, of a given p , "It is so," "It is the case," "It is true," or simply asserting p , is an act for which there can be no adequate rational reconstruction. Saying "It is so," etc., does not entail, and is not entailed by, any statement about adequacy of grounds or firmness of conviction. Therefore, accumulation of evidence makes me say "There are now more grounds than ever for taking p to be true" or "I am now more justified than ever in my conviction that p is true," rather than repeat "It is so." As long as my attention is focused on the increasing evidence, or as long as I am not absorbed in immediate perception or intuition, my verdict is adequately expressed in homopetal terms only.

The transition from truth to evidence, or vice versa, might perhaps be understood in terms of levels. If I enjoy truth while absorbed in the amassing of evidence, my use of the expression "It is true" refers to second-order statements: "That the weight of my evidence is crushing, is as simple a truth as can be." "My conviction is total. That is the simple truth." "You earned your right to be sure that the gun was unloaded, that is true; but, God bless your soul, you were mistaken in saying you knew."

If reflections enter the scene while I am enjoying truths of the second

level, the homofugal terms will disappear from that level, and if they reappear, it will be at the third level; and so on.

At any level, a philosopher may point to something I assert, enjoying truth, and correctly comment that I believe I have knowledge. If, however, the philosopher is inclined to argue in favor of scepticism, he may point instead to the transition from enjoying truth to collecting evidence and correctly comment that no volume of evidence will regain for me my first enjoyment of truth.

One position that might be called sceptical—although I do not think it ought to be called that without qualifications—can be thus formulated: no evidence of a proposition is such that if it is available then the proposition is true.

If to reach truth, or to grasp truth, is to reach or grasp a guarantee that it is not falsity, we can say: truth or falsity cannot be reached by increasing evidence.

And if “knowledge” is defined in such a way that “to know that p ” implies “ p is true,” then we get another set of formulations characterizing the position: no evidence that p is so strong that if a person has that evidence, he knows that p . In other words: knowledge cannot be reached by increasing evidence.²

We might continue: if to understand or to see or remember that p is the case implies that p is true, then understanding or seeing or remembering that p cannot be brought about by increasing the evidence.

After all the talk about our not being able to reach such and such, we may feel better if we contemplate for a moment a case of our actually being able to reach something. I choose the case of reaching for an apple. In reaching out for it, my hand is brought continuously nearer to the apple. The act is brought to its happy end as I grasp it, and my grasping the apple is an event that stands out as something very different from my hand coming close to it. This difference is clear even if the “apple” reached subsequently is found to be of wood and therefore not an apple at all.

If I am too eager, or too drunk, I may overreach myself and grasp somewhere beyond the apple. There is nothing of all this in our groping for knowledge. We can perhaps estimate, or even measure, an increase in evidence, but not an approximation to knowledge. The event of grasping is not forthcoming, and nothing corresponds to reaching beyond. One can

even measure the distance of the hand from the apple. At a certain point, point zero, the hand reaches the apple. One can also specify an increase in evidence and perhaps find a scale for measuring this, but one cannot specify the distance from truth and the reaching of truth. One cannot fix a point zero in terms of evidence.

I have used the expression "truth attitude" a couple of times, meaning the attitude, or state of mind, of simply enjoying truths and asserting them once in a while, in contrast to the attitude, or state of mind, of collecting evidence. Now, it seems that I can *say* "A is now enjoying truth" only about others. There is something queer about the statement "I am now enjoying truth," since it seems to presuppose reflection inconsistent with the very attitude it expresses. I say that I am at a level I cannot possibly be at the moment I say it, or think it. My friend may say to me, "You are now enjoying truth at level zero." If I answer, "Yes, I am," he can say, "No, you are not; you are enjoying it at level one." Meekly I admit it is as he says, only to be told that I am now at level two; and so forth.

This conversation need not worry us, however. It only reflects the fact that the truth attitude is linked to the act of asserting and does not disappear when reflection begins. It continues, but at level $n + 1$.

That knowledge cannot be reached is of little importance if it owes to the circumstance that we already have it. If we already have it, however, how are we to account for our strivings to increase evidence? Our situation seems to resemble the lot of the human race according to a certain doctrine of grace: good actions do not qualify for salvation, but they should be undertaken, and with salvation in view.

After all, our epistemological situation is not so strange. We strive to increase evidence because we think that we have often been mistaken, and most often when the evidence has been meager.

The successive editions of an encyclopedia of statements satisfying certain standards of evidence may rationally be expected to show fewer corrections the higher the standards. What would be the difference between an encyclopedia claiming knowledge and an encyclopedia claiming evidence only? It seems to me that there would be none, except in the subtitle and in the accounts of how the present edition differs from the foregoing. In the encyclopedia of knowledge there will be more acknowledgments of mistakes.

It is sometimes said that the sceptic insists on standards of evidence

that are impossible to reach. If this is characteristic of all forms of scepticism, then the view I advocate is not a form of scepticism. The requirement of truth is independent of the requirement of evidence. I do not quarrel with the standards of evidence; they have, perhaps, as a result of the prestige of the natural sciences, been placed too high in many fields of inquiry.

If, however, we do not make impossible standards of evidence part of our definition of scepticism—which, of course, we ought not to do—then the view I advocate is, I think, a form of scepticism, since it asserts the unattainability of knowledge. Whether it is a trivial form is a question we might cleave in two: one psychological and one logical. To the psychological question I can only answer that, to me, it is not a trivial form: I cannot but feel sorry and deceived, having imagined that in our search, and in particular in our research, there is a guarantee that we shall reach truth, and therefore knowledge. I can still *imagine* that the conditions of human existence were such that in our strivings we would sometimes reach knowledge and, of course, know that we had reached it, but I cannot imagine the conditions themselves.

Perhaps the *meaningfulness* I attach to my form of scepticism cannot be given a rational expression, with propositional content and logical consequences. If it cannot, then the answer to the logical question is not only that my form of scepticism is trivial, but that it is logically nonexistent. I think, however, that it can be given a rational expression. Even if I find it impossible to describe the conditions I imagine possible, and so must be content with a set of negations, like “Knowledge cannot be reached by increasing evidence,” and a set of rules limiting the applicability of such a maxim (that it must not include itself, etc.), such maxims are themselves meaningful propositions with consequences that can be derived by the usual rules of inference.

Husserl on the Apodictic Evidence of Ideal Laws

It is now more than fifty years since the publication of Husserl's *Logische Untersuchungen*. His argumentations are formulated with such care, thoroughness, and vigor, and many of his conclusions are so well substantiated by later research, that the book is justly regarded as one of the philosophy classics of the twentieth century.

There is a quality in the *Logische Untersuchungen* that is not often commented on, but that deserves unreserved praise: the fairness and unbiasedness, the *Sachlichkeit* of his exposition of the doctrines criticized, especially those of psychologism. No charge is directed against imaginary adversaries, but against amply quoted assertions in definite texts. Considering the passion and consequence with which Husserl hammers out his views, this fairness is most admirable and makes his contribution singularly adapted to philosophical analysis.

In this article, some reflections are made about the character of the phenomenological approach. They do not conclude in any criticism of the main theses of *Logische Untersuchungen*, but interpret them in the light of a philosophy of philosophy that is diametrically opposite to that of Husserl.

Husserl continues the tradition of those philosophers who try to bring certain fundamental disciplines *in den sicheren Gang einer Wissenschaft* by starting from apodictically certain, definitely established, intuitively grasped truths. The present article represents the tradition of those who believe that the status of science will, if at all, be reached by continuation and expansion of that kind of research that has provided us with matter-of-fact knowledge, tentative hypotheses, and laws with different degrees of high probability.

This article was reprinted with permission from *Theoria: A Swedish Journal of Philosophy* 20 (1954): 53–63.

Husserl attacks “psychologism” and “extreme empiricism.” The first term is defined in section 17 of the first volume of *Logische Untersuchungen* as a kind of theory about the relation of psychology to formal logic: “Die wesentlichen theoretischen Fundamente (der Logik) liegen in der Psychologie,—Die Logik verhält sich zur Psychologie wie irgendein Zweig der chemischen Technologie zur Chemie, wie die Feldmesskunst zur Geometrie u. dgl.”¹ “In theoretischer Beziehung verhält sich also die Logik zur Psychologie wie der Teil zum Ganzen. Ihr Hauptziel ist es zumal, Sätze der Form herzustellen: Gerade so und nicht anders müssen sich—allgemein oder unter bestimmt charakterisierten Umständen—die intellektuellen Betätigungen formen, anordnen und zusammenschliessen, damit die resultierenden Urteile den Character der Evidenz, der Erkenntnis im prägnanten Sinne des Wortes erlangen.”² [*Editor’s Note:* See notes, pages 351–52, for English translations.]

The imposing development of symbolic logic as an independent science in recent decades and also its close connection with mathematics makes it difficult for us to understand how eminent thinkers such as St. Mill, Sigwart, and Erdmann could embrace the plainly untenable doctrines of psychologism. The development has no striking parallel in causal sciences having human reasoning in logic and mathematics as their subject matter. The belief of St. Mill, Sigwart, Erdmann, Lipps, and Cornelius that such sciences under the leadership of the new psychology should be able to explain genetically and causally the development of the formal sciences was unwarranted or at least premature. The traditions of empiricism suffered from the defeat, and it is characteristic that many philosophers of our day who strongly emphasize their empirical and “antimetaphysical” leanings (Russell, Carnap, and others) are severe in their criticism of the dominant trends in empirical theory of knowledge of the nineteenth century.

The mistake of psychologism is only a consequence of a much deeper and more common mistake, according to Husserl. “Die psychologistischen Logiker verkennen die grundwesentlichen und ewig unüberbrückbaren Unterschiede zwischen Idealgesetz und Realgesetz, zwischen normierender Regelung und kausaler Regelung, zwischen logischer und realer Notwendigkeit, zwischen logischem Grund und Realgrund.”³

The psychologists seemed to believe that the *principium contradictionis* could be validated by an inference with psychological or, more generally,

factual premises. Many premises were offered. We cannot at the same time both believe and not believe in the same proposition. If we deny the laws of thought, we reaffirm them in our very denial. The principle of contradiction evokes in us complete evidence.

Because of and on the basis of these or other *Tatsachen* concerning human beings and their thinking, the *principium contradictionis* is valid—according to psychologism. It would be possible to reformulate pure logic as a factual science, a kind of anthropological discipline.

Husserl maintains that a “reformulation” along these lines annihilates formal logic, and there is scarcely anybody who would disagree with him today on that point. From the invalidity of $p \ \& \ q$ and $\sim (p \ \& \ q)$ in the propositional calculus, one could not after the “reformulation” rigorously infer any other proposition, let us say $p \ \& \ q$ and $p \vee q$. From the inability to think the former does not “follow” the inability to think the latter. There may be constant confirmation of both instances of inability, and this justifies an inductive inference, but no proof of the propositional calculus could be formulated on that basis.

On the other hand—and this is often forgotten in the laudable effort to stamp out every trace of psychologism—the program of a science of science remains. A science of science must include research dealing with human scientific activity and its products—including pure logic, pure mathematics, and pure theory of knowledge in the sense of Husserl. Among the objects studied we find the calculus of propositions in various modifications and all the proofs, axioms, rules, and metamathematical devices developed in recent times. It is part of the task of empirical philosophy to explore the possibilities of a *kausale Tatsachemwissenschaft*, of establishing *reale Notwendigkeiten* and *Realgründe*. On the basis of such research it is in principle legitimate to expect *predictions* of experiences of apodictic evidence and the establishment of *die Logik als normative und praktische Disziplin* (Husserl 1913: 1: 1). Moreover, all of this must be done without committing empirical philosophy to any form of psychologism.

Husserl does not reject the possibility of such sciences of the real—he only emphasizes that their laws can neither prove nor disprove any strict law, for example, of the kind we require in order to develop formal sciences.

In the realm of the ideal laws in the sense of Husserl, there is necessity and complete exactness of content. Insofar as sentences are intended to ex-

press ideal laws and their interconnections, their *claims* must be to express necessary connections and complete exactness of content.

A researcher in pure mathematics may feel uncertain whether the proofs in his latest publication are all valid; he may even sincerely believe that the probability is less than 0.99 that all conclusions follow in complete strictness from the premises. This, however, will not induce him to change the claims from that of a strict proof to that of a reasonable argumentation. He stand or falls with his *proofs*.

We do not know which claims of living mathematicians and logicians are warranted and which are not. The only way of substantiating any claim is to go through the proofs repeatedly and increase their completeness and explicitness. If we, as part of this activity, make assumptions such as that oneself or the author of a text (actually) follows his definitions, or that he (actually) has certain intentions, these assumptions do not belong to the proofs. They cannot add to or diminish the validity of conclusions. According to Husserl, the validity is either apodictic or not of the kind required in an exact science. Any matter-of-fact assumption about definitions being followed introduces, it seems to me, something foreign to apodictic reasoning.

So much for pure and factual sciences in general. Let us then ask for instances satisfying the requirements of being parts of sciences. It is comparatively easy to give instances satisfying the modest requirement of factual sciences, but, if we are right in our interpretation of Husserl, formidable difficulties confront those who would establish parts of a pure science beyond doubt.

Husserl argues that we have apodictical evidence of pure or ideal laws, such as *modus barbara*, but the assertion that he or any other has this evidence does not belong to pure logic or any other pure or formal science. It belongs to a factual science concerning the relation of logicians (and others) to pure sciences. It is not necessary to conceive this to be psychology. It is enough for our argumentation that it is a science of facts or, more generally, a science about the real rather than the ideal.

Any assertion that a sentence interpreted as intended by a logician (or by myself, or by any other person) expresses an ideal law (and therefore something completely exact and of apodictic validity) is a sentence in principle belonging to the *Tatsachewissenschaften*. It does not belong to pure

science (*reine Wissenschaftslehre, reine Erkenntnistheorie*) but to a part of science concerned with certain kinds of objects and asserting things about those objects that may be true or false, depending on our shifting abilities of thinking and observing.

Factually existing sentences in treatises of pure logic may—as Husserl says—have the claim to express ideal laws, but from a claim does not follow its own satisfaction. Which sentences actually express ideal laws is a question admitting different answers, contradicting each other. The products of logicians are human products, and whatever their aspirations, the adequateness of their relations to the entities of the realm of the ideal is not apodictically evident. Those relations must be established inductively.

If it is objected that certain strict laws such as the *principium contradictionis* cannot be doubted because their very denial reaffirms the principle, the argumentation is already within the realm of *Tatsachengewissenschaften*: something is asserted about the possibility or impossibility of certain acts of thinking, doubting, and so on. The arguments against psychologism are applicable to such an attempt to validate that ideal law to which Husserl gives the name *principium contradictionis*.

The objection is also ill-conceived, because no argument in the foregoing paragraphs has been directed against the apodictic validity of the ideal laws. The subject matters under consideration are the products of existing mathematicians and logicians in their relation to ideal laws. Does any such product express an ideal law?

In the foregoing we have mentioned how Husserl conceives the difference between the real and the ideal sciences. We shall now consider what he offers as a criterion by which we can know beyond doubt that we have reached knowledge in the strict sense of the word, *Wissen im strengsten Sinne*. The criterion is *evidence*. Husserl elucidated what he means by *Evidenz* by calling it (defining it?) “unmittelbares Innewerden der Wahrheit selbst” and “die lichtvolle Gewissheit, dass ist, was wir anerkannt, oder nicht ist, was wir verworfen haben.”⁴ Evidence is, of course, to be distinguished from one’s merely being completely convinced about something. The difference is itself evident in certain special situations, namely, when we concentrate on ideal relations such as those expressed by the pure science.

Let us quote a passage in which Husserl describes how we as human beings can meet and grasp ideal existences and reach apodictic certainty:

Indem wir nun einen Erkenntnisakt vollziehen oder, wie ich es mit Vorliebe ausdrücke, in ihm leben, sind wir, “mit dem Gegenständlichen beschäftigt,” das er, eben in erkennender Weise, meint und setzt; und ist es Erkenntnis im strengsten Sinne, d.h. urteilen wir mit Evidenz, so ist das Gegenständliche originär *gegeben*. Der Sachverhalt steht uns jetzt nicht bloss vermeintlich, sondern wirklich vor Augen und in ihm der Gegenstand selbst, als das, was er ist, d.h. genau so und nicht anders, als wie er in dieser Erkenntnis gemeint ist: als Träger dieser Eigenschaften als Glied dieser Relationen u. dgl.⁵

This passage, with its many striking metaphors, is as good as any in calling attention to what sometimes happens when we assert such a truth as *modus barbara* or “dass die drei Höhen eines Dreieckes sich in einem Punkte schneiden” (Husserl 1913: 2:44). I doubt that anybody could in truth say that he has never experienced “Erkenntnis im strengsten Sinne.” If he is inclined toward scepticism, he may get rid of that experience relating to a particular assertion, but in extricating himself from what he considers an illusion of absolute or apodictic knowledge, he runs the risk of having a new experience of the kind he just subjected to scrutiny.

On the other hand, there is nothing in Husserl’s description that eliminates the possibility of mistaking knowledge of less than the strictest kind for a piece of knowledge of the strictest kind. The history of pure mathematics and rejected doctoral theses both illustrate this point. There is nothing in the description of how we arrive at and judge apodictic knowledge that can help people who do not *really* have a *Sachverhalt wirklich vor Augen* but are fully convinced that they do.

From this I conclude that it is not possible to describe the intimate meeting of human beings with the *Sachverhalt* in such a way that it can be effectively described for the benefit of those who doubt that they have the power to distinguish those meetings from others.

Husserl seems to rely not so much on the description of the crucial meeting as on the exemplifications. He points to assertions that are apt to cause such meetings if grasped in their exact meaning. Of such examples he offers us many: “allgemein gilt für beliebige Klassentermini A, B, C, dass, wenn alle A B und alle B C sind, auch alle A C sind”; “Die drei Höhen eines Dreieckes schneiden sich in einem Punkte”; “Zwei kontradiktorische Sätze sind nicht beide wahr”; and others referred to by names such as *der Bernoullische Schluss von n auf n+1*. A list of these examples, together with a

list of examples of assertions that should not cause the crucial happening—let us say, “One cannot at the same time believe and not believe in the same proposition,” and others—might furnish a kind of test similar to certain color tests.

The appeal to examples that actualize the meeting as a happening is based on the assumption that they are definitively established and that their exact meaning can be communicated to the reader. If the reader does not grasp the exact meaning, but believes he does, and therefore also believes he experiences the crucial meeting, he may be misled permanently. He will try to fix his experience in his memory and use it as a standard. He will use it in judging future assertions, thus perverting whatever ability he once had to discern knowledge of the strictest kind from that of the less strict.

Even if he grasps the exact meaning and gets the *Sachverhalt wirklich vor Augen*, this will happen as a matter of fact, as “eine Tatsache, d. i. ein zeitlich Bestimmtes” (Husserl 1913: 1:76). That it happens under certain conditions would constitute *eine reale Notwendigkeit*, not as a strict law in the sense of Husserl. It is not contradictory to suppose that such a meeting never has been granted to any human being, not even to Husserl himself. I am convinced that the supposition is false, but I may be mistaken in my convictions.

Shall we then, as many of the empirically minded would do, dismiss pure phenomenology and the search for apodictic knowledge, for pure intuitive, ideal knowledge?

Yes and no. To be dismissed is the program of a science of *Wissenschaftslehre* in the space of a system of apodictic knowledge. As soon as a science is said to be science of or about something, there is a radical risk of error; it partakes in the imperfections of the sciences of the real.

Not to be dismissed is the invitation of pure phenomenology to explore the ideal, the infinite domain of forms and structures, including the domain of contradictions. This exploration has considerable autotelic value. Husserl was inspired by the *allgemeine Mannigfaltigkeitslehre*, and it certainly is well suited as a stepping-stone toward free engagement in contemplation of mere possibilities of forms and structures, independent of any purpose to create a *Lehre* or science. The field of exploration will include *the domain of the not real, not pretended real, and not contradictory*.

The term *not contradictory* in the last sentence is preferred to such terms as *evident* or *apodictic*, because of the difficulties of obtaining a concept of evidence unconcerned with the real, and because if we obtain it, it is scarcely discernible from a concept of consistency or noncontradiction. Instead of *ideal*, the term *not real* is used, in order to avoid too many associations with certain conceptions of Platonic idealism. The term *real* is used synonymously with “what is as a matter of fact,” using “a matter of fact” for *eine Tatsache, d. i. ein zeitlich Bestimmtes*.

The domain to be explored is, in part, the same, as far as I can see, as the realm of the ideal as conceived by Husserl. It will include pure logic and pure theory of knowledge insofar as they strictly belong to that realm. All truths, those discovered and those undiscovered, belong to the domain. Truth, in the sense of Husserl, “ist über alle Zeitlichkeit erhoben” (Husserl 1913: 1:77). Further, all falsehoods in the sense of *kontradiktorisches Gegenteil einer Wahrheit* will belong to it. They also are *über alle Zeitlichkeit erhoben*.

Let us return to Husserl as the architect of a system.

Husserl conceives his programmatically pure theory of knowledge and his logic as two systems of truths that rigidly exclude other systems as rightful candidates for the same titles. There is, according to Husserl, if I am not mistaken, *one* pure logic, the one apodictically evident. It is obtained directly from the fountain of strict knowledge, the meetings with the *Sachverhalt* in pure intuition. The same exclusiveness holds for his *pure* theory of knowledge. As a system of assertions expressed in human language, it may show variation owing to homonymy. “Die Bedeutungen” as ideal entities would, however, be identical. A law about the real, according to Husserl, is “eine von unzähligen theoretischen Möglichkeiten einer gewissen, obschon sachlich abgegrenzten Sphäre.” A pure logical law is “die eine und alleinige Wahrheit, die jede andersartige Möglichkeit ausschliesst.”⁶

Now, considering the plurality of ways in which formal logic can be built up as a system, and considering how, because of implicit definitions, the *ideale Bedeutungen* of each formula or proposition are dependent on the system as a totality, we have no strong reason to expect any development toward one particular system as *the* system. The question of whether the different systems of signs are really one, considering their *ideale Bedeutungen*, seems incapable of clear formulation. A third body of propositions and

rules would be needed in order to compare systems of *ideale Bedeutungen*. There is not, however, any definite such body that might be singled out as the “correct” one and used as a basis for the comparison. Consequently, there is no reason to expect one definite result of the comparison.

The situation is similar with regard to the postulate of one definite system of pure theory of knowledge. In the domain of the real, different, mutually inconsistent theories may be equally well confirmed. In the domain of the real, a multiplicity of structures is possible, but they are not necessarily inconsistent or even comparable with one another.

Rigid exclusion of reference to the empirically real does not tend to narrow down the range of different systems.

A system of pure knowledge is as such completely indifferent toward any trait whatsoever of human knowledge, in the sense that at no single place in the system is anything implied concerning the question of whether there exists human knowledge and, if it exists, of what kind it is. No reference is made to mathematics and symbolics as actually developed by mathematicians and logicians. All existent systems as actual systems may contain formidable mistakes or exclusively pure truths. The systems are irrelevant insofar as they are real, that is, insofar as they exist as products of an activity—for example, intentions—of human beings.

Husserl’s criticism of psychologism and his emphasis on the *fundamental* difference between real and ideal are taken for granted in this article. So also is his emphasis on evidence of the apodictic variety as a requirement in pure mathematics and logic. The only difference is that we apply the rigid distinction between real and ideal to any historical system erected, for example, by Husserl, and given the attribute “pure.” Those systems are situated on the human side of the *ewig unüberbrückbares* chasm between real and ideal. They are actually intended systems, products of intentional and ideational activity carried out by Husserl and others in the twentieth century. They will be real, and their properties will have some properties that by definition do not belong to the realm of the ideal. They may or may not represent systems of truth. Human thinking sometimes seems to be, sometimes seems not to be adequate to the tasks in hand. There is no one to tell us when it is adequate and when it is not. The judges are members of our own species. We may actually have a great deal of apodictic knowledge, but it cannot be known (in the strict sense of Husserl) that we have.

ZETETICISM

The conception of pure phenomenology as exploration in the ideal does not exclude its use in research in factual science of science, just as G. F. B. Riemann's fantastic exploration of structures with certain analogies to physical geometry, but totally unconcerned with that geometry as a science of the real, has not excluded its usefulness in factual science. On the contrary, this conception of pure phenomenology makes such use more understandable because it is subsumable under a kind of use exemplified since the dawn of geometry and celestial mechanics as exact sciences.

Pyrrhonism Revisited

The Occasional and the Essential Seeker

Investigators are likely to find what they seek or to reject discoverability, asserting incomprehensibility, or to persist investigating. This is perhaps why also, in regard to what is sought in philosophy, some have claimed to have found truth, others have asserted that it is impossible, and still others go on inquiring. Those who are called Dogmatics believe they have found it, thus Aristotle, Epicurus, the Stoics, and some others. The incomprehensibility was argued by Clitomachus, Carneades, and other Academics; but the sceptics keep on searching.¹

(Sextus Empiricus)

Some of my fellow beings are researchers or, simply, searchers. When asked what they are and what they are doing, they honestly speak about what they are trying to find but have not found. When asked about what they implicitly seem already to presuppose having found, they eagerly try to answer my question straightforwardly and with assurance. They try also to describe *exactly* or in *exact* outline or abstract form what they know for certain that they are honestly trying to find (what they “are” looking for), but they fail in this or they tend to think they fail, or they at least discuss the aspect of possible failure in complete seriousness, using the technique of *pro et contra dicere*. It is as if their findings, even as regards their own intentions, are essentially, and not only pro tempore, conceived as tentative, ad hoc, or

This article was reprinted with permission from *Contemporary Philosophy in Scandinavia*, edited by Raymond E. Olson and Anthony M. Paul (Baltimore: The Johns Hopkins University Press, 1972), 393–493.

as hypothetical findings good only as starting points for more systematic and better-focused search. If I ask for their exact intentions, they might throw up their arms, saying, “Ah, you are a phenomenologist! I wish I had time to do research on my intentions!”

This seemingly evasive behavior is frustrating to me when trying to grasp exactly *where they stand*: I wish to find out what they tacitly, but steadily, assume to be definitively true when asking their questions—in short, their presuppositions. For, of course, they *stand*, but just where? Or perhaps “standing somewhere” is just one possibility among several? *Must* we always stand?

A Dialogue Exemplifying a Pyrrhonist Who Does Not Admit His Pyrrhonism

“Surely you presuppose that this stuff here will not explode,” I said to my contemporary Boyle, the “sceptical chemist,” in his laboratory.

“I am completely convinced,” he answered. “Don’t be afraid, there is nothing I hold more certain than this. There will be no explosion.”

“So, in this experiment you *presuppose* that the stuff will not explode?”

“Of course,” he answered.

“But then you also presuppose the truth of a variety of chemical propositions—all those needed to derive the nonexplosiveness.”

“Do not make me laugh,” he answered. “I am, as you ought to know, contributing to the downfall of several of those “truths.” They have too long been taken for granted. Any of them may tumble and fall, at any time.”

I was completely taken aback. “You are completely convinced that an explosion will not take place as that stuff is mixed, but you nevertheless see no decisive arguments for the truth of any of the premises!”

“No decisive argument for the *truth*—but more than enough for my *trust*, my confidence, insofar as it rests on premises!”

“So you only have probabilities!”

“Probabilities? What are they? Perhaps only a pseudoscientific way of reporting about past regularities.”

He was still smiling, unaware of the serious attack on his character that I now found inevitable. “Robert,” I said, “not a single time in any of our

discussions have you found *decisive* arguments for or against the truth of any proposition. You are a Pyrrhonist or zetetic sceptic! *A seeker!*”

My friend’s face darkened. “What nonsense. In research matters I have not found instances of decisive verification or falsification, but there are innumerable truths I *might* believe in. Pyrrhonism as described by Sextus Empiricus is dead. Short, conclusive refutations abound.”

“Forgive me if my memory fails me, but you seem always to have regard for human fallibility—including your own—stressing the difference between firm convictions and truth, between life and philosophy.”

“I firmly believe that this is *my laboratory*.”

“*Is it true* that it is yours?”

“I have absolutely no reason to doubt it.”

“From *that* you infer the truth?”

“Of course not. Truth does not depend on *my* reasons, or anybody else’s. Why should I make that inference? What need is there for infallibility?”

“Could you not admit that, if pressed, you switch from truth-claims to claims that you are convinced, that you do not have reasons or spare time to doubt, that you do not see why you should be in error in the present case, and so on? Pyrrhonism does not oppose conviction if conviction is defined as an implicit attitude of trust.”

“Anyhow, Pyrrhonism is not *my philosophy*. If I have never found decisive arguments for or against the *truth* of a proposition, this fact is only of biographical interest. From a diary of such failures no philosophy can be inferred.”

“Perhaps not, but could the failures *prevent* you from having a philosophy?”

“Perhaps you trust your philosophy, but do not affirm its truth?”²

Here I shall leave my imaginary debate with a sceptical friend. It exemplifies a frequent kind of debate with the not very numerous people whom I would class as “Pyrrhonic in their life and philosophy” but who resent and resist this label. This resistance I find laudable (“why labels?”), but perhaps the resentment is only a reflection of the low quality of descriptions of Pyrrhonism in textbooks. The arguments of the resisters, if carried far enough in long discussions, sometimes only strengthen my belief that I have found Pyrrhonists in the sense of seekers—zetetics. *There are consistent Pyrrhonists*. Looking back, I would tentatively class myself as one between

about 1952 and 1962. Now I find it difficult to decide what I am, or to rediscover the question.

The Pyrrhonist May Be Strongly Attracted to Certain (Dogmatic) Philosophies

The arguments so far published against Pyrrhonism as a philosophy are weak. My motivation in writing this article is simple: there are Pyrrhonists, and they had better come out into the open. The refutations are rather conventional, and for the most part do not reach Pyrrhonism as described by Sextus Empiricus. In no instance are they decisive. Furthermore, being a Pyrrhonist does not exclude having strong philosophical affiliations of other kinds. In antiquity, Pyrrhonists were close to Heraclitus. Pyrrhonists are “seekers,” and in philosophy this implies prolonged working, however tentatively, within definite conceptual frames.

In this short article, I shall introduce some definitions and postulates of Pyrrhonism for the sake of argument:

1. Pyrrhonic philosophy, maximally condensed: decisive arguments are worth looking for, but there seems to be no decisive argument pro or contra the truth of any proposition!
2. A philosophy does not need to contain any truth-claim.
3. True means “that it is so.”
4. I only know that p if “ p ” is true, that is, if it *is* such that p . “I know that p , but p may be false” is not an acceptable position; the claim to know excludes the admission of the *possibility* of failure.³

Some of these sentences admit rather different interpretations. Somewhat different systems result from the selection of different definite sets of interpretations.

“No Decisive Arguments,” the Core of Pyrrhonism, Is an Exclamation, Not a Proposition

Sentence (1), expressing the core of Pyrrhonic philosophy, has the form of a pronouncement, not an assertion. In this, Pyrrhonism may resemble the

philosophy of Socrates, Kierkegaard, and the early Wittgenstein and differ from that of Spinoza or any other philosopher who takes a set of propositions with a truth-claim adequately and basically to express his philosophy. In this respect, Pyrrhonic philosophy, together with certain forms of Buddhist and Western philosophies, is to be classified as nonpropositional.

In adherence to the terminology of Sextus Empiricus, the term *pronouncement* is used when characterizing “sceptical utterances.” The term *exclamations* also might be used.⁴ They signify primarily the Pyrrhonist’s state of mind when confronting the dogmatic in debate.⁵ Secondly, they signify a basic existential attitude toward conceptual thinking. It is an attitude that cannot adequately be expressed by a set of propositions with truth-claim,⁶ but this does not imply that the Pyrrhonists cannot find each other and communicate. Everyday use of language does only marginally *require* pure conceptual thinking, and those engaged in conceptual thinking may have a variety of attitudes toward their own activity. In the long run, the attitudes interfere with the activity, transforming it into something it was not before. This takes place in the maturing sceptic, according to Sextus.

The sceptical exclamations, in Sextus’s terminology, are utterances indicative of something quasi-permanent, a disposition acquired through prolonged development. At this point Pyrrhonic biographies are relevant: one can begin to understand the historical background of the Pyrrhonist’s existential attitude. To the biographies belong the seeking and not finding, the frustrated primary need for a total view or at least a life philosophy with evidently true premises. Then comes the peace of mind in spite of not finding linked, characteristically, to a continuing search. The peace is already there, but human beings (like rats and some other mammals) seem also to engage in seeking as an autotelic activity.

As a classification unit in philosophy, Pyrrhonism is an ideal-typical construction that includes systematized attitudes toward every position in logic, methodology, ontology, epistemology, and other branches of philosophy; and one of ad hoc *epoché* as regards truth, reflecting a more or less complicated *pro et contra* argumentation, depending upon the current beliefs of dogmatists.

Superficial critics have charged Sextus Empiricus with repetitiousness and unnecessary argumentation, such as against *p* when *p* implies *q*, although he has already argued against *q*. Clearly, though, Sextus does not adhere to any definite organon of inference and implication, and, in princi-

ple, he has to visit every corner of every dogmatic philosophy. He cannot eliminate any of them with generalities as a Dogmatic sceptic or “Academician” might do. Moreover, just as clearly, a systematic Pyrrhonic exposition contains arguments in favor of each dogmatic philosophy. To every dogmatic con-argument, at least one Pyrrhonic pro-argument will correspond. Only at a distance has Pyrrhonism a negativist coloration.

According to the Pyrrhonist, adequate expositions of arguments do not add up to a decision of “true” or a decision of “false.” However, because new arguments appear from time to time among dogmatists as well as among Pyrrhonic seekers, and because memory is fallible, no exposition can be classified as “authorized.”

The exposition of argumentations on all philosophical subjects *and* the pronouncement of a general lack of decisive arguments *and*, perhaps, the pronouncement of the “sceptical way” (*agogé*) as one that leads to happiness, characterize Pyrrhonism. I say “perhaps” because one might wish to take the latter pronouncement as part of an inducement to learn about Pyrrhonism rather than as part of it. Sextus tends to the latter view in his famous genetic definition.

If we exclude Pyrrhonism as a philosophy, we shall have to exclude a long list of philosophies that traditionally are conceived to be such, and that fail only to satisfy the arbitrary postulate that a philosophy must contain at least one proposition claimed to be definitely and definitively true.

Even if we exclude Pyrrhonism as a philosophy, however, that does not imply that the Pyrrhonist is not a philosopher. A philosopher may be always “on the way” (emergent, *geworfen*) and may therefore transcend any classification. The Pyrrhonist is always on the way when working out and testing positions, looking for one that will satisfy the criteria of truth, or criteria of these criteria, or questions of still higher metalevels. The way in which he is “on the way” characterizes him just as deeply and consistently as Kantianism may characterize a nonsceptical personality.

Pyrrhonists Incline Toward Absolutistic Concepts of Truth, but Not Toward Absolutistic Requirements of Grounds for Action

From the point of view of ordinary language, it may be asked whether the Pyrrhonist does not impose *pointless* requirements of decisiveness. Does he

really have any idea of what he requires? Could he specify kinds of evidence that, if at hand, would show the truth of a proposition? If the requirements he poses are never realized, why pose them anyway?

The answer to this seems to be that there are different kinds of decisiveness. If I have a choice between *A* and *B*, I may *decide* to choose *A* on grounds different from those of believing in certain truths. The Pyrrhonist may be a rapid chooser, known for his trusting and benevolent attitude, but he *does* have ideas about truth that are such that no one is *guaranteed* to find it even after a long, laborious search or series of deep intuitions. The idea of truth is important to him, and he does not give it up easily. He does not say, “Well, I did not find a single argument decisive all last year, so why not just take at least 5 percent probability to be decisive this year?” Nor does he predict with certainty that the requirements will *never* be realized. Nor does he pretend that his idea of truth amounts to a definite concept of truth.⁷

One crucial point is this: he finds arguments *not good enough* so far. Charged with the contention that he poses extravagant requirements, he neither denies nor admits the charge but listens to the arguments for the contention. They have so far been vaguely circular: the requirements “must” somehow be too severe because there are hardly any arguments that satisfy them. If one eats five cakes, however, and finds that *all* taste bad, this does not make the decision “bad” pointless. Even if one cannot define clearly what is lacking in flavor, it makes sense to refuse to eat them and to wait for cake number 6—as long as one is not overly hungry. If number 6 tastes bad but one eats it, one has lowered the requirements not of goodness but of acceptance. The sceptic feels that he might accept an argument as pragmatically conclusive, deciding to act upon it, but not necessarily as decisive for *truth*.

Does the Pyrrhonist really retain an absolutistic concept of truth that is artificially separated from concepts of validity, evidence, verification, reasonableness, and tenability?

There are certain reasons to suppose that this is the case. According to Sextus Empiricus, Pyrrhonism does not exclude trust and confidence. Is this not, then, to believe in truths, at least in an unsophisticated way?

To believe strongly and consistently that such and such, to be confident and trust that such and such, seems somehow to be consistent, accord-

ing to Pyrrhonism, with an attitude of *epoché* toward the truth of such and such.

The exclamation “There are no decisive arguments for or against the truth of any proposition!” refers also to propositions of the kind “A is more probable than non-A.” Otherwise it would be probabilism, not Pyrrhonism. The attitude of trust and confidence cannot therefore be the result of attributing a higher probability to A than to non-A, or vice versa.

One would expect that lack of decisive arguments for or against truth would diminish decisive action and increase mistrust, lack of confidence, vacillation, and doubt. According to Pyrrhonism, this is not necessary; and I think it *is* a removal of the notion of truth from certain other notions that makes decisiveness in action compatible with *isosthenia*.

First, “x is true” is taken in Pyrrhonism to be synonymous with “it is the case that x”—an ontological notion in principle separated from any process of verification or falsification. Second, the claim “to know that x” is emphatically identified with a certain kind of claim of incorrigibility: “I know that x, but possibly x is false” and “it is known that x, but possibly it is not the case that x” are rejected. “x is possibly false, therefore I do not know that x” is accepted. The Pyrrhonist trusts that the claim “x is true” is made with consciousness of its implied postulate of incorrigibility.⁸

This *awareness* of incorrigibility separates Pyrrhonic use (and absence of use) of the term *true* from that of everyday life. It makes it understandable that terms with explicit reference to belief attitudes are preferred: “I believe that x is true,” “I believe that x is the case,” “I feel confident that x,” “I trust that x.”

Even the following expressions might well be used: “I trust that x is true,” “I am confident that x is true,” “I am convinced that x is true.” These expressions would be used *angelikos*, expressive of one’s mind. Thus, one would not blindly accept inferences of these kinds:

Premise: I am confident that x is true.

Conclusion: x is true.

Premise: I am convinced that x is the case.

Conclusion: x is the case.

The Pyrrhonist Is Open in Debates About His Own Presuppositions

According to Aristotle, true statements are statements that say about that which is the case (*esti*) that it is the case, and false statements are those that say about that which is not the case that it is the case. If it is the case that *p*, it *cannot* also be the case that not-*p*.

Suppose a person who is considered a Pyrrhonist is entangled in a discussion on the notion of truth and ends up adhering to a definitely absolutist, nonpragmatic, nonvoluntaristic concept of truth such as that introduced by Aristotle. His stand may then be expressed by propositions with truth-claim, and he would presumably accept as decisive certain pro-arguments for the truth of propositions—for example, “What follows is an adequate definition of truth. . . .”

However, such a development from the Pyrrhonic to the dogmatic posture is most surprising, considering the confusing controversies about truth among dogmatists. What a blind will to believe must be required for someone to settle down with any *definitive* conclusions in this foggy field!

In the mid-1930s there was a strong belief that Alfred Tarski⁹ had given an adequate definition of truth and solved an old problem, but subsequent discussion has left the matter in the air. Exactly *what* does Tarski solve? No clear answer has been given. His definition is said to be adequate, but it is admitted that one requirement of adequacy is some sort of agreement with ordinary use. There is, however, no agreement as to how one decides which use is ordinary. Even if the Pyrrhonist must be expected to interest himself vividly in the possibility that he somehow presupposes a nonpragmatic, absolutist notion of truth, his very openness to various approaches in contemporary discussion has so far frustrated his efforts to find decisive arguments.

In general, the Pyrrhonist today, perhaps more than at the time of Sextus Empiricus, will stress an argument against dogmatists who say that the very attitudes and the questions involved in ordinary debate *presuppose* the acceptance of certain propositions *as true* and therefore presuppose at least one decisive argument. The trend of increased belief in transcendental philosophy has made the maxim “There *must* be fundamental presuppositions!” more influential. When concrete instances are offered, however,

they seem to depend on specific approaches in the philosophy of language and epistemology that are controversial, since they lack decisive empirical and intuitive support. At best, they are research programs. Therefore, I do not see how the Pyrrhonist could easily be converted into a dogmatist by prolonged discussions of epistemological presuppositions. Quite the contrary: discussions of such presuppositions tend to promote scepticism.

Furthermore, it is a long road from the discovery and clarification of a presupposition to its acceptance in the form of a true proposition. The form of rule, postulate, norm, or the like is more likely to be adequate. The Pyrrhonist, though, is still without truth-claims.

A Whole Doctrine or Philosophy Is Postulational if There Is at Least One Postulate at Its Foundation

In general, if the verification of a body of beliefs presupposes the acceptance of at least one rule or postulate among a group of conflicting ones, the whole body of propositions corresponding to the beliefs acquires postulational or regulative status. At best, our conclusion will be of the form “The propositions are true if the postulate or rule is accepted.” From this alone, “The propositions are true” does not follow.

No Proposition Is Neutral Toward a System: Is Grass Really Green?

We now arrive at the crucial point of this article: the relevance of systems to Pyrrhonism. Among professional philosophers today there are of course many attitudes toward philosophical systems. My own point of view (stated elsewhere) is highly positive, because I consider the autonomy of the sciences and that of so-called common sense to be an illusion. I understand a full systematic philosophy to be a synthesis of a logic, a methodology, an ontology, an epistemology, a philosophy of history, an axiology, and (normative) ethics. To *publish* in all these fields is of course a hazardous undertaking, but I take it to be normal among philosophers to have or *seek* such a synthesis. A philosophy in this sense interacts with one’s way of seeing and experiencing life, the universe, and oneself.

The distinction between “in itself” and “in something else” (*in se, in*

alio) is fundamental in Spinoza's system.¹⁰ Substance, cause, freedom, wisdom, joy, passion, goodness, perfection, slavery, democracy—all are conceived in terms of distinction. It colors the perception of everything and therefore affects the meaning of any proposition in the system. A follower of Spinoza is therefore more easily exposed to scepticism: it is enough to doubt the meaningfulness of the fundamental distinction. Belief in systems favors the emergence of scepticism.

Let us for a moment return to the opening quotation from Sextus Empiricus. Sceptics and Dogmatists are there defined *only* in relation to "what is sought in philosophy." If questions of science or common sense were independent of philosophical questions, therefore, Pyrrhonism would be a partial scepticism, on a par with religious or historical scepticism. The idea of systems in which every question is placed in a conceptual framework, and of the explicitness of the fundamental assumptions and postulates that are therefore required, enlarges partial scepticism into total scepticism.

I do not see that *any proposition whatsoever* can be completely neutral toward differences in systems, and this makes a genuine seeker of a system normally indecisive with regard to the truth-value of any proposition.

Exceptions are platitudes such as "grass is green"—expressive, perhaps, of the kind of dumbness, sluggishness, or conventionality of perception of which painters and other artists try more or less in vain to cure us. If taken seriously as propositions, such formulas become nonneutral toward conceptual frameworks and therefore toward differences in philosophical systems.

Sextus's stock example is not "grass is green" but "honey is sweet." It is his contention, as I understand him, that efforts to conceptualize this utterance soon meet the formidable question of whether the sweetness is in the honey or not.¹¹ The problem area of secondary and tertiary qualities is relevant, and here evidence is scarce and meaning obscure.

When a person affirms that he is a logical empiricist, a liberal, and an admirer of Beckett, he does not mean to say that in his mind there is every second a recognizable manifestation of logical empiricism, liberalism, and admiration of Beckett. Most people would agree to this. On the other hand, if somebody tentatively affirms that he might be a philosophic sceptic, there tends to be an immediate outcry: insincere! pointless! inconsistent!, or the requirement is laid down that he must then doubt *everything at*

once—not assume, presume, trust, or believe anything even for a split second. (See: “Now you are just eating fish. But if, as you say, you are an admirer of Beckett’s, *turn on immediately* and stop doing anything else!”) What is characteristic of a Pyrrhonist, however, is a disposition, a structure of traits that manifests itself in the long run, not a split-second reaction. This colors, for example, his assumptions; these acquire the character of posits, not assertions with truth-claim. To assess a truth-claim that involves a whole system, the Pyrrhonist must let himself sink deeply into it. This requires time and an openness that is inconsistent with a continuous flow of doubt, vacillation, and counterargumentation running through his mind. One may hear a dogmatist say, “He is supposed to be a sceptic, but he has been arguing enthusiastically in favor of Heraclitus all year!” It is of course suspicious to act like this for a whole year. The long time it takes to manifest a sceptical pattern of thought makes it always relevant to ask, as colleagues of sceptics have done since Pyrrho, Is he not really a Heraclitean, or an empiricist, or . . . ? However, trying to balance argument *pro et con* every minute is bad research heuristic. Nothing decisive can be inferred from temporary imbalances.

Tentative Conclusions

1. Pyrrhonism as a personal philosophy is neither inconsistent nor psychologically impossible.
2. A Pyrrhonist undertaking a systematic inquiry assumes, presupposes, and uses postulates, but he does not assume the truth of any proposition. He posits, takes for granted until further notice, and acts upon “natural, spontaneous beliefs,” but he does not affirm, or feel inclined to affirm, any truths. Among his spontaneous beliefs are some on the metalevel concerning notions of truth.
3. He does not “resist” what seems obvious at the moment, but he finds it difficult to decide for or against as soon as an utterance is made more precise by means of a set of conceptual distinctions.
4. One may speak of a Pyrrhonic attitude in a psychological sense, but it is not to be identified with doubt. There is also a searching *Einstellung*, way of being, of existential import, which as a personal philosophy tran-

scends the mere psychological, just as does Kantianism or any other philosophy that a person “has.”

5. A philosophy, insofar as it tends toward a total view, colors everything. Therefore, indecision with regard to its truth is an indecision as to truth-value in general. One kind of genesis of a Pyrrhonist may therefore be that of a seeker who, after having delved deeply into two different possibilities of total views, finds arguments for or against in part indecisive, in part irrelevant.

Trust and Confidence in the Absence of Strict Knowledge and Truth: An Answer to Nicholas Rescher's Critical Reappraisal of Scepticism

Distinction Between the Academic and the Pyrrhonic Sceptic

What is scepticism and what are the main arguments for and against it? As happens so often, we have to admit that it depends in part on what is meant by the word. The history of various usages of the word, and closely corresponding words in some other languages, goes back more than 2,000 years. An argument against "scepticism" in one sense may be irrelevant, or even a pro-argument, in relation to "scepticism" in another.

I do not believe that this is a trivial point. Even today, one cannot say that the scepticism discussion is a net discussion—*net* used as in "net income," that is, when misunderstandings owing to differences of terminology are cleared away. The Greek verb *sképtomai* (to look about, look carefully at, view, examine) was used when the expression "medical scepticism" was coined—the medical tradition in which Hippocrates is the greatest name—stressing empirical observation and abstention from the application of philosophical and mythological theories. Make experience and application of carefully tested procedures your guide! Never *rely* on a theory!

A distinction worked out in detail by the greatest author on scepticism, Sextus Empiricus, plays a crucial role in what follows in this article. He distinguished between the view that, strictly speaking, knowledge and truth cannot be found, and the view that, strictly speaking, so far no piece of knowledge or truth has been found, but some people are still looking for it. Philosophers claiming to have found truth (or at least one truth) he calls Academic and those who think they have not found any, but still are on the

This article was written in 1994. It is being published here for the first time.

lookout, he calls Pyrrhonic after the philosopher Pyrrho. Clearly, Sextus's usage is rather different from what people today generally associate with the word *sceptic*.

In the vernacular a sceptic tends to be one who is prone to turn down proposals to act or to value something positively. He is a doubter, embracing doubt as a general attitude, or in a special case. To appreciate scepticism as a cluster of traditions in the history of philosophy, one must have some interest in claims and concepts of truth and knowledge.

A Story About the Problems of Using the Terms *Truth and Knowledge*

We prepare for a voyage across water, but of course without knowledge about the weather we shall face. At best, we have the assurances of a meteorologist that our prospects are excellent. Experts have tested our little boat, but they make it clear that they take no responsibility. They tell us that every scientific and technical detail has been carefully considered—all is in order, but anything can happen anyhow. We have remote possibilities. For example, the day we set sail, the Atlantic could disappear. The game has had an effect that we should have anticipated: we do not use the term *knowledge* any longer. We have a lot of confidence in our undertaking, but remote possibilities of error are regarded as sufficient reason not to use the knowledge and truth terminology. For example, we don't like to say "Yes, I know that . . . , but I may be wrong" or "Sure, we know that . . . , but it may be a mistake."

If something is known, it *is* the case, it *is* true, it *is* so. It is nonsense to make any further inquiry. If we know we are not yet on the water but on land, it is true that we are on land; it is the case that we are on land, "it *is* so"—as many people who are not philosophers would say.¹ If we know something, we can *guarantee* that it is so.

We *trust* that we will not meet terrible weather, overwhelming waves, a typhoon where there never has been a typhoon, a gigantic whale carrying us away in a wrong direction, asking us to be kind to its smaller relatives. We are not suspicious, not doubters, nor dogmatists. We have confidence, but no knowledge.

The Logic of Knowledge Leads to Scepticism

Let me first admit that I belong to the group that has had trouble using the terms *knowledge* and *truth*. In what follows I'll talk more about us. We all *tend* to, or have *tended* to, avoid expressions such as "I know that" and "It is known that." We have even tended to avoid their use in situations in which most people would find it ridiculous or completely unfounded not to use those expressions. I have done this, for example, in discussions with professors of philosophy. I mention but do not use the terms. On the metalevel—where we shall now talk about whether we ever know anything in the strict sense—if we know something, then it is true, and we know that it is true. Sometimes we are asked, Don't you know so and so? by people who use the term very loosely in ways we do not like. Even if the possibility of error is clear, it is socially warranted to say "Yes, I know." In court, as a witness, it may even be ethically wrong to say "No, I don't *know* so" or "Strictly speaking, I don't know, but I am confident it is so." Broader usages are the normal or general way of speaking. That something turns out to be a mistake is often taken very lightly. One does not risk one's reputation by using the term loosely.

You see, we can easily get into trouble in our community if we stick to our preferred use of such expressions as "I know that . . . ," "It is true that . . . ," "What do you advise us to do?" Let me insert here something about the logic of knowledge as exposed in Nicholas Rescher's superbly clear and well-documented book *Scepticism: A Critical Reappraisal* (1980). I have a special reason to go into this book in detail because it is generously dedicated to me—"For (though also against) Arne Naess." Rescher lists five "patently valid principles of the 'logic' of knowledge." Numbers 1 and 5 may be formulated thus, with the letter *p* used for an assertion.

1. If *p* is a piece of knowledge, *p* is true.
5. If *p* is a piece of knowledge, then there cannot be any assertion *q* such that if *q* is true then *p* is false.

The first principle Rescher (1980: 251) calls The Veracity of Knowledge; the fifth, *very important principle*, The Irrefutability of Knowledge. In short, if something is known, it is true, it is simply the case, and therefore it cannot possibly be refuted.

I agree with Rescher that those two if-then principles are “patently valid principles” of the logic of knowledge when the term *knowledge* is taken in a definite, strict sense, and not in a loose, broad sense. In what follows I refer to Rescher’s sense as “the strict sense of knowledge,” and when I write *knowledge*, *to know*, and so on, I always refer to the strict sense, if I do not explicitly say that I refer to a loose sense.

Suppose now that *A* is the name of a person. By “*A* is a mild sceptic” and “*A* favors mild, personal scepticism” I mean the same as “*A* thinks that he or she does not know anything in the strict sense.”

Some well-informed people will say that the scepticism referred to is only a detail of an autobiography and not a philosophy of scepticism. I disagree: it may be part of a philosophy; the person may have studied the philosophers’ proposals of what certainly are pieces of knowledge, and may have argued against the proposals as unconvincing. They have not helped *A* to find a piece of knowledge. He disagrees with the philosophers studied in the sense that, after some argumentation in relation to each proposal that an assertion *p* is a piece of knowledge, he concludes that “I do not find *p* to be a piece of knowledge.” This is plainly a part of philosophical discussion—at least as conceived by Rescher in his book.

Rescher generously ends his book with this positive judgment:

Much essential clarification of the nature of knowledge can only be attained by analyzing how the key arguments deployed by the sceptic fail in the final analysis to establish his governing conclusion of the illegitimacy of claims to knowledge.

(Ibid., p. 250)

The unattainability of knowledge is a “dogmatic” thesis of the so-called Academic sceptic, according to Sextus Empiricus (*Pyrrhon.*, 1,1,1). Rescher mentions Sextus six times in his book, and nowhere does he intimate that Sextus stands for an inferior or nonphilosophical scepticism. As I interpret Rescher’s point of view, it is compatible with that of Sextus, as I interpret the latter. It seems, however, that Rescher does not agree. Interpretation is a delicate affair and I find it indispensable to quote Rescher on the matter:

The sceptic prefers to characterize his opponents as *dogmatists*. But the use of this pejorative term distorts the issue. A dogmatist is not simply someone who claims to *know* something, but one who closes his mind on the issue—

who refuses to entertain objections and heed difficulties. Accordingly, we have adopted the term *cognitivist* to designate the sceptic's opponent. The cognitivist crosses the threshold into dogmatism only if he maintains that once we claim knowledge we "close the book" on the matter and take the stance that under no circumstances or conditions would we ever retract such a claim. The position to be developed here does not take this dogmatic stance. It propounds a fallibilist theory of factual knowledge which recognizes that in principle a perfectly valid claim to knowledge may have to be withdrawn in the light of "unforeseen developments."

(Ibid., p. 3)

It is, as I see it, of crucial importance how we understand the withdrawal of the claim to know that such and such. Is it not an admission that we did *not* know? The *claim* may have been amply justified, but we did not know what we thought we knew. Principle 5 implies that there could not be valid arguments for a withdrawal if we *really* knew.

The Greek norm and adjective *dogmatikói* does not imply closedness of mind or refusal to consider objections. A "dogma" is in most contexts "an opinion," "a thesis," "a doctrine." Sextus mentions Aristotle as an example of a dogmatic. For Sextus it is enough that they claim to have found and established at least one truth in a strict sense of the Rescher kind. If fallibilism is taken to refer to all assertions, Sextus is a fallibilist. (Tautologies are not counted because if a sentence asserts nothing—for example, "If it is raining, it is raining"—I don't conceive it to be true or false or express knowledge.)

As I shall discuss later in detail, Sextus's zetetic sceptic may use sentences of the kind "I know that such and such" and "It is true that such and such," using the terms loosely and according to social conventions. The *claim* to know may be said to be valid according to the standards of the community. That is, one is justified in claiming that one knows such and such. Calling an assertion made by myself a truth or knowledge claim, I assert that something is true or a piece of knowledge, but saying that somebody else claims such and such to be true or a piece of knowledge does not imply that I agree. That I find the claim justifiable does not imply that I agree. "Under the circumstances I find Mr. A's claim that such and such is the case fully justifiable. No information was available that should make him doubtful." I have the feeling that Rescher does not always distinguish truths and truth-claims as consistently as I think is necessary.

Sextus discusses mathematics and logic at length. It is not necessary, I

think, to go into that much detail here. It may suffice to say that the areas of assertion covered by a zetetic sceptic include every assertion that is not a tautology.

If a claim to knowledge “may *have to* be withdrawn”—for example, that a certain gun at a certain moment was unloaded—I think it amounts to a falsification. That is, what was claimed to be a piece of knowledge was not such a piece, but a mistake. It seems that Rescher here is very, very close to the opinion that there is no empirical knowledge, no assertion that fulfills principle 5. “Unforeseen developments” implies unforeseen refutability. Or one has to show that in relation to certain empirical assertions, there can be no unforeseen developments, no new discoveries, no possible sources of misunderstanding or error. How are we able to do that?

In short, it seems that Rescher’s cognitive position is compatible with Sextus’s zetetic scepticism, and therefore also with my own scepticism: we have no guarantees in the strict sense as to what will happen in the next moment. This also applies, of course, to what we will think in the next moment. It touches every belief we have about the past. In this way the *openness of the mind* covers the past. Such a view is apt to influence our total view, if we can be said to have any: our view of the cosmos, ourselves, our duties, our lifestyle priorities, are all affected. Perhaps only mildly?

What about the highly professional arguments against scepticism that we find in Rescher’s book? I have evidently not delved into the matter as carefully as it deserves.

A crucial concept in Rescher’s system is that of a language community. To withdraw from the community is a serious thing, but to me it is not clear how Rescher makes a withdrawal decisive in his “critical appraisal of scepticism.”

Let me quote from my book what to Rescher (1980: 74) seems “quite wrong”:

If I hesitate in, or abstain from, saying “I know it” because I see (am sure I see) a *remote possibility* of being wrong, this does not necessarily violate any explicit or implicit rules of ordinary language. It may be a symptom of overcautiousness, hypochondria, hyperactivity of the imagination, or inability to square up to some formidable responsibility, but . . . I am still a member of my *language* community.

(Naess 1968: 124 [SWAN II])

The reason for Rescher's disagreement resembles those of proponents of tyrannical *Gleichshaltung*. He writes, "Nevertheless, this seems quite wrong. For in the specific regard at issue, I have (to this extent) *withdrawn* from the community in abandoning the standards that govern its practices. To refuse to countenance what *they* call knowledge as *my* 'knowledge' is as serious—and deviant—as to refuse to countenance what *they* call dogs as deserving of this appellation from my variant point of view" (Rescher 1980: 74).

The term *govern* is too strong. There are regulations in the usages of "I know that . . ." but not laws such as gravitation.

In a community of a hundred people all except one might use the expression "I know that . . ." in a certain situation. The one abstains because he or she feels sure of a remote possibility of being mistaken. This person is still a member of the language community. He may add, "I refuse to say that I know because I clearly see a remote possibility that I am mistaken." This remark does make it more obvious why he might feel an outsider, but also that he does belong to the language community. Or perhaps it is here a question of how to define a community. There are differences in tightness of communities, of *Gleichschaltung*. In a fairly open community, one may notice that a certain person uses "I promise" and "I know" much too freely, *but* communication is not seriously disturbed because of that.

That *Knowledge* Is Sometimes Used in a Strict and Sometimes in a Loose Sense Does Not Affect Communication Seriously

Suppose somebody, *B*, comes back to my community, *C*, from a long stay in the Arctic, with an animal, Peter, and suppose other members of *C* refer to it as "the dog Peter." Let us inspect three dialogues within *C*:

I

1. A: Your dog is extraordinarily expressive in the way it salutes people and other dogs.
2. B: Peter is not a dog.
3. A: It *is* a dog.
4. B: It has the following characteristics: . . .

ZETETICISM

5. A: Aha, then I agree. Peter is *not* a dog. It is a wolf.

II

As in (I) except for the following changes:

5.a. A: Then it is a dog according to our terminology in *C*.

6.a. B: It is a wolf according to mine.

7.a. A: At least we agree about the characteristics, but you have left our language community.

8.a. B: If I persist in using my terminology in the matters of dogs and wolves, I suppose we still can communicate.

9.a. A: Sure. You will just add another ambiguity within our language community.

III

As in (I) except for the following changes:

5.b. A: No, I do not think Peter has those characteristics. It has the following: . . .

6.b. B: If that were the case, I agree that Peter would be a dog.

7.b. A: If it had the set of characteristics you mention, I would agree that Peter is not a dog.

I shall try to show that the searching (zetetic) sceptic need not cause more trouble to a linguistic community than Mr. *B* in the community *C*—that is, only very common kinds of trouble; slight trouble because of some divergences regarding vocabulary.

The pressure to conform in opinions and terminology may be heavy in small communities with close personal ties. At least, this is what some of us think was the case in rural Scandinavian communities of the nineteenth century. Today, we favor a more lenient treatment of people with odd vocabularies. Zetetic sceptics, I think, are today accepted as members of their communities. They are not thought by ordinary people to have left their language community. They are understood, perhaps inadequately, as

are many other marginal groups, but sufficiently to keep communication going.

Are there zetetic sceptics among very young people? I came across two or three when I interviewed some 250 people about truth and knowledge. The youngest was only fourteen years old but very clear in his spontaneous answers. He clearly distanced himself from “Academic” sceptics, in the terminology of Sextus. He did not reject the possibility of knowledge and finding truth, but he had never come across any. That the Earth is round he did not find to be an established truth. Nor did he regard the Academic sceptics’ rejection of the possibility of knowledge to be established.

There are, I hope, a few communities that never abstain from using “I know that . . .” because they feel sure of a remote possibility of being mistaken. Sometimes the responsibility for saying “I know that . . .” makes one look for remote possibilities. If the existence of such possibilities seems sure, most people will abstain; some will not. Anyhow, there is no limit such that if remoteness is still greater the *language* community prescribes the use of “I know” or the answer “I know” if one is *asked* “Do you know?”

Innovation in a community is largely dependent on some people taking seriously possibilities that others judge nonexistent or completely negligible. Language functions satisfactorily in allowing us to communicate in spite of extreme personal differences in judging possibilities.

A zetetic sceptic feels sure or unsure about remote possibilities of error in relation to the knowledge claims he has witnessed. He does not deny that he may often be linguistically, or better, socially, justified in accepting such *claims* as legitimate. The social and linguistic *warrant* to use the phrase “I know that . . .” is for him not a sufficient reason actually to use it. When he feels that there are remote possibilities of error, he will, perhaps, use such a phrase only in certain kinds of practically important situations, such as in law courts.

Rescher’s position leans in a decisive way upon differences between remote and near, or unrealistic and realistic, possibilities of being mistaken. In heavy urban traffic the distinction is decisive, but not always in philosophy.

As a believer in the importance of dialogues in assessing scepticism, I invite the reader to inspect some examples.

ZETETICISM

I

A: Sometimes when engaged in painting I long to develop into a Picasso of the twenty-first century.

B: But you know you will not.

A: How do I know? The future is open.

B: You agree that it is only an extremely remote possibility.

A: Yes.

B: Then you know.

A: Really? What process do you refer to?

B: By just adhering to the basic rules of your language community, the laws of rationality, and submission to the facts of life.

A: Usage is richer and the laws of rationality less narrow than you assume! I abstain from using the expression “I know” when I feel there is even an extremely remote possibility of error.

B: I’ll remember your strange abstention. We can continue our excellent communication.

II

1. A: Open the package here. Let us admit, though, that it may in principle contain a bomb that will explode if we do so.

2. B: I know there is no bomb in it.

3. A: But there is a remote or unrealistic possibility. . . .

4. B: Certainly. Therefore I repeat: I *know* there is no bomb in it.

5. A: Under the circumstances you do *not* know—that is, according to my usage.

6. B: You leave our language community if you say you do not know.

7. A: I would not say *you* leave the language community by saying “I know,” but that your talk is a little queer if you say “I know there is no

bomb in the package, but there is an extremely remote and unrealistic possibility that there is a bomb in it.”

III

As in (II) except for the following changes:

4.a. B: No, I do not think there is any possibility, remote or near. If I thought there were, I would not have used the expression “I know,” and I would not have agreed to open the package.

5.a. A: Well, we disagree about possibilities, not about how to use “I know.”

6.a. B: Yes. You have not left our language community.

In the communities I am acquainted with, the position of *A* in dialogues II and III is rather unusual. If a possibility of being mistaken is explicitly admitted, one tends not to say one knows. One does not have an “adequate rational warrant” to combine a claim to know that *p* with a claim to know that not-*p* may be true. One may elaborate upon the remoteness and unrealistic character of the possibility. Nothing is lost from the point of view of (cognitive) communication. The elaboration may have the same effect—to induce *action* according to plan: “the possibility of a bomb seems so remote that we agree to open the package.”

Dialogue III is of a rather common kind in communities with which I am acquainted. Clear consciousness of a possibility of mistake disqualifies the use of “I know . . .,” or: if people believe in a concrete possibility of error, they do not use “I know” except for performative purposes. If you ask how I as a mild sceptic know all this, I will answer with Sextus that this is how it seems to me. I may be in error, but I adapt to my community’s way of talking and therefore do not use the term *seems* all the time.

Consider the case of Paul, who was labeled a zetetic sceptic by members of community *C*. In the local newspaper of *C*, in an obituary, a journalist wrote, among other things:

When hunting, Paul saw all kinds of remote possibilities—what kinds of animals we would encounter, even what kind we actually had shot. It was as if he lived in a vast number of different worlds, and was not very eager to decide which one was ultimately the real one.

ZETETICISM

He did not find it difficult to act. He was not a “dreamer.” However, he clearly did not feel deeply certain about the actual features of the situation in which he acted, or about his own ultimate identity. He did not understand why we were so eager to proclaim that we *knew* this or that, or that such and such was *true*. He seldom was inclined to disagree, because he did not find it important to know the details of what we meant by words like “truth” in our declamations. We agreed that if he clearly saw possibilities of mistake, or believed he saw them, he had better abstain from asserting truth and knowledge. He, on his side, did not find that *we* should abstain when we did not clearly see possibilities of error. He did not criticize our usage.

If Paul thought he (1) saw possibilities of mistakes every time he consciously looked for such possibilities, and (2) often was interested in the elimination of mistakes, and (3) “undogmatically and loosely” uttered things like “Do I know anything?” and “How do I reach truth?” then Paul was a zetetic sceptic. (Compare Sextus *PH* I, section 187, et seq.)

Paul did not enter into “a self-imposed exile” from the language community. He certainly was an odd member of the community *C*, but he communicated well. His vocabulary and use of each word was exceptionally conventional.

The authors of the obituary implicitly hold that if they had felt as Paul did, they would have abstained from making the usual knowledge and truth-claims.

Finally, I shall introduce an odd member of a community *D*. He was a teacher of philosophy. When he died, a student wrote:

When I first met Alastair he was an ardent Christian, insisting that all things in every life situation were colored by his faith, and that color was of reality, not of subjective appearances. “Let us eat dinner together!” had a different meaning for him than for those without his particular faith. Meals were sacred. A glass of wine, even a grain of sand had a particular reality as a creation of God. A moment’s lack of appreciation of this reality was to him a moment of sheer blindness or lack of understanding.

Later, however, his work made him at home in different cultures. He met Christians who seemingly had a different total view in spite of using the same biblical texts as a source. He met Buddhists and people of religious and philosophical faiths that either seemed to imply the existence of different basic presuppositions or implied a denial of the relevance of some of his own. His belief was as firm as ever, but he was shattered in his former assumption that he could defend basic assumptions of his faith in terms of knowledge. Moreover,

because his faith was pervasive, and colored all his assertions, this seemed to him to imply that he could not assert flatly that he *knew* he was right and that those with different total views from his were simply mistaken. So, *he withdrew his claims to knowledge.*

When he died he was still trying to make clear, or at least to make conscious, presuppositions that he only dimly felt he had acted upon in his long life. Once in a seminar somebody exclaimed, "But Alastair, you are a zetetic sceptic!" He seemed slightly embarrassed, but after listening to explanations, he very tentatively agreed. The term *sceptic*, in its modern connotation, he found somewhat misleading, however.

The account of this student exemplifies a zetetic scepticism that perhaps can only be appreciated if we try to incorporate all our assertions into a total view, religious or philosophical. If this is done in such a way as to make the validity of any assertion dependent (but not *only* dependent) on a set of basic principles, we get into the old aporetic or paradoxical area of comparisons of total views. This seems to lead to the zetetic scepticism of Alastair if our personality is integrated to such an extent that consciousness of the dependence of our particular assertions on our total view is never completely lost. We are then beyond the knowledge/ignorance distinction, because of the deepness of premises questioned, and the pervasiveness of implications. Some might (with a smile?) call it bathyscopic agnosticism rather than zetetic scepticism.

Sloppy-Talking Sceptics

Let me come back to the mild ways of the zetetic sceptic—his lack of motivation to change the loose talk among his fellow citizens.

All through Sextus Empiricus's *Outlines of Pyrrhonism*, he suggests that he does not fight for or against definite usages of words. He does not have any special motives in ordinary social life to be more painstaking in his way of talking than other people are. He may use loosely such expressions as "I know that . . .," "it is true that . . .," "evidently," and "of course." He may also make use of all the performative functions of these expressions. Consider this little story:

John has been regarded as a zetetic sceptic, but what about his verbal behavior in a recent law case:

ZETETICISM

John: I know Jack was in bed with stomach trouble and a broken collarbone all that Wednesday, so he could not have murdered James.

A: Is it not at least remotely possible that Jack was in bed only the first half of Wednesday?

John: No, no. That is not possible. The evidence available excludes that possibility. I know he was in bed *all* Wednesday.

In John's next seminar on epistemology, his students complained of a discrepancy between life and teaching. His answer: "I consider myself a close friend of Jack and feel it is my duty to defend him in court. With the evidence at hand I was, I think, fully entitled to use the term *know*. If I had said that I did not really know, this would have been misunderstood. I followed the usages of my community. In regard to the possibilities, I felt that there was no serious practical possibility that I was mistaken. I am known as a friend of Jack's, and if I had said, 'There is a remote possibility I am mistaken,' it would, I think, have been completely misunderstood. Here in this seminar, the dialogue is of quite a different kind. I would here answer very differently from how I answered in court."

The students were still not quite satisfied. John's eagerness in explaining his behavior made them suspicious: "Your explanation is full of assertions, of sentences pretending to be true?" John's answer: "This sounds strange to me. Does eagerness imply pretentiousness of that kind? May I not speak eagerly but adogmatically, in the terminology of Sextus?"

Tentative conclusion: John is a zetetic sceptic. He talks in a manner that makes me trust the honesty of his particular way (Sextus: his *agogé*).

If the dogmatic attitude revealed itself, and *only* revealed itself, in the use of the terms *know* and *truth*, one might—as some have done for years—simply abstain from using them. There are, however, expressions like "it is the case that" and hundreds of others that are in the same class. Ultimately, all simple assertive use of language is involved, including, of course, assertions like "It *is* uncertain that . . ." and "It *is* scarcely a remote possibility that. . . ." The *thoroughly* inquiring way of the zetetic sceptic can be hinted at through dialogues, but one cannot expect a zetetic sceptic to describe it through assertions. The zetetic sceptic may try to convey this by saying that he talks loosely.

If, however, a dogmatist asks him for once to talk very seriously, to be painstakingly precise and describe his exact position in epistemology, what

can he do? Answer, “I am inquiring?” (*zeteitos*). That is a rather vague and loose answer, but the more precise he makes the answer, the more clearly he involves himself in typical “dogmatic” utterances. He is tempted to interpose expressions like “perhaps,” “it seems,” “I think,” and so on, but this implies that he only then reverts to loose talk.

The moderate difficulties of communication between zetetic sceptics and dogmatists are only an instance of the difficulties of different total views. The more strictly total they are, the more difficult is straightforward clarification of the difference. The meaning of every sentence has different colors within the different totalities.

Fortunately, the resulting limitation of communication does not necessarily affect the community. People with different total views *may* have a good time together, talking or not talking. In a society there are “standards that govern its practices. To refuse to countenance what *they* call knowledge as *my* ‘knowledge’ is as serious—and deviant—as to refuse to countenance what *they* call dogs as deserving of this appellation from my variant point of view” (Rescher 1980: 74). If I “choose to be more scrupulous than the language using community,” I enter “[to this extent] into a self-imposed exile from it” (*ibid.*).

It is strange to realize, after more than eighty years of speaking, that I have lived in exile from my community. As far as I can judge, some of my friends have suffered the same kind of exile. However, it does not seem to have been like this—especially not when there is a question of being *more or less* scrupulous, and especially when my fellow beings become aware of my deviation only when we enter philosophical discussion. What in the terminology of Rescher seems to be classed as difference in degrees of scrupulousness, is, in my and Sextus’s terminology, classed as difference in degrees of looseness.

Do Zetetic Sceptics Ask for Guarantees?

Do the zetetic sceptics ask for the impossible? It seems that Rescher may have this suspicion (see Rescher 1980: 75, 226). Consider, however, the following dialogue:

ZETETICISM

A: You say you don't know that there is no bomb in the package because you see a remote possibility that there is. What if you did not see any such possibility?

B: Then I might say "I know."

A: Do you always see possibilities for error?

B: Not *immediately*, but I have upon reflection always seen such possibilities. This probably has contributed to my tendency to avoid "I know," even if a discussion is not serious and responsibilities not heavy. Sometimes, though, I spontaneously say "I know!" "Certainly!" "True!" I do not fight against spontaneous utterances. I speak loosely.

A: Then you are occasionally and momentarily a dogmatist!

B: Ultimately, what counts is what I mean, not what sounds I make. I retreat from the use of those terms if asked, "Do you really, seriously speaking, *know*?" I retreat because I am made to consider possibilities of mistakes. Do not philosophical views rely on reflection?

A: Are you still on the lookout for positions that you cannot see could possibly be mistaken?

B: Yes, but it is no longer a question of life and death to find such possibilities. It is just one of my interests. Take, for example, my interest in logic and formal systems. Are they true in some sense? I am not worried, however. I have reached a satisfactory level of *ataraxia*, peace of mind. My scepticism is of a joyful rather than a sad variety.

A: You are looking for the impossible. There can be no views that are not possibly mistaken.

B: That seems to be the position of the *Academic* sceptics. Maybe they are right, I don't know. I have not seen a convincing argument.

A: You require the impossible when you refrain from using the expression "I know that. . . ."

B: What you say is interesting, but I do not know of any such requirement. If we meet again next year, perhaps I will, after due reflection, use that ex-

pression. I may next year have convictions that, in spite of long reflection, I cannot possibly see might be false. Perhaps I will end up as a Heraclitean. . . . Some zetetic sceptics do.

A: What you admit now is that you have no philosophy, only tentative autobiographical opinions.

B: If you insist! Why, though, do philosophers argue against me? What you say seems to imply that a philosophy *must* be dogmatic. You may be right, but I think of myself as an undogmatic philosopher.

The Rational Warrant to Say “I Do Not Know” or “Do I Know?”

Suppose there is a *social* warrant for asserting “I know . . .” in a particular situation. It seems that Rescher assumes that this implies that there is no *rational* warrant in this situation for saying “I do not know.” Let us look at the following dialogue:

A: I know the gun is not loaded.

B: Your responsibility is heavy. Check it!

A: Specify the possibilities that this gun at this moment is loaded!

B: I cannot at the moment see any definite possibility.

A: Then you know it is not loaded.

B: I am sure that it is not loaded, but we have not checked it for ten minutes. I don't *know* that it is unloaded at this moment.

A: I'll try it out. (Bang!) Sorry. I'll get hold of an ambulance and all will be well, I hope.

Even in this case, in which no definite source of error is seen and the possibility of being mistaken is conceived as remote, I would say that we have a rational warrant for asserting “I do not know . . .,” using the word in a strict sense. Otherwise, I would in my opinion here and now implicitly subscribe to a concept of petty rationality conducive to conformity or *Gleichschaltung*. Respect for reason seems to me incompatible with the de-

nial that remote possibilities, even astronomically remote possibilities, may be relevant for knowledge claims. Social and cultural diversity rests not only on tolerance of wide differences of opinion, but often on promoting them.

Differences of opinion regarding possibilities are in practical matters crucial. What in one group is an extremely remote possibility is a very near one in other groups. Usually only a minority is aware of definite possibilities of error because this awareness presupposes lively interest and a surplus of energy. The sloppy textbook and administrative use of "It is known that . . .," "Today we know that . . .," and similar persuasive expressions has the potentially destructive effect of making people submissive. This may happen in spite of occasional warnings that even scientific knowledge is uncertain. Important alternatives in individual, social, and political life are neglected because of stiffening terminology.

Perhaps the expression "socially warranted claim to know" is better than "rationally warranted claim" because of a fatal tendency to equate rationality with what is considered "reasonable" within a group of opinion leaders. I think it worthwhile to try to save the term from such a debasement.

Rescher maintains a strange view about my view of knowledge claims:

In Naess' view, our knowledge claims are inherently flawed, because—as he sees it—the achievement of knowledge requires the prior removal of *both sorts* of possibilities, as well as the merely proximate ones. This, of course, leads straightaway to the sceptical conclusion that the attainment of knowledge becomes in principle infeasible. Thus Naess writes:

[The] incorrigibility claims [inherent in our pretensions to knowledge] are essentially based on convictions that in the particular case there could not be any source of error, both in the usual sense of "source of error worth mentioning" *and in the sense of no source of error even of the more remote kinds that we neglect in daily life.*

(Rescher 1980: 88)

In my view, there are socially unjustifiable and socially justifiable knowledge claims. To withdraw a claim, however, means to acknowledge that we did not know what we claimed to know, and this frank admission is completely independent from the remoteness of the possibility that the claim will turn out to be a mistake. "The accused tested the gun repeatedly. He

was fully justified in saying that he knew it was unloaded, but, alas, he was wrong. What *seemed* impossible happened.” I am not for a completely new social practice. Sometimes our claims are irresponsible, but often it would mislead if we, being asked, were to say “I don’t know.” The incorrigibility *principle* says that we go against the strict use of the term *knowledge* if we say “I *know* that such and such, but there are remote possibilities that I am mistaken,” that is, remote possibilities that I don’t know that such and such.

Let us now look at the following inference.

Premise: Knowledge that such and such, implies absence of possibilities, remote or proximate, that such and such is a mistake.

Conclusion: Knowledge that such and such is in principle (absolute) unattainable.

There are no formal logical rules such that the conclusion follows from that premise. One must add one or more premises. From “I don’t see how I can avoid the *possibility* of a mistake” does not follow “Avoidance of such a possibility is never possible.” The situation does not change if “no one sees” is substituted for “I don’t see.”

I completely agree with Rescher, though, when he says: “Knowledge claims impose no inherently infeasible demands. The ‘incorrigibility’ of our knowledge claims require no more than that every *realistic* prospect of error has been eliminated” (Rescher 1980: 89). Claims do only impose mild demands—no realistic prospect of error from a social point of view. “You, as an adult member of our society, should have made more inquiries before you claimed to know. There was a perfectly realistic possibility of a mistake.”

My general conclusion here is that what Rescher says does not substantiate that the Pyrrhonic sceptic as conceived by Sextus in any way leaves the linguistic community when he supports the strict concept of knowledge and *refrains from using the term* except when loose use of it is socially required.

One of the serious arguments against the existence of zetetic *philosophers* as characterized by Sextus may be formulated as follows: If a zetetic says something like “I do not think I have ever found any truths or possessed any piece of knowledge, but I am still inquiring,” his testimony is interesting as a fragment of an autobiography. It does not deserve the name

of philosophy. If, on the other hand, he positively asserts that he has not found, or that it cannot be found, he is no longer a zetetic. If he lets us understand that he is speaking loosely, he does not speak as a philosopher. In this case he might be said to join the cultural conversation in a postmodern sense, but not to be engaged in the exposition of a philosophy. Conclusion: there may be zetetics, but there are no zetetic philosophers. Philosophers don't speak loosely!

The above conclusion is warranted, I think, as long as the philosophy of a zetetic sceptic consists only of one epistemological point, the zetetic point. He may, however, be working within the framework or tradition of any philosophical system or tradition, not just the Heraclitean or other sceptical-sounding traditions. He may even work within Platonic, Scholastic, or Spinozistic *traditions*. To try to work and act within a definite framework, one has to *accept it tentatively*. The acceptance needed is not acceptance as knowledge, or truth.

Sextus proclaims (Pyrrhon., 1,1,1) the distinction between dogmatists and sceptics in order to present a main classification of philosophers. Other *fundamental divisions* deserve our attention, but considering other divisions does not undermine the one that Sextus makes.

Always on the Way

The human mind is an inquiring mind. When deeply engaged it pursues a mercilessly thorough inquiry. Nothing is left untouched, not even the sense impressions, not even logic. At any moment, though, the focus of attention is limited; therefore, we must work with presuppositions we neither firmly believe nor momentarily question. The more precisely we formulate the specific question we focus on, the clearer is our awareness of the questionable assumptions we accept in order to formulate that particular precise question. With a change of focus, any of these assumptions may, it seems, be questioned.

Nicholas Rescher, in his meticulously fair but critical survey of arguments, reminds me of the human inability, whether desirable or not, to live continuously engaged in questions regarding inquiry into deep premises of thinking, premises of our own actions and our own way of life. This inability may be a "fact of life," or maybe it is not. It may make it insincere to

Trust and Confidence in the Absence of Strict Knowledge and Truth

avoid expressions like “I *know* that . . . ,” and “It *is* true that. . . .” I am not sure about this inability, however. Perhaps even some of those who often use the expressions freely, even sloppily, do have continuously an awareness of undecidedness and a persistent desire for further inquiry. Some searching souls are perhaps sufficiently integrated to live *consistently* the life of a conscious, vigilant, searching, joyful sceptic.

How Can the Empirical Movement Be Promoted Today? A Discussion of the Empiricism of Otto Neurath and Rudolf Carnap

Preface, 1956

This little treatise was written in the years 1937–1939. At that time logical empiricism as a philosophical movement was hardly known here in Norway. Today there are many who not only know about it but who have studied it more or less carefully. These circumstances are part of the reason that I did not want to publish this paper before the war, whereas I now consider the moment suitable for publication.

This essay concerns the logical empiricism of the 1930s. The authors discussed have since modified their opinions in several respects. This is particularly true of Rudolf Carnap. I believe the treatise may nevertheless contain something of interest. Carnap has already become a “classic.” A discussion of his viewpoints, at whatever phase of his production, benefits the general interest. Added to this is the fact that the treatise represents a

This paper, originally written in German during the years 1937–1939, was made accessible as a mimeographed semipublication in 1956 by the Institute for Philosophy and the History of Ideas, together with Universitetsforlaget in Oslo, under the title *Wie fördert man heute die empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolf Carnap*. This (authorized) English translation of the German text is by E. M. Barth. The editors warmly thank Mr. H. Isaacson for his suggestions for improving the English. Footnotes dating from 1939 are indicated in the usual manner. The numbers between brackets refer to the notes and comments in appendix I that were added by Naess in 1956.

This article was reprinted with permission from *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. van Dormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), 197–255.

kind of empiricism that even today differs from the usual sort, an empiricism “without dogmas” and with “research,” not “science” (scientism), as its central slogan. I hope soon to have the opportunity to discuss from the same point of view some of the schools that have evolved more recently with analytical and empirical tendencies, in particular, the so-called Oxford philosophy.

By means of notes and comments (see appendix I, page 198) I have tried to link the treatise with the problems that command particular interest today.

I owe sincere thanks to Cand. jur. L. Porsholt for the considerable interest he has shown in this treatise and for verbal and stylistic improvements to the manuscript. He also took care of the translation (into German) of the two appendixes, which were originally written in Norwegian.

There Are No Universally Valid Demarcation Criteria

In textbooks on the history of philosophy, positivism and empiricism are discussed as certain doctrines among other philosophical doctrines. By means of abstract and often unclear concepts like ‘data’, ‘facts’, ‘experience’, and ‘science’, short and elegant formulations are made up that supposedly “define” empiricism and positivism. [1] [Numbers in brackets refer to appendix I.] These definitions are intended to serve as demarcation criteria (*Entscheidungskriterien*, decision criteria) that allow for a classification of the various doctrines, as is usual in the history of philosophy. One should be able to distinguish “criticism” from “empiricism,” “pragmatism” from “Bergsonism,” and so forth. The question arises of whether one can regard these formulations as adequate without completely disregarding the actual, ordinary uses of language. Through these formulations the empiricists, so to speak, meet the metaphysicians on their own ground: the empiricists offer formulations that are hardly inferior in abstraction, generality, and ambiguity to the acknowledged metaphysical formulations. I sympathize with those who, given these definitions, are neither empiricists nor positivists and who thus have to rank as metaphysicians. I agree with the metaphysicians in decisively rejecting the doctrines that one is supposed to accept in order to be a true and real empiricist. One renders the antiempiricists a good service when one defends such points of view.[2] In

the first place, one leaves the field of scientifically defensible formulations; in the second, one remains stuck with assertions that—insofar as they are a kind of negation of metaphysical points of view—have a meaning only as contraries to the latter and do not represent any independent contribution.

One of the merits of the logical empiricists is to have brought about a break with tradition on this point. The first steps toward emancipation from the scholastic mode of discussion have already been taken, and the unique capacity for development of the logico-empirical orientation guarantees that other steps will follow. I believe that with my proposals for changing formulations for the logico-empirical attitude, I am in accordance with the intentions of the triumvirate Carnap, Frank, and Neurath—but perhaps I am wrong.[3] In any case, many of their formulations seem dubious to me. To discover how the various formulations of this triumvirate are to be understood, I shall in the following pages choose a polemical style whenever this seems to me to serve the purpose.

There are some people who, though not always preoccupied with the special problems of any of the highly developed sciences, refer more frequently than other people do to the statements of so-called scientists and who in matters of ideology as well prefer to subscribe to the opinions of scientists rather than to those of other population groups. Whether the non-verbal behavior of such people has certain common characteristics is a question that may be left open; this problem belongs to characterology and to the “study of the behavior of intellectuals,” as Neurath called it.¹ In any case, I assume that certain linguistic habits occur more frequently and with a stronger positive emotional coloring among scientists than in other groups, and that utterances such as “He is an empiricist,” “He does not tolerate speculation in these matters,” and “He leaves it to future research to come to a decision here”[4] are used more often to refer to scientists than to other people.

Since terms like *empiricist* belong to ordinary language, and I assume (though I may well be mistaken) that the class of people who definitely count themselves as empiricists includes the class of people who have the attitude that I call empirical, I shall retain the word *empiricism* and state a number of theses and programs regarding the “empirical attitude.” If someone finds these theses and programs unacceptable, then there are two possibilities: either the two of us use the word *empirical* about different and

partly contrary attitudes, or he regards the thesis as not quite appropriate for that attitude, as exemplified in certain individuals, that we both call empirical. My first thesis is as follows:

1. Given a class of sentences, some of which are compatible with the empirical attitude and others of which are not, there is no decision procedure (*Entscheidungskriterium*) allowing of a short formulation (in, say, fewer than 1,000 words) that can be applied to distinguish those sentences that are compatible with the empirical attitude from those that are not.[5]

By stipulating that the criterion must not be too comprehensive, I eliminate the possibility of enumerating, in formulation of the decision procedure, all those sentences of which one—with a certain probability—can assume that they are regarded as “incompatible.” History teaches us that certain examples always recur.

When I say that there is no decision method, I only mean to state the untenability of the decision criteria that are at hand, not the “impossibility in principle” of formulating such a criterion. At any moment, one can find certain problem areas within which the discussion about what is compatible with empiricism is carried on with particular fierceness and scope by participants of high reputation. One discusses, for example, how seriously one is to take certain theoretical constructs such as “atom,” “*n*-dimensional space,” and so on, when one wants to make physical statements by means of them. Then there is the discussion about whether psychoanalytical theories can be accepted within the framework of the empirical attitude. Certain unverifiable assertions make for a wider area of debate. Assertions of this kind, of which even their advocates admit that they can neither be strengthened nor weakened within a finite period of time, are made. Is the admission of such assertions compatible with the empirical attitude?

It may seem that it would be much easier to set up a decision criterion of the said type when the class of sentences concerned in thesis 1 is limited to a certain field of discussion than when no such limitation is undertaken. However, to my knowledge such a decision has not as yet been found for any concrete field of problems.

The contributions one hopes for from such a decision criterion can, however, be reached in other ways. I offer the following thesis:

2. Within a given area of debate it is practically possible to sum up certain groups of assertions that empiricists regard as antiempirical by means of suitable formulations. Furthermore, it is possible to come to an agreement to avoid these assertions until further notice—to start with, in the area of debate in question; second, in any area of debate.

Even if only a small number of contested assertions could be neutralized in this way, it would help to promote the empirical movement.[6]

There are decision criteria that have been frequently applied, and often successfully, such as the criterion of verifiability of the Vienna Circle. By demanding from an opponent in a discussion that he must state the conditions under which his assertion is to be regarded as verified, and the conditions under which it should be regarded as falsified, one often enforces a certain concretization like that which the pragmatists obtain by means of a related discussion technique. The Bridgman method of asking for “operations” has become very popular (Bridgman 1927, 1934). A concretization usually requires an empirical formulation of the problems; it gives a direction to the discussion that makes it easier to bring to the fore the empirical component of the standpoint. If, on the other hand, the decision criteria—for example, statements about verifiability or, to use a term from Carnap’s recent publications, “reducibility” (Carnap 1936a, 1936b, 1937)—are elaborated to doctrines and defended as theses, then one constructs an unwieldy theoretical superstructure above practical and expedient technical instruments for discussion, and thereby weakens the empirical position.

The same holds for operationalism. In *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge Acquisition and Scientific Behavior), I have tried to point out the weaknesses of an “operational view” that is presented in the heavy armor of a general doctrine.

When the decision criteria that are presented in the form of theses are replaced by proposals for the technique of discussion, in given areas of debate, they lose their external dignity but they gain in efficiency. This observation leads to the following thesis:

3. It is practically feasible, in connection with assertions occurring in given fields of debate, to set up certain general demands by which the elimination of nonempirical formulations is facilitated. Such

demands may be regarded as technical instruments for empirically oriented discussion and exposition.

Should anyone be of the opinion that such a demand ought to be universally valid for every sentence compatible with the empirical attitude, or that it be anchored, for example, in the “Logic of Science,” then it would be desirable to distinguish this opinion from those according to which this demand may promote empiricism as an instrument in discussion. One then would have a technique for discussion in common and disagree only as to the import of these demands when they occur in the form of statements about statements.[7]

Carnap’s and Neurath’s Demarcation Criteria: Physicalism

Many physicalist formulations seem to me speculative. Popper has called physicalism “metaphysical.” That seems to me to be merely a polemical sharpening of the situation. The question I want to discuss below is not whether physicalism, version 1936–1937, is antiempirical but whether it proves useful. It then becomes important how one interprets it. The presentations of physicalism are extremely brief compared with the enormous pretensions that they represent.² One does not quite know how to interpret physicalism in detail.

For the following analysis I have to choose whether to interpret physicalism in a very benevolent manner or to stick more closely to the available formulations of it. I choose the latter. It would be a demonstration of a particular disdain for physicalism were one to agree with its adherents only because one had the feeling that they were working for the same general goals as oneself and because one therefore had a “positive transference” in readiness. It also may be seen as a characteristic feature of the writings of Carnap and Neurath that they culminate in concrete formulations that are supposed to stand on their own feet.

What brought Neurath to set up the first formulations of physicalism? According to his own statements (Neurath 1936c), it was the conviction that one could (and, we add, that one should) discourse about stars and about human beings with the same “logical technique” and in the same scientific, unexalted—and for Neurath that means unmetaphysical as well—way. Who-

ever has such a feeling will enthuse about physics as a lover of art may enthuse about particularly outstanding works of art. One may well recognize the limitations of the scientific achievements of the physicists and dissociate oneself from the *philosophizing* physicists; something will nevertheless remain that may serve as a model for research workers in fields other than physics. Hence, the frequent attempts to imitate the physicists, to use their terminology, to carry their questions over to biology, psychology, and sociology. [8] These attempts probably do not originate so much in the conviction that physical doctrines are directly applicable to these fields as in the feeling that the physicists' fundamental attitude and their working methods, which have been corroborated over a long period of time through a series of scientific investigations, will be more easily carried over to other fields when something of the external equipment of physics is brought along at the same time.

The formulations of the nineteenth-century materialists mostly portray very crude and strongly ideologically impregnated attempts to carry out this transfer. Since those attempts reflect their predilection for the more metaphysically-ontologically colored physical theories, they are completely valueless today when taken as expressions of a basically scientific attitude. Neurath wanted to find a formulation that could measure up to the high standards of advanced research into foundations, of a theoretical physics understood as being in the process of undergoing deep changes, and of a discussion technique sharpened by the rise and dissemination of the new logic. I believe that the first formulations of physicalism should be evaluated from the point of view of this goal.

The goal is a high one, and I believe that one would have to be extremely generous to take the first formulations seriously. Carnap and Neurath are, however, absolutely prepared to regard these formulations as attempts that have been outstripped by formulations from recent years. Are those later formulations now to be regarded as improvements of the former ones on essential points? One might suppose that the changes have been made only under pressure from criticism and that they therefore are of a negative, unfruitful kind. I believe that such a supposition would be mistaken. The formulations have undergone a profound development, and the readiness to start anew and to admit earlier weaknesses does the physicalists great credit. This readiness is a much better guarantee of their basically scientific attitude than are their keenest formulations.

Let us declare, then, so as to simplify the discussion, that the older formulations of physicalism—say, until 1935—are to be regarded as “null and void.” It may nevertheless be worthwhile to take a closer look at them. Perhaps the line of development that connects these formulations with the current ones can be extrapolated so that it may give us an indication of how to develop the physicalist formulations still further.

In the domain of German culture, questions that do not uniquely belong to one of the special sciences are largely in the hands of members of the philosophical schools. The first formulations of physicalism were characterized by opposition to the view that such questions must be left to metaphysicians with or without a scientific education. German scholars were accustomed to the idea of acknowledging an authority over and above the sciences. This had led to an outlook on philosophy as a science with whose results the achievements of the special sciences must be in keeping in order to be “true,” and to which all questions belong that are not yet really dealt with by any special science. When physicalists say “There are no philosophical sentences,” this is a somewhat breezy expression of their rejection of this philosophical authority. The very strong position of professional philosophers, and especially their strong tendency to isolate themselves vis-à-vis science, is specific to the German culture. The sharp counterformulations (*Abwehrformulierungen*—the expression is Neurath’s) against the metaphysicians lose much of their point when they are used, say, within the English culture. A great weakness of the original formulations of physicalism is that they are much too clearly inspired by the wish to ward off a strong enemy who threatens to press the physicalists in their isolation against the wall. Under the influence of empirically oriented investigators from outside Germany, the physicalists could permit themselves to speak more freely. They became inclined to replace antimetaphysical formulations that were influenced by “local” feuds with ametaphysical ones. This replacement must, I believe, lead to the dissolution of the decision criteria that are formulated as theses. They have the important property in common with the counterformulations of having clear meanings only as negations of metaphysical utterances. When one asks for further content, they turn out to be ambiguous and hardly testable.

We now want to consider the most recent formulations of physicalism. The latest comprehensive formulation I know of comes from Carnap:

The so-called theses of physicalism assert that every term of the language of science—including besides the physical language those sub-languages which are used in biology, in psychology and in the social sciences—is reducible to the terms of physical language.

(Carnap 1936a: 467)

It will be necessary to analyze the terms *language* and *reducible* more closely. What does Carnap mean by these words?

Carnap's Term *Language*

To those unfamiliar with the special linguistic tenets of the physicalists, it will sound somewhat strange to hear about a “language” of science. Does science have a language of its own? To answer this question one has to investigate in more detail how Carnap uses the term *language*, for among physicalists *language* is a technical term, just as *world* is a technical term in Minkowski's publications or *Kapteyn universe* is a term among astronomers. In the English, and most recent, edition of his *Logical Syntax of Language*, Carnap comments on the term as follows:

(S1) By a language we mean here any sort of calculus, that is to say, a system of formation and transformation rules concerning what are called expressions, i.e. finite, ordered series of elements of any kind, namely, what are called symbols.

(Carnap 1937: 167)

(S2) In the widest sense, logical syntax is the same as the construction and manipulation of a calculus; and it is only because languages are the most important of calculi that, as a rule, only languages are syntactically investigated.

(S3) When we maintain that logical syntax treats language as a calculus, we do not mean by that statement that language is nothing more than a calculus. We only mean that syntax is concerned with that part of language which has the attributes of a calculus—that is, it is limited to the formal aspect of language. In addition, any particular language has, apart from that aspect, others which may be investigated by other methods. For instance, its words have meaning; this is the object of investigation and study for semasiology. Then again the words and expressions of a language have a close relation to actions and perceptions, and in that connection they are the objects of psychological study. Again, language constitutes an historically given method of communi-

cation, and thus of mutual influence, within a particular group of human beings, and as such is the object of sociology. In the widest senses, the science of language investigates languages from every one of these standpoints; from the syntactical (in our sense, the formal), from the semasiological, from the psychological, and from the sociological.

(Carnap 1937: 5)

From this it is fairly clear that “language” for Carnap consists in a system of rules, meaning not primarily in, say, a vocabulary and a grammar. The “expressions,” a subclass of which are “terms,” belong to a definite language only insofar as they are mentioned in certain rules. This is probably the sense in which the term *language* should be understood in the paper “Testability and meaning.”

The “language of science,” then, means a system of rules for the expressions occurring in science. Since such a system of rules has not been produced, I draw the conclusion that “rule” in Carnap’s writings is not always replaceable by “historically present, explicitly formulated rule.” Also, by “system” he can hardly mean “elaborated system”—for such systems exist only within metaphysics.

Certainly there are expressions that could be counted as “explicitly formulated rules of science.” I take a publication that I call scientific and soon find a sentence that no doubt may pass for one, “Behind every radioactive element its half-life is listed, whereby *s* means a second, *m* a minute, *d* a day, and *a* a year.” Here a rule is given for the use of the expressions involved (in this case the Latin letters *s*, *m*, *d*, and *a*). As long as nothing more is said about the utterances that are to be regarded as rules, I conclude that rules that have been explicitly formulated always say something (but perhaps never everything) either about the form of certain expressions or about the transformation rules that apply to them, and that they always have a validity range, though one that mostly is not explained. In the case just mentioned, the tabular use of the expressions *s*, *m*, *d*, and *a* is covered by rules, and the table constitutes their validity range. More briefly, we may say that the validity range of a rule can be determined by specification of two things: (1) a topic for discussion (in this case “tables of decay series of radioactive elements”), and (2) one or more authors who set up the rules and intend to use them.

We shall not delve into the question of possible criteria for what in a given concrete text constituting a scientific treatise is to count as an “ex-

plicitly formulated rule.” I think, however, that it would be highly desirable to make this expression more precise, and to do so by means of examples from historically present texts. For rules do not fall from heaven; they are primarily utterances made by definite persons.

It emerges from Carnap’s writings that by “rule” he—often, at least—also understands “implicit rule.” To the implicit rules belong implicit determinations. An example is “If from the totality of all numbers one separates a finite or infinite part according to some point of view or other, then this part forms a numerical set.” Here something is determined about the expression “numerical set.” From Carnap’s doctrine on pseudo-object sentences, it becomes clear that his concept of an implicit rule is very wide. For the implicit rules as well as the explicit ones, it holds that they occur in certain fields of science as products of the activities of certain authors at certain moments. Moreover, any determination of the implicit rule in a given text is afflicted with the same kind of uncertainty as every other activity. One has to count the possibility that different people can come to different conclusions with respect to the question of which rules are implied in a certain case. This shows the necessity for concrete specifications of how the “rules of science” are arrived at.

In addition to explicit and implicit rules for the formation and transformation of scientific expressions, there are observable regularities among the expressions. Regularities may be taken as symptoms of rules if one assumes that a rule is more or less consistently followed and that thereby a systematic distribution of the expressions often emerges. The trustworthiness of the regularities as symptoms of rules is a matter of observation. There are also regularities that are seldom mentioned in rules. In Carnap’s publications, for example, expressions are usually ordered in parallel layers that run straight across the pages. When one finds that the distribution of certain expressions obeys a certain law G_1 , then it also (for example, according to Newton’s interpolation formula) turns out to obey other laws. One cannot therefore say that the distribution follows a certain rule. One could, however, say that among any number of rules it also obeys a certain rule R_1 . This mode of speech is inadequate inasmuch as it may evoke the understanding that rules as names for regularities of signs are quite something else than regularities in other phenomena (for example, in the distribution of a species of trilobites). In the following, we shall not call statements about regularities rules.

The Expression “All Terms of the Language of Science”

We have now reached a stage at which we can undertake an analysis of the expression “all terms of the language of science” as a whole. As examples of terms, we believe one can list *pitch*, *volume*, *cross section*, *pain*, and *true*. *Terms* and *expressions* belong to the terms as well, insofar as the syntax of the language of science is understood as part of science. “Syntax, pure and descriptive, is nothing more than the mathematics and physics of language” (Carnap 1937: 284). (We here allow ourselves to assume that by “language” Carnap does not mean “system of rules” but “expressions that show regularities.”) What is to be understood by “all terms of the language of science” depends on which concept of “rule” is chosen and on how the relation of terms to language is understood. According to the technical meaning Carnap gives to the word *language*, it would seem that the expressions to which rules refer constitute the “expressions of language.” Then “all terms of the language of science” must, as far as I can see, mean all those terms that are (1) affected or (2) completely regulated (meaning, their usage is completely determined either by the explicit rules for expressions of science or by the explicit and implicit rules for expressions of science).

Apart from these four possibilities, there are at least four others—if regularities in the usage of scientific expressions are taken into consideration. I mention this only to emphasize that if one wants to settle the question of the final meaning of the expression “physicalism,” one has to make a choice. When reading about physicalism I continually have to choose, without knowing which choice the author has made.

The difference between (1) and (2) I understand in this manner: when there is at least one rule that refers to a certain term, then that term is affected by that rule. When one stipulates about use of the expression “ \circ ”: “Division by \circ is not permitted,” then this expression is already affected by this rule. In connection with symbolic languages, one often claims that usage has been completely determined, and not just for the situation in which the term is possibly ambiguous. I see no reason for supposing that the usage of an expression can be completely and univocally regulated.³ To come to an assessment of physicalism, it suffices to assume that one can speak about more or less complete determination, and that a very high degree of completeness is possible. As has often been emphasized, symbolization does not guard against ambiguity of the rules, since these are introduced and com-

mented on by means of nonsymbolic languages. After the rules have been introduced, one can, of course, formalize them using only symbols, but these symbols must be introduced by means of ordinary language. If Carnap's concept of rule is to be directly applicable to a given text—to geological writings, say—one must be informed about how he roughly imagines the determination of the usage of expressions, at least for some concrete examples.[9]

What Are the Terms of Science?

Let us take a scientific text as an example. In Holleman's *Lehrbuch der organischen Chemie* (Textbook of organic chemistry), section 28, we read that "Methane occurs in the gases flowing from volcanoes." It seems rather clear that one can find at least one explicit transformation rule for the expression "methane"; consequently, this is a term of science. "Occur" is hardly affected by the rules of chemistry. It is, however, present in its vocabulary. One can interpret the latter as a system of rules for the use of words; hence we can also say that "occur" belongs with the terms of science (provided implicit rules are counted as belonging to the language of science). In this manner, one can probably leaf through all of Holleman, and it seems to follow that the expressions of complete texts are expressions of science. When I count a text T as belonging to science, then the expressions of T all belong to the expressions of science, provided (1) one understands the concept of rule as so wide that implicit rules are included, and (2) all terms that are affected by rules are counted as belonging to the language. If the vocabularies are to be utilized as sources of rules, then one must realize that hardly a single term of occult writings falls outside the class of scientific terms. Suppose t_1 is a term of the object language and also belongs to the language of science; it cannot be excluded that one can find a term t_2 that the vocabulary connects both with t_1 and with t_3 —an occult concept. Thereby the term t_3 is affected by transformation rules of science and consequently belongs to science—according to Carnap's explanations.

If, on the other hand, one demands that the use of an expression be completely and uniquely determined if this term is to be reckoned as belonging to science, then I believe there are no terms of science. In any case, I know of no example of such terms. It would be a weighty argument if the physicalists could present such a term.

Carnap's Term *Physical Language*

Let us give the name "physical language" to that language which is used in physics. It contains the thing-language, and, in addition, those terms of a scientific methodology which we need for a scientific description of the processes in inorganic matter.

(Carnap 1936a: 467)

Let us give the name "thing-language" to that language which we use in everyday life when speaking about the perceptible things surrounding us. . . . A sentence of the thing-language describes things by stating their observable properties or observable relations subsisting between them.

(Ibid., p. 466)

Let us immediately notice that Carnap's style in his treatment of this question is quite different from the usual style in his *Logical Syntax of Language*. The expression "perceptible things surrounding us" is almost lyrical in its indefiniteness compared with expressions such as "numerical expression," "logical content," and "functor-variable." A linguist or psychologist would not seriously proffer statements to which "rules for expressions we use in everyday life when speaking about the perceptible things surrounding us" would not be applicable. How are we to distinguish such expressions from others? Countless questions arise and demand a solution before one can take the expression seriously. Carnap does not offer any helpful comments—one simply has to accept the expression in order to continue. I take it that the matter is simplified by Carnap's statement that the "thing-language" describes things by means of sentences about observable properties or observable relations between them. In the following, I shall therefore analyze this definition (*Bestimmung*) and disregard other ones. The analysis is rendered more difficult by the fact that "observable" can be interpreted in several ways. Were Carnap of the opinion that a sentence belongs to the thing-language whenever he—or another authority—concludes that it says something about something observable, then other conclusions would follow under other interpretations. In the said case, the question of whether the sentence—as a complex of signs—does or does not contain observation terms would be unimportant. The weight of the sentence would depend on whether experts find that it expresses something observable. Meanwhile, I find no indication in Carnap's texts that would make such an interpretation

probable. The most reasonable interpretation of “thing-language” therefore seems to me to be that it consists of sentences that contain observation terms. This leads to further conclusions.

According to Carnap, the physicalist language is to consist of the thing-language and the technical physical language. This specification indicates that Carnap does not count the terms of the complete text of a physical treatise among the expressions of physical language. It is very easy to see that only a fraction of the expressions are observation terms or technical terms. On the other hand, it seems likely that very many expressions of ordinary language are to be found in physical treatises. This means that texts have to undergo a reduction before one, on Carnap’s definition, can say that they are now written in physical language. We could formulate guesses about how this reduction could be done, and one cannot say that Carnap has not expressed himself about the concrete execution of the reduction. It will suffice to observe that it is a thorny and complicated matter in whose executability I rather believe, although it has not yet been demonstrated. Theses about such reducibility are worthless, but research programs are fruitful.

Carnap’s Term *Reducible*

The main difference between the formulation of physicalism in the period 1932–1935 and the 1936 formulation is that the terms *definability* and *translatability* have been replaced by *reducibility*. It is desirable to arrive at clarity about this difference. It is easy to characterize the distinction in abstract terms: There are cases in which scientists introduce sentences that cannot readily be tested by the production of an experimental situation. Nor can they be eliminated by substitution. One can, however, often indicate the observational conditions under which they are to count as verified, as well as the conditions under which they are to count as not verified. Carnap believes that this manner of introducing sentences, and thereby terms, is legitimate. This implies that the earlier formulations of physicalism must be abolished. They presuppose that terms that have once been introduced can be eliminated, namely by the equivalences that define them. The expositions on reducibility seem to be clear—until one starts to look for examples of sentences that cannot be eliminated on the basis of a definition and that

nevertheless can be verified via reducibility. Carnap's example on page 64 of "Testability and meaning" is extremely complicated and anything but clear to me.[10] I believe, however, that the distinction between definability and reducibility can be clarified. This would presuppose the analysis of many examples, which would require complicated comments and explanations. Without such explanations, the distinction between the sentences that are concretely available in some scientific treatise, with a description of its properties, and a rendering of these sentences in a symbolic language with specified introduction-clauses, is much too large to secure an unequivocal rendering.

I make the following prediction. Given ten people who have made a serious study of Carnap's writings and whose intelligence quotients are not lower than 125, Carnap is allowed to choose ten sentences, by means of a random procedure, that in his opinion partly can be tested directly and partly can be introduced by reduction. The subjects are given the task of indicating the conditions under which the testable sentences are testable, and how the terms of the reducible sentences can be reduced. Here is my prediction: fewer than eight sentences will "correctly" be judged to be testable or reducible. More than 50 percent of the given testing conditions or reductions will differ from those that Carnap had set up. My confidence in the unique feasibility of the reduction of sentences would greatly increase if this prediction, whose further elaboration I leave to the physicalists, is not confirmed.

The reducibility of sentences seems to me to be a formalized expression for the specification of the meaning of a statement by "operations" (Bridgman). In those cases in which this method is successful, reduction will also be successful; when the specification of certain operations is practically excluded, reduction will be dubious as well. I therefore think that reducibility should definitely not be regarded as a necessary condition for the scientific legitimacy of a sentence.

Now suppose that reducibility is instead taken as a sufficient condition. By "reducibility" we shall not understand "general reducibility" but "nongeneral" or, as I shall call it, "singular reducibility." When one investigates metaphysicians' writings, one finds that their sentences and terms are singularly reducible to sentences and terms of physical language.[11] For example, they commonly use historical events as arguments. These are usu-

ally formulated in ordinary language. What most metaphysicians do not want to admit is precisely that their terms and sentences may be translatable, meaning eliminable. Without a systematic investigation of concrete examples of antiempirical formulations, it is not possible to set up decision criteria.

In my opinion, it follows from what has been said that the criterion of reducibility cannot be used as a decision criterion, for two reasons:

1. General reducibility as the criterion excludes most, if not all, present sentences of scientific texts.
2. Singular reducibility as our criterion cannot prevent the inclusion, for example, of occultism and metaphysics of every kind in science.

Concluding Remarks on the Formulation of Physicalism

It is not possible to take a uniform standpoint on physicalism since the concept is not unequivocal. Even if one takes the concept of rule as so wide that implicit rules are included and one understands “reducible” as “singularly reducible,” many scientific statements are excluded from physicalist language by the physicalists’ thesis. On the other hand, some statements that one does not like to see as scientific are thus reducible. In short, there are terms in scientific language that are not reducible to the terms of physical language, and there are nonscientific terms that are reducible to physical language.

If, on the other hand, only explicit rules are included in the language of science, then the physicalist thesis becomes a thesis about infinitesimal parts of the texts of the scientists. If—a third possibility—one starts from “reducibility” in the sense of “complete reducibility,” then I fear that there would not be a single scientific text whose terms are reducible to physicalist language.

Our assumptions concerning what Carnap understands by the words *language*, *scientific*, *rule*, *observable*, *reducible*, and so on, on which we have based our conclusions, are numerous, and hard to check at that. It is therefore more appropriate to say that, given the way in which physicalism is formulated today, I do not have the necessary means for understanding it, not to speak of testing it. One might retort that under these circumstances

it would be better not to mention it at all or else to await the offer of more material from the physicalists. It is questionable, however, whether the physicalists take supplementation to be necessary.

As the physicalist thesis lies before us today, it indicates a special attitude toward certain very general questions. Perhaps we may be allowed to read one of Carnap's remarks at the end of "Testability and meaning" as saying that the thesis is meant as no more than a suggestion: "The object of this essay is not to offer definitive solutions of problems treated. It aims rather to stimulate further investigation by supplying more exact definitions and formulations, and thereby to make it possible for others to state their different views more clearly for the purposes of fruitful discussion" (Carnap 1936a). There can be no doubt that Carnap has reached this goal. He has introduced new and fruitful precisizations (*Präzisierung*) in areas of debate in which precise formulations are extremely rare. However, one cannot achieve a uniform, equable precision at one blow where there was none before. Carnap's manner of making his statements more precise may be called insular insofar as he attempts to set up theses about science in general or about empiricism (for example, responses to positivism).[12] Most of the relevant questions one would have to raise have not yet been formulated empirically, not to mention the task of making them sufficiently precise. This makes it even more desirable to produce recommendations for expository and discussion practice. Such a focus does not block the way for a later use of them as supportive reference material for far-reaching theses.

The methodical avoidance of an exposition in terms of "theses" when "recommendations" would better suit the situation has admittedly not yet become common practice. It becomes a matter of course, however, when a unification of the sciences is achieved in the sense of the empirical movement. Later on, I shall touch upon the questions forced on us by Neurath's idea of the encyclopedia. One should not lose sight of the fact that the physicalist speaks of Science as a whole, and hence makes statements that I as an empiricist want to treat with the greatest caution. For, in general, such statements are nothing more than substitute products—and poor substitute products at that—for metaphysics, unless they are simple defense formulations against metaphysics. This is the way in which I, for example, understand my own treatise *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge Acquisition and Scientific Behavior).

Is It at All Possible to Determine the Meaning of a Statement?

Closely connected with the question of physicalization is the question of whether the physicalists are intervening in the psychologists' discussions and, if so, with what success.[13] Carnap and Hempel have more than once emphasized that such intervention does not and cannot take place. Nevertheless, one finds Carnap writing, in connection with the derivation of protocol sentences from physicalist sentences: "In descriptions of states of the body attention should be given above all to the state of the central nervous system, and here again in the first place to the cerebral cortex." Admittedly, he does add: "For our purposes it will not be necessary to go into further details" (Carnap 1932a: 457). Does the logical aspect stop exactly here?

The quoted utterance by Carnap is "of a logical nature" insofar as one can maintain that the statements of the neurophysiologists are chosen as objects of research, but is the selection of statements by neurophysiologists, who often contradict themselves, made according to logical criteria? There are neurophysiologists who maintain that they use Bergson's philosophy in their own work. I do not know by means of which syntactic rules one could justify choosing the opinions of one physiologist over those of another. In any case, there is a conspicuous similarity between Carnap's logical theses and the theses on the philosophy of nature formulated by materialistically oriented physicians in the nineteenth century. Certainly, this similarity is no argument against Carnap's theses. It remains to be seen, however, whether ideas of this kind will suffice for the solution of the problems that occupy physiological and psychological research today. The scientists themselves do not agree on this point. Among physiologists, there are quite a few who talk about "brain mythology" when ideas of the said kind are brought forward. This assessment is amply represented precisely among behaviorists and scholars of related provenance.

Voices are heard against the wish to reduce behavioral laws to laws formulated by means of the customary, although heavily misused, concepts of physiology. By such a reduction, one often only achieves the replacement of clear and pure and practically testable statements with statements of dubious testability that are no more suitable for use in further prognosis—some would say less.

We shall not take a stand in this discussion.[14] For us the only important question is, Does one always stand up for empiricism by propagating the thesis of physicalization? I believe that it is often worthwhile to emphasize the achievements of the physicalists. In certain discussions with relevance for the general question of empirical decision criteria, it would, however, not be useful. Statements on reducibility ought to be avoided as too speculative. Instead of statements, we would like to see programs, which ought to be differentiated over the various front lines of research.

The examples that have been adduced in favor of physicalization show that the physicalists do take a stand, at least indirectly, in regard to the ongoing discussion in physiology and psychology. Some questions in the physiological discussion admittedly do have a logical aspect, and Carnap has tried to isolate this aspect. Over and above this, however, the physicalists have their own opinions in matters of physiology and psychology. The isolation of questions of syntax from object questions as a program for future discussions cannot be dealt with here.

The syntactical properties of the language of science are changing with time. It is hardly possible to isolate them completely from the other properties of the language. In fact, such an isolation might be a liability to the empirical attitude. At least this may be said when Carnap's theses are interpreted in a certain and very reasonable manner. Given the clearly empiricist basic attitude that Carnap has displayed on other occasions, one might regard this interpretation as unjustified. I find it difficult, however, to give a sense compatible with the empirical attitude to the following utterance made by Carnap:

In applying a procedure we are free [he refers to the experimental method in psychology], but not in our interpretation of the sentences we have obtained. The sense of some sentence, however arrived at, does not issue unequivocally from the logical analysis of the procedure we have used to obtain and to test it.[15]

(Carnap 1932b: 138)

Sense, content, meaning, and similar words seem to be very simple things. From the way they are used, one gets the impression that it would always be easy to find "the sense of a sentence." Assertions about the meaning of a statement, *p*, are best understood as hypotheses, however,

provided the assertion is somehow supposed to be brought into connection with the current use of *p* in linguistic communication. One might expect statements about “obtaining” and “testing” systematic sentences to have the form of protocol sentences, but if we look at historically extant sentences about “obtaining” and “testing,” they are seen to contain very abstract, very compressed, and often rather unclear indications about what is essential in this “obtaining” or “testing.” A description of the type of behavior that goes with the uttering of systematic sentences is clearly out of the question. Nor do we find any indication (1) about how to describe such behavior and (2) by means of which rules one could distill what is needed for the determination of this “meaning” from a report on behavior. (1) presupposes that very complex and quite unresearched questions of behaviorism have been solved. Not even conventions are available that could tell us how to carry out the description. If there were any, then the physicalist would be justified in saying that his theses do not presuppose any solution to behavioristic questions.

From this relationship between statements about the “procedure” for obtaining and testing systematic sentences, and the sentences themselves, it becomes clear that to the statements about “the meaning of a sentence” one can apply the Duhem-Poincaré thesis, according to which a plurality of theories can be coupled with any given set of experiential data.[16] Systematic sentences about “language,” “syntax,” “deducible,” “analytic,” “provable,” “decidable,” “sequence,” “formal determinants,” “true to content,” “*gehaltfremd*,” “physical,” and “meaningless” do not constitute a class of exceptions in the sense of being uniquely decidable.

The difference between a “logical analysis” of a sentence and a behavioristic description of its functioning is not that the results of the former are irrevocable and those of the latter are not. Expressions like “content,” “form,” and so on are admittedly defined in a partly arbitrary manner, but such definitions cannot always be applied to given statements. Whether an expression has been applied as stipulated is not merely a question of stipulation but a matter of observation as well.

The general opinion that “the meaning of a statement, however it is arrived at” is “uniquely determined by a logical analysis of the procedure by which the statement was obtained and tested” seems to me to be incompatible with the Duhem-Poincaré thesis. Precisely this thesis seems to be a

good instrument against absolutism (Neurath's "pseudo-rationalism"), and as such I regard it as indispensable for empiricism.

Specification of Space and Time Coordinates Does Not Protect Us from Antiempiricism

The relationship between everyday testing methods and physicalism cannot be analyzed further unless one is prepared to delve into physicalistic conceptions of space and time. Neurath has suggested some formulations that are to allow for the difficult transitions between expressions of "trivial language" and those of an "advanced physical language" as well as to guarantee that metaphysical language is no longer possible. A crucial role is assigned to the criterion of whether a statement contains specifications of place and time. "Within the framework of unified science there are only statements that are reducible to spatio-temporal terms" (Neurath 1936c, 281). "Thus every science is similarly reduced to spatio-temporal terms, which constitute a complete basis for the construction of the protocol sentences" (ibid., p. 282). The presence of specifications of space and time is used as a criterion for the meaningfulness of a statement and thereby also as an empirical decision criterion: "One starts from observation sentences that in advance already contain measures of space and time, albeit in an imperfect manner. There will always be formulations concerning space and time beyond which one cannot go without saying something that has no meaning" (ibid., p. 298).

Let us try to find out what is meant by the expressions "space," "time," "to reduce to spatio-temporal terms," "to contain measures of time and space in advance," and to what extent specifications of space and time are a protection against metaphysics.

Everyday observation utterances do not have to contain specifications of time and space. If one supplies them with additional specifications of time and space, one does so on the basis of hypotheses. An a priori judgment to the effect that observation statements could always be integrated into the "spatio-temporal" sentential system would, however, have a taint of critical neorealism. One would thereby also have to distinguish between physical, physiological, and psychological (so-called tactilo-motor) spaces

of various kinds. Only by very tedious experiments is it possible to obtain practically testable statements about the nature of the “spaces” and “times” into which the sentences of everyday life are incorporated. The philosophical concepts of (the one and only) Space and Time (“as such”) are as inapplicable as physical spaces (for example, as classified according to some “operational” analysis à la Bridgman).

Since I assume that Neurath was aware of this, I presuppose that by “spatial and temporal specifications” he did not mean specifications concerning a certain spatio-temporal incorporation but either (1) specifications for the incorporation in some space and some time, or (2) specifications for the incorporation of statements about events into “history,” as history is understood in ordinary life. If (1) is meant, then Neurath’s definition of physicalism is too indefinite to make it possible to take a position on it, and if (2) is meant, it seems to me that specifications of space and time do not suffice to eliminate metaphysics. Many metaphysical formulations are full of specifications of space and time.

For example, the metaphysical writings of Rudolf Steiner contain a profusion of specifications of space and time and of observational terms of all kinds. The presence of these terms avails little. The metaphysical writings of Descartes, too, according to the usual interpretation given to them, contain statements that suggest how they can be reduced to statements about spatio-temporal events. The presence of general rules for this reduction may now and then be taken as an indication of a basically metaphysical attitude.

The requirement of reducibility to spatio-temporal terms is therefore of no importance for a strict empiricism; it is actually even incompatible with it. For the rest, I cannot see how one could test in practice whether the requirement can be satisfied and whether it is satisfied. That holds of every interpretation of the concept ‘to reduce’ which could be of relevance in this connection. Let us assume that Neurath would furnish rules for carrying out the test. Even so, one could not predict whether the statements that often come up for critical reviewing could be divided by Neurath’s demarcation criterion into two classes, one of which would contain those statements that at the moment are regarded as tolerably certain statements of natural science whereas the other would contain those statements that are usually deemed metaphysical.

Research Programs Instead of Theses: Models Instead of Systems

The great scientific successes of physics and its magnificent rise give it a special position from the point of view of the sociology of science. I say "sociology" because a serious history of physics needs to be undertaken from a sociological point of view. The material for such studies would be the utterances of a certain group of scientists, their instruments, the behavior of group members among themselves (collaboration, confidence, etc.), as well as their influence on the development of techniques, their position as scientists at universities, and so forth. The question of which factors have been the strongest in bringing about the current state of physics is an extremely involved one, at least if one wants something more than a list of names of these factors ("experimental method," "rejection of scholasticism," etc.) and wishes to find out which specific features of physics can be seen as symptoms of the influence of which specific factors.

The great diffusion of metaphysical materialism and its tendency to "reduce" all events to "material" or "energetic" processes exemplify the enormous effects of the successes of physics. They have no value for an empirical logic of science and theory of science. As we have already said, physicalism has quite different goals. In the first place, it is supposed to indicate the direction in which serious scientific activity moves in the nonphysical sciences, and in the second, the consolidation of all science is supposed to be made possible on the basis of the working methods in physics. The goals one sets oneself are often indecisive, and I believe that the physicalists' endeavors may be characterized by saying that they tried to catch the spirit of physical research, which they saw as particularly exemplary for "decent" (Neurath) scientific activity, in *one* formulation.

The first formulations were, however, conceived in too close dependence on a specifically physical conceptual mode. Too much was demanded of the nonphysical sciences in the direction of adjustment to physics. Today the formulations are much weaker. True, they are still of the same enormous generality—they all pertain to "all terms of the language of science"—but they nevertheless make demands only on the expressions (numerals and sign sequences) of the sciences. Nothing is said about the meanings of these signs and sign sequences. Nothing is being said about

the relation of physical sentences to the behavior of the scientists, nothing on the virtues of the style of physical treatises as a means of communication in a group of scientists. The reformulated physicalism therefore only very imperfectly realizes the original aspirations. At the same time, the physicalistic formulations have become dependent on the acceptance of highly complicated conceptions of a logical nature, namely the Carnapian doctrine of the syntax of the language of science, which today admittedly is the apogee of precision and clarity but which still is in the middle of its development. This already makes it impossible to gather empirically oriented scientists around physicalism. Acceptance of physicalism would contradict the commandment of carefulness towards general theses. On the other hand, the wide generality of a thesis has the effect that it becomes very hard to justify it and that one's efforts to do that are not related to the more specialized discussions about physically tinged questions that are carried out today in the nonphysical sciences. Such discussions are particularly frequented in the fields of biology and psychology. Programs and suggestions for research in limited areas would be natural here, rather than theses of the most general kind.

When psychologists have nothing more serious to do, they construct "systems"; they "define" psychology, isolate themselves from one another (autarchy of schools), and give outsiders the impression that scientific progress depends on finding the best psychological system. There are more than half a dozen in the behavioristic style, and several in the vein of Gestalt psychology, psychoanalysis, and philosophy of mind—to mention only the ones that are most vocally expressed. The efforts to unify psychology and all other sciences are given an unfruitful direction when one tries to find watered-down formulations that will satisfy all systems, on the basis of an analysis of the so-called fundamental concepts of the various systems. For the "fundamental concepts" are, of course, only the banners under which one school combats another school.

In fundamental opposition to this attempt is the effort to find the common focus of the various "psychologies" by unburdening the conceptual superstructure. Thereby the center of gravity is posited not in the general theses of the various schools but in their actual working methods. True, this will reduce the possibility of arriving at elegant formulations about the concepts they might have in common, for one will now have to pay at-

tention to completed singular experiments and to particular (not unnaturally generalized) results.[17]

Here I have come to an essential point concerning the evaluation of the physicalist thesis. Since the goal is a general thesis and not, say, a definite, well-delineated program, one thereby supports the above-mentioned thesis that the unity of science is to be sought in theoretical structure, namely, in auxiliary concepts and general models. In the field of psychology, physicalism one-sidedly supports the conceptual superstructure of molecular behaviorism.⁴ However highly one esteems molecular behaviorism—for example, in the form given to it by Hull⁵—by such an overt choice of sides concerning the systems of psychology no common platform for psychologists can be found.[18] One demands too much from the psychologists; one demands their acknowledgment of diffuse theses that at the most can be tolerated as research programs but that have been formulated far too absolutistically. I personally think that it is compatible with the empirical attitude to devote all one's energy to a certain research program, that is, in a certain direction. Absolutism in the choice of problems is caused by the fact that there are limits to what an individual can accomplish in science. This does not necessitate a categorical formulation of the results one hopes the program will yield. Absolutism of action in no way implies an absolutism of hypotheses.[19]

Psychologists are forced to choose a direction in their practical work. They are inclined to defend this direction against other claims by means of system-building. In my opinion, this can be explained by the following factors in the sociology of science: The number of psychologists is very small in comparison with the complexes of questions that are to be comprehended by a scientific psychology. The lack of tradition makes the position of psychologists less secure than, say, that of physicists or students of medicine. Enormous numbers of fragments of science of all kinds have been known in wide circles for a long time, but only in a completely unorganized manner in the form of "agglomerations" (Neurath: *Ballungen*) of statements that are positively crying for systematization.

In this situation and in the interest of the unity of science, it is above all necessary to fight against exaggerated systematic claims of all kinds. The inclination to present special methods of thought as absolute hampers the universal expansion of the specific sciences and thereby hampers a real unification as well.

On the Reification of Theoretical Constructs in Psychology

Philipp Frank (1917) has said that the lasting nucleus in Mach's doctrines was his feud against "the reification [*Vergötzung*, idolization] of theoretical constructions."⁶ The physicalists may be said to have carried on this feud with considerable success—insofar as they did not apply the thesis of physicalism. If the expression "theoretical concept" (*Hilfsbegriff*, auxiliary concept) is understood so widely as to include the atomic models, then I suggest speaking of "models of thought." Among models, some are always regarded as particularly fundamental. There are still textbooks and popular writings in which the impression is given that the achievement of physics is to have discovered that there *are* atoms. According to this view, physics would be annulled by the elimination of the idea of atoms. Yet these ideas are, in the physicalists' own opinion, at best instruments that allow us to find convenient formulations for sets of observation sentences.

There are models of a corresponding nature in psychology: for example, in psychoanalysis we have the concepts of the libido and the superego; these one can quietly eliminate without decreasing our knowledge. However, difficulties of formulation will result, for these auxiliary concepts have enabled Freud expediently to schematize and abbreviate observation statements. The model of "behavior" as it occurs, for example, in the publications of the molecular behaviorists, differs considerably from that of the superego. It can, however, just as easily—perhaps even more easily—be eliminated from behavioristic treatises without any loss of psychological knowledge. In consequence, the controversies between behaviorists and representatives of other schools often lose their meaning. What has been said about "behavior" holds as well, I believe, for expressions like "gestalt" in Gestalt psychology and "object" in Brunswick's psychology. The same also holds, however, for terms like *synoptic resistance* and *nerves*, used by the protagonists of the closest possible connection of psychology to physiology. One thinks that psychology is thereby already scientifically "saved." This is an encouragement for the influential brain-and-nerve mythology, whose adherents have propagated the unity of science for a long time already—in a particularly antiempirical manner.⁷ Those who are outsiders to empiricism—or who maintain that they are—often are of the opinion that the expansion of the habit of raising scientific questions is synonymous with

defending arrogant doctrines that arise from an intemperate generalization of already existing statements taken from the separate sciences, or by reification and generalization—*Vergötzung*—of the auxiliary concepts of the sciences. Diametrically opposed to this diffusion is the expansion that proceeds by in-depth analysis.

It ought to be mentioned that science cannibalism and science unification are different things. Precisely in our time psychologists, biologists, and sociologists are beginning to offer their own science as “universal,” in all possible and impossible senses. Biologists wish to see physical laws as special cases of biological laws; universal psychologism breeds new trends that are dangerous precisely because they take as their point of departure the doctrines of very successful scientific disciplines. Thus, for example, the author of *Erkenntnis und wissenschaftliches Verhalten* seems to want to see everything as questions of “ordinary observable behavior.” Tendencies toward science cannibalism are more pronounced than ever. Earlier, only physicists had much success as cannibals. Unity of science is rooted only when theoretical cross-connections (Neurath: *Querverbindungen*) entail consequences that allow for more effective prediction. The requirement can perhaps be given a less dogmatic formulation than has been done above, more in the form of a program.

Those attempts to arrive at an apparent unity of science by an enormous generalization of the field of application of certain models or theoretical concepts must be combated with the same determination as the view that the state of the sciences today makes for a chaotic spectacle. The latter opinion rests on, among other things, an overestimation and misjudgment of the role of the so-called fundamental theoretical concepts. From the fact that scientists disagree about the scope of various “fundamental concepts,” one concludes that the house of science stands on wobbly legs; because there are ten “psychologies” there is none at all.

Physicalism and Some Proposals Concerning the Technique of Discussing

I do not know to what extent Neurath and Carnap today (1938) still accept the statements of their own writings on psychology and the “language of psychology”; their publications on the subject date from the earlier phases of physicalism. For this reason I shall leave the matter here.

There are many remarks in Carnap's and Neurath's writings that lead me to assume that physicalism and the empirical decision criteria are to be understood as technical recommendations for how to proceed in a discussion. In any case, those authors will probably be prepared to let the "theses" be registered also as technical instruments for use in debate. Neurath's dictum "Physicalism is the manner in which one works for the unity of sciences today" could be used in support of this assumption. I could accept this dictum provided it were reformulated as "The reduction of terms that lay claim to a scientific status to terms that belong either to the stock of words in ordinary language or to the technical terms of physics, is one method that can be used to promote the unity of science today." (Corresponding utterances on sentences and laws might be added.) Personally, I would like to add one or two other statements of this kind, such as: the unity of science can be promoted by a reduction of sentences laying claim to a psychological or philosophical status to sentences about experimental observation conditions. This does not imply that the reduction is to be carried out once and for all, or that it must be conclusive and exhaustive; that would also contradict Neurath's recurrent emphasis on the dependence of theses—for example, physicalism—on time. The claim to finality and completion is an abortive attempt to beat the metaphysicians on their own grounds. One fears that a refutation that does not expressly condemn non-empirical formulations to eternal and unconditional separation from the field of science will be considered feeble and impotent. Someone who reacts this way is not very likely to be influenced by absolutistic versions of empirist statements either.[20]

An antimetaphysical attitude does not always protect against metaphysics, provided something more is meant by that expression than Heidegger's rhetorical style. In the interests of a radical empiricism, one ought to encourage an ametaphysical attitude, of which the antimetaphysical attitude can be no more than a preparatory stage. The opposition between "metaphysical" and "empirical," as it appears, for example, in the Vienna Circle, has been determined and clarified in the course of discussions. I believe that the views of the empiricists who have taken part in these discussions differ from those of their adversaries in this essential respect: when points of view are at war with one another, the empiricists try to find a suitable point of departure for further discussion by means of trivial, everyday

concepts and models of thought taken from ordinary language, whereas the metaphysicians remain stuck in the nontrivial, in the depths of thought, and not merely in “speculation” but in the “unconditional” as well. Above, I have discussed one type of philosophy of the unconditional: that of “the logical” as “the formal,” “that which comes before all substantial (scientifically professional) reflection.” When the discussion concerns, for example, the necessary conditions for scientific linguistic communication, or protocol sentences of the strictest kind, then it would seem that serious differences of opinion could be overcome by taking a step backward—that is to say: not in the direction of a beyond-the-ultimate, of a “meta-beyond,” but in the direction of the trivial. I have the feeling that the differences between the antimetaphysical and the ametaphysical attitudes are in part of this kind. Insofar as my own standpoint does not coincide with the standpoint of the physicalists as represented here, I would therefore choose to call it trivialism.[21]

The Encyclopedia Project—Its Significance for the Empirical Movement

The indications given by Carnap and Neurath that physicalism and the empirical criterion are not to be understood as doctrines but as general recommendations about techniques of discussion and methods, are underscored by their pronouncements on the encyclopedia project.⁸ The project of an encyclopedia based on Neurath’s principles seems to be the logical development of the ametaphysical empirical movement. One promotes the positive elements in empiricism precisely by organizing the efforts of those who want to work in the service of the empirical movement and through attempts to build a common language; empiricism in the sense of doctrines with a philosophical tinge is forced back.

The distinction made between “system” and “model” in Neurath’s publications about the envisaged encyclopedia signals a renunciation of attempts to meet antiempirical movements on their own grounds and with their own weapons. “System” is rejected and “model” placed in the foreground. It is hopeless to try to get empirical research workers to cooperate on a system, but it is not hopeless to call on them to cooperate toward a limited, qualified, and elastic unification.

For an encyclopedia as envisaged by Neurath, the distinction between decision criteria as doctrines and decision criteria as recommendations for a technique of discussion and exposition acquires the following meaning: decision criteria in the latter sense prevent the occurrence of a third world of statements in addition to the scientific statements of the encyclopedia and the representational rules of the encyclopedia (that is, the rules for the scientific statements in it). In other words, one prevents theoretical or “auxiliary concepts” (in Frank’s sense) of the encyclopedic exposition from being taken as absolutes and ending up as the superstructure of theses about the encyclopedia itself.[22]

The difference between decision criteria that have an unlimited range and those whose application is limited to certain discussions is essential to the encyclopedia. The connection between actual concrete problems of exposition in certain fields—for example, that of “the compatibility of behaviorist and psychoanalytical sentences”—now becomes conspicuous. The recommendations concerning discussion and exposition will become more pliable when the final court of appeal for their formulation and validity range is constituted by the particular problems of the field in question. When they immediately are elevated to the status of rules with universal validity, it becomes more difficult to change them according to the situation in a given area of debate: they take on a value of their own, and an “idolization of auxiliary concepts” (Frank) is hard to avoid.

Rules for discussion and exposition are often postulated indiscriminately for large areas of discussion and with no clear explanation of the purposes to which they owe their existence. The so-called psychology in physicalism has convinced me that such rules lead to violation and oversimplification of the factual situation in those areas. The problems of psychology and the many valuable attempts to find compatible solutions for them are so complicated that any reduction of their terms must take place from the inside, with attention given to each discipline and to each attempt.

More than once I have characterized Neurath’s idea of an encyclopedia as a further development of the empirical movement. The discussions about physicalism and protocol sentences may have appealed to philosophers, but the encyclopedia project appeals to a wide circle of empiricists who personally are disinclined to take a position on theses of the most general kind, such as those on physicalism or decision criteria. As Carnap and

Neurath have emphasized, it is very possible to work on the encyclopedia without assuming such theses. What is revolutionary about the encyclopedia project is—partly at least—that one aspires to and also assumes the possibility of a more intimate and many-sided cooperation than has been realized in any collective scientific labor hitherto.

There is one exception to this: work that has been achieved by men subscribing to the same ideology. The encyclopedia of the so-called Encyclopedists of the eighteenth century was primarily the work of an ideologically homogeneous group. The plurality of problem types in present-day science already makes it improbable that a reliable encyclopedia could come into being if the task were left to such a group—even advanced methods of collaboration would not suffice. Neither a unification based on a common ideology nor one based on an “upward identification” (as, for example, in the institution of a strong *fürher*) would do it.

In the opinion of the new encyclopedists, the required cooperation can, however, be achieved as a natural evolution of tendencies already discernible within the special sciences. The scientific behavior that is displayed in the investigation of objects belonging to more than one science shows that the special sciences are more strongly related than the conceptual apparatus they have in common might make one think. When a biologist, a physicist, or a worker in the Zeiss lens factories tests an observation statement by means of a microscope, then already the manner in which he positions the instrument on his desk shows that he has some knowledge of a psychological kind—about the distribution of light and shadow, psychologically adequate working methods, and so on. The results he obtains in testing a nonpsychological statement will depend on whether his positioning of the microscope on the desk was compatible with psychological-physiological knowledge.

Opinions may differ as to why the conceptual apparatuses of the various sciences offer so little information about this kind of unity. It is so little known that one is still inclined to assume, for example, that a physicist regards objects merely as heaps of electrons and protons, and that a psychologist sees them only under the aspect of stimulation of the sense organs. The conceptual apparatus of a science is, in fact, treated as foreign to ordinary language as well as to nonverbal behavior (for example, the manipulation of instruments). History teaches us that such a separation of science from

everyday thought and language will in general be exploited ideologically in directions that run counter to the empirical attitude. As Carnap has emphasized, the significance for the encyclopedia of a logical investigation of the sciences is precisely that, through formalization and unification of the linguistic instruments, terms can be introduced in such a way that this separation becomes absurd.

The unification of the sciences may seem to be a relatively clear-cut task, provided one does not try to tackle the problems of border areas and interconnections (as, say, those between biology and physics). However, a task of this kind is closely related to that of promoting the empirical movement. The difficulties are so great that attempts to bridge them end up by compromising with empiricism. At this delicate point the “systems” are brought into action, so that one feigns a unification of the sciences or else subsumes all of them under an external authority such as philosophy or religion.[23] One finds a higher “identity” that creates “order.” As long as the border areas of the sciences are not cultivated with the utmost care, they are dominated by the “autistic mode of thought” (Bleuler 1921)⁹; in between the various specialties, idyllic sanctuaries remain where the tired scientist can nurse his private garden of articles of faith, well protected against the exacting norms he assumes for work in his own special field. Such sanctuaries are, for example, provided today by the “philosophical consequences” that are being drawn from the uncertainty relation, but other problems also offer the opportunity for particularly lovely weekend trips.

The borderline fields are so large that the few who cultivate them cannot be expected to be as reliable and as free from airy speculation as persons working elsewhere. The heaviest battles between empirical and antiempirical tendencies are fought precisely in these fields. Because the questions at stake are so hard to survey, no weapon will promote empiricism in each and every case. Decision criteria and theses like those of physicalism presuppose that the Good and the Bad are as distinct as fairy tales would make them. The existence of a formulation that will unite the empiricists of one area of debate does not guarantee that the same formulation will not encourage pure speculation if applied to other fields. Although there can be no amulet that will protect against antiempirical tendencies, an encyclopedia seems to me the best guarantee for an adequate expression of the empir-

ical attitude. Neurath's encyclopedia as planned is intended to stress borderline questions and questions of cross-connections between the sciences, which greatly enhances its importance for the empirical movement. It would be a mistake to hope for solutions—or suggestions for solutions—to border-area problems. The position of empiricism can be strengthened without such solutions; for empiricism is strengthened already by the evidence we have that one can get by in a border area with those modes of inquiry that have proved scientifically valuable in other fields. The proviso that future work would probably lead to modifications of the formulations of the problems also strengthens it—albeit not in the eyes of those who already are in the possession of “solutions.”

The exponents of the various psychological schools are driven by competition in the market: they vie independently of one another to construct elegant solutions to all the “profound” problems so as to demonstrate the unlimited reach of their own habitual ways of construing scientific questions and the unimportance of all others. It is hard to suppress the belief that even a loose cooperation would bring about a considerable unification of the way of defining the problems in psychology. A first step in that direction will be taken as soon as claims to universality and autarchic demonstrations in the form of theses or so-called solutions are abolished in favor of research programs. Psychoanalysis, Gestalt psychology, individual psychology, *Sexualökonomie*, and behaviorism, to mention only a few, all boast of formulations that are supposed to prove the autarchy of their particular phrasing of problems.

The disappearance of universal solutions would further the empirical movement in two ways: in the first place, by eliminating pseudoknowledge and concentrating attention on practically solvable questions through cross-connections between the schools, and in the second, by completely changing psychology's appearance in the eyes of those who are not professional psychologists. For nonprofessionals, it is hard to distinguish the serious activities of psychologists from the more cheerful ones. When, for instance, one takes the center of gravity of Freud's contributions to lie in his postwar publications and that of behaviorism to reside in its “counterformulations” (*Abwehrformulierungen*) against misuse of introspection, psychology dissolves into a chaos of general and mutually contradictory doctrines. Since these doctrines have a degree of generality that

hardly is inferior to that of the doctrines of speculative philosophy, and since the critical spectator can discern no differences pertaining to the reference material, the impression is created that the situation in psychology is very much worse than it in fact is. That makes it even more tempting to give oneself over to speculation and to pay but little attention to the teachings of professional psychologists. So, whoever wants to promote empiricism clearly takes on a serious task. He must, however, choose a line of attack that is genuinely more practical than those chosen by earlier, philosophically minded positivists and empiricists. He will often have to renounce the theoretical superstructure of his activity or else change it from the bottom up.[24] From the task of unifying science by promoting work on the border questions and clarifying cross-connections, yet another type of task comes to the fore: that of furthering the expansion of scientific modes of inquiry. This is not really a distinct kind of task but rather is contained in the ones just mentioned. Already, in the attempt to unify the language of science—more or less in the way Carnap sees this task—we can see the appearance of problems that have not yet been formulated very clearly and that deserve just as careful a treatment as any problem in wave mechanics.

Summary

Empiricism can be promoted today by unburdening it theoretically. This means:

1. Promotion of teamwork in fields in which there is no tradition of that kind. The main goal is to attain a homogeneous degree of reliability (and precision) of formulations in the total area covered by the team. The intellectual standards that an individual assumes within his own specialty should be extended to the cross-connections with other specialities.
2. A broad and reliable treatment of problems arising from attempts to unify large areas through teamwork. Cultivation of conceptual analysis and of the history and sociology of science. Formulation of recommendations for the unification of modes of discussion and exposition.
3. Formulation of recommendations for sharpening the linguistic instruments of certain groups. Analysis of the consequences of adopting a given linguistic model. A study of the syntactical problems of science.

4. Fight against autistic thought. Furthering of the investigation of scientific behavior as one type of “complex behavior.”
5. Active opposition to the inclination to impede the expansion of scientific inquiry by relying on insufficiently justified systems. Opposition to all utterances that implicitly or explicitly take some formulation of empiricism as final or closed. This recommendation is a consequence of my feeling that the more adamant aspect of empiricism is a general attitude, rather than linguistic observance.

Appendix I: Added in 1956: Notes and Comments on the Paper Written Between 1937 and 1939

[1] Here so-called definitions of empiricism are implicitly criticized. These definitions have a solid basis in the philosophical terminological tradition. I endeavored to change the terminology in such a manner that so-called empirist philosophers could still be called by that name, whereas the usual definitions would eliminate them. This goes for the normative as well as the descriptive definitions. In this connection I assumed that I had found the most important and most valuable elements of empirist philosophy and that precisely these elements went unmentioned in the usual definitions of empiricism. This was, of course, a rather daring assumption.

[2] In the text “empiricists” and “antiempiricists” are spoken of as if a good normative definition of empiricism were already at hand. Since I did not accept the current definitions, the reader may well ask in which sense I used this expression. This is unfortunately not made clear in the treatise. I believe I would be prepared to endorse the following.

Locke, Berkeley, Hume, and Mach, among others, may be characterized as representatives of empiricist philosophy. The most important and most valuable contribution of these and other empirical philosophers does not consist in their explicitly formulated theses, and most definitely not in those formulations by which their doctrines are rendered in philosophical lexicons and textbooks. Rather, it consists in their efforts for the empirical movement, deriving from the empirical attitude.

By “empirical movement” I mean here an expansion of scientific research whereby new fields are constantly made objects of research. Research has a scientific character whenever a continuous intersubjective revision is

made possible and carried out and when one systematically seeks to test prejudices; furthermore, when knowledge of the object is ascribed an intrinsic value. Thereby an indication has been given as to what is meant by “empirical movement” and “scientific character.” The empirical attitude from which the empirical movement springs forth will not be further defined. Nor will it be said what is meant by “metaphysics.” As a first attempt at a definition the following might be useful: a nontestable philosophical standpoint that is defended by an appeal to intuition or to a priori points of view.

In statements in which the term *metaphysical* is used dyslogistically—and this is almost everywhere the case—its replacement by *antiempirical* will not cause serious difficulties. “The metaphysical movement”—an expression admittedly not in use—could be used as a designation for the always recurring tendency to object to scientific research with an “Up to here, and no further!” Thereby one attempts to demarcate problem areas where Hume’s “disinterested attitude” presumably cannot gain ground, or to contest the continuity between all areas of research, appealing to an allegedly separate philosophical sphere of knowledge.¹⁰

It does not seem advisable to use the terms *metaphysics* and *metaphysical* in this sense. On the other hand, it does seem to me desirable to introduce the term *antiempirical* to standpoints that encumber the empirical movement or threaten to thwart it.

In this treatise, I have tried to explain that one cannot set up any useful criteria for a statement’s being or not being compatible with the empirical attitude; furthermore, that it is possible to carry out a philosophical discussion in such a way that it becomes easier to discover and correct antiempirical theses and tendencies, if any.

Against my attempt to reinterpret some of Neurath’s, Carnap’s, and Hempel’s theses as rules of thumb for scientific discussions, one might object that these theses were not meant as mere rules for debate but as philosophical statements. This objection, however, is justified only when one employs the terms *discussion* and *debate* in another sense than that in which I use them. To characterize what I mean, the word *dialectic* might be preferable, whereby one will have to distinguish between eristics (rhetoric) and dialectics, between sophistics and philosophical investigation, roughly in the way that Aristotle and Plato did. In my terminology the debate or di-

alectic constitutes a part of the scientific process, namely, a systematic intersubjective verbal communication whereby misunderstandings are eliminated and the various standpoints undergo the necessary precization¹¹ (*Präzisierung*), so that recommendations for research programs may be subjected to testing. This is not meant as a normative definition but rather as an approximation of a real definition. A normative definition I would formulate in such a way that rules for thematic (objective, to-the-point, *sachliche*) discussion would occur as the definiens.

Understood in this way, the philosophical dialectic (*dialektiké*) seems to me to be today a new edition, of immediate interest, of the classical dialogue (*dialogon*), insofar as this was not merely a literary form but a method for the joint labor of several philosophers. Rules for this kind of dialectical discussion are of high scientific and philosophical import. That is to say, when one reinterprets certain theses as recommendations for such rules, no devaluation of these theses is involved.

[3] In 1938 I was hardly justified in assuming that the direction of this treatise corresponded to that of Carnap, Frank, or Neurath. When I, nevertheless, voiced this assumption, it was more as a hope or a wish than as a well-founded conviction. The conclusions of the treatise contradict, for example, the plan of the *Encyclopedia of Unified Science*.

[4] The reference to *future* research is of the essence. As a social reformer, Neurath was interested in making use of the scientific achievements that were already on record. What mattered to me was, above all, to emphasize our ignorance and to motivate the efforts of the empirical movement in that way. This was the main reason for my definite rejection of attempts to construct an empirist philosophical platform in the form of general theses.

[5] The following are examples of demarcation criteria that do not satisfy the conditions formulated in thesis 1.

1. Incompatible with the empirical attitude are those and only those standpoints that presuppose other sources of knowledge than experience.
2. Only those standpoints that can be corroborated by means of sensory experience are compatible with the empirical attitude.

3. Only those standpoints that presuppose the existence of a priori synthetic statements are incompatible with the empirical attitude.
4. It is incompatible with the empirical attitude to accept unverifiable statements.

If these or similar theses were tenable, I would not regard the empirical attitude as something valuable but as something harmful. If everyone who rejects the “empirical attitude” as characterized in these theses is to be considered a metaphysician, then I must be reckoned with the metaphysicians.

[6] By “empirical movement,” I understand an expansion of the empirical attitude, so that it can continually take effect in new fields, and with increasing consistency and clarity. Such an expansion has been occurring, in fact, since the time of Ionian philosophy, although in certain periods one has to register setbacks. In my small publication *Tenkningens utvikling* (The development of thinking) I made this point of view the cornerstone, although it could hardly be applied to recent years. An introduction to the history of philosophy according to this point of view would require serious changes in the usual arrangement of the material. Only a professional historian would be able to carry out such an undertaking in a satisfactory manner. An improved version of “The development of thinking”—under the title “The development of research,” perhaps—might on the other hand be a stimulant, especially for foundations research in the separate sciences and for the investigation of the relation between philosophy and the separate sciences. (Of course, such an exposition ought not to be obligatory for all students.)

[7] In the circle around Moritz Schlick (after 1938) and in seminars led by him and Friedrich Waismann (now at Oxford), psychologists were sometimes present. The participants were occupied with the “clarification” of psychological sentences, seeking to find and formulate their “meaning.” It thereby turned out that this “meaning” often differed from what the psychologists thought it was, and in many cases no meaning was found at all. These sentences were deemed “meaningless,” although those who used them had for years been of the opinion that they had uttered meaningful locutions. These discoveries were brought about thanks to the criterion of meaning used in logical positivism when the latter was still identical with the Vienna Circle.

My sympathy was with the psychologists, especially when the “clarification” culminated in a decision about which problems within certain sub-disciplines of psychology were to be regarded as pseudo-problems and which were not. It was not easy for the psychologists to refute these charges, which they often felt were unjust. Meanwhile, they used a form of indirect defense that seemed to me effective: they challenged the philosophers to familiarize themselves more closely with psychology and to get to know the research situation that they, the psychologists, tried to master in their investigations and expositions. They held that the clarification then would lead to other and more fruitful results. The philosophical insight of the psychologists was, however, not sufficient to enable them to influence the work in the seminars to any noticeable extent.

In this treatise, I tried to take the psychologists’ demands and similar demands from other research workers into account without throwing overboard what is valuable in these clarification endeavors. In the case of the psychologists, the clarification process could be approximately as follows: When a participant makes a statement *A*, whereas someone else states non-*A*, and it is unclear in what the difference consists, then both participants are to indicate the conditions—which must be possible to realize in a research process—under which they would regard *A* as verified (or corroborated) and responses falsified (weakened). If both were of the opinion that there are no such conditions, then this would count as an indication that neither a continuation of the discussion nor additional research would contribute to the elimination of the verbal difference of opinion between them. At the same time, it would count as an indication that their verbal disagreement is not connected with any more-than-verbal (*sachliche*) difference of opinion.

The spokesman for a philosophical clarification would, then, act as a broker and middleman, not as a judge. He would recommend lines for an effective discussion, lines that would have to differ according to conditions. Instead of pragmatic, logical empirist, and operationalist meaning criteria, series of discussion modes for various situations would emerge. A spokesman for philosophical clarification can very well hold opinions as to the question of cognitive meaning, or about the question of the relationship between cognitive meaning and testability. He should not, however, bring his own opinions about these uncommonly abstract and difficult questions into a clarification task of the said type. Such a task can be carried out with

more success on the basis of simpler and more easily tested premises. The aim is to unburden the task philosophically and to tone down the pretensions connected with it. If that does not happen, then one clearly disguises the fact that more or less expedient rules for discussion and exposition are quite something else than general for cognitive meaning. Research is applied only where one sees gaps in our knowledge.

[8] I have held physicalism in esteem as an important and valuable trend because in spite of its deficiencies it gave expression to the wish to transfer the humble respect of the student of nature for the object of his research, and his readiness to study this object for its own sake, to other fields of learning. In philosophy, the manner in which one approaches one's field of research very often appeared to me to be emotional and sometimes even plainly hysterical, and furthermore ideologically suggestive and not seriously meant. This holds in particular for discussions about the concept of truth.

The uncommonly abstract and general theses of philosophy seemed to me to indicate a deficiency of interest in one's object of research. One has not seriously thought about the possibility of exceptions or about conditions for testing one's statements, nor about the exigencies of an impartial discussion. In this respect, too, the discussion about the concept of truth appeared to me to be the prototype of philosophical working habits.

[9] The logical empiricists showed great enthusiasm for research and great disgust for the lack of clarity demonstrated by the philosophical schools. When they nevertheless could believe in physicalism and in meaning criteria in the form of theses, then this seemed to me to issue from an uncritical attitude with respect to a certain field, namely, that of language. The logical empiricists intended to stick to the logical aspect of language. When one looks more closely, however, it turns out that they made assumptions about uses of language and not about meaning. Here empirical (not logical) research would have been appropriate. I believed that one could purge logical empiricism of antiempirical tendencies by a program for purely empirical studies of linguistic usage. Precisely such research, without further intentions, seemed to me necessary (1) to counterbalance a form of "logical analysis" that strictly speaking was not logical, and (2) to create the preconditions for the construction of a system of exact concepts intended to cover all empirical fields of importance in the philosophical discussion.

This program was frequently met with distrust or rejected as "psychol-

ogism.” This seemed to me to confirm that an essential weakness of the empirist philosophy of that period consisted in its neglecting to promote empirical research in the area of semantics.

Through later contributions, mainly by Charles W. Morris, empirical-semantic problems began to play a greater role in logical empiricism. However, interest in these new areas of research went only as far as covering them under an inspiring terminology. The classifications and statements in Morris’s *Signs, Language and Behavior* could be tested only by empirical research; such research was, however, not encouraged. One let oneself be dazzled by the terminology so that the driving forces behind a patient investigation of accurately delineated areas of observation became even weaker than before the book’s appearance. The contrast between the demands that were made on concept formation in the exact sciences on the one hand and those in semantics and related sciences on the other seemed to me even more drastic than before. Later on, Charles L. Stevenson’s *Language and Ethics* played a similar role; empirical questions and statements were confounded with results issuing from empirical research.

[10] That Carnap was not clear enough on this point is a daring statement that I should have documented. I shall here try to produce that documentation, without being able to say with certainty whether the question treated here was already decisively important to me at the moment of writing the treatise.

A thesis in Carnap’s “Testability and meaning” (1936a: 464) may be rendered as follows:

For all reasonable interpretations of T_0, T_1, \dots, T_n , T_0 is a cognitive heteronym of each of the statements T_1, T_2, \dots, T_n .

T_0 stands for “On May 6, 1935, at 4 P.M., there is a round black table in my room.” T_1 is “If on May . . . somebody is in my room and looks in such and such direction, he has visual perception of such and such a kind.” For T_2, \dots, T_n Carnap indicates similar wordings.

It seems reasonable to interpret the expression “cognitive heteronym” in such a way that Carnap’s thesis holds. The proof he offers for this thesis, however, seems to me unclear or untenable. Carnap says that T_1 “is a universal implication sentence: $(x) [(x \text{ is } \dots \text{ in my room and looks } \dots) \rightarrow (x \text{ perceives } \dots)]$,” which we may abbreviate in this way:

$$(1) (x) [P(x) \rightarrow Q(x)]$$

This statement, however, entails the very improbable assumption that the sign \rightarrow in a given logical calculus somehow equals “if . . . then.” Moreover, according to Carnap, this relation between \rightarrow and “if . . . then,” which is not further elucidated, must enable us to “abbreviate” T_1 as (1) without further ado. Which empirical science guarantees that there is such a relationship? Which tested or at least testable hypotheses are available bearing on the relationship between \rightarrow and “if . . . then”? Carnap seems to assume that he only carries out logical operations (a logical analysis) on his way from T_1 to (1). Meanwhile, he gives his opinion on empirical-semantical questions. His demonstration has a logical air; that it belongs to a not-yet-available empirical science is obscured.

Starting from (1) Carnap attempts to prove, by means of calculatory rules, that (1) is true even if $P(x)$ is false, that is, when it is not the case that “ x is . . . in my room and looks. . . .” His “proof” consists in, among other things, reformulating (1) as

$$(2) (x) [P(x) \Delta Q(x)]$$

This transformation implicitly presupposes the validity of a definition of the type $p \rightarrow q =_{\Delta} D \neg p \vee q$. Thereby the step from (1) to (2) is presented as a logical step and not as an empirically relevant operation. However, the question of whether statements of the type “if p , then q ” are in fact cognitive synonyms of sentences of the type “not- p or q ” is of the greatest importance for the conclusions he draws. If the expressions “not,” “or,” and “if-then” were not used in the same way as in the calculus chosen by Carnap, then his conclusions would be rendered invalid. Who, however, has studied the factual use of these expressions?¹²

The next step in Carnap’s argumentation consists in the observation that both T_0 and $P(x)$ might be false, namely in case there is neither a black table nor an observer in my room. Since in that case (1) is true but T_0 is false, (1) and T_0 cannot be synonymous; hence they are heteronyms. The same argumentation is applied to T_2, \dots, T_n .

Carnap seems to feel no need for empirical-semantical research to find out in which sense statements like T_0 and T_1 are used in the circles to which

all this is addressed. On the contrary, the fact that he explicitly presents his argument in a chain of five or more steps gives the impression that he would interpret reservations about his argument as doubts about the validity of his deductions, rather than about his empirical presuppositions. He renders the purely logical steps in the proof very carefully, but he does not mention the empirical-semantic presuppositions. That is, he seems to have expected logical-analytical objections rather than empirical objections. In my opinion, however, one has much more reason to raise empirically relevant criticism here than criticism that has no empirical relevance. It would be appropriate among other things to investigate the relationship between the use of the expression “if-then” in ordinary language on the one hand and in logical calculi on the other. Carnap’s argumentation is built up in such a way that he does not in my opinion make it clear that T_0 cannot be reduced to T_1 .

By the way, I do not believe that T_1 can or could pass for a reasonable interpretation of T_0 . That was perhaps not even the case among the representatives of the “usual positivist opinion.” This is only an assumption, however. A thorough argumentation would take us deep into questions of the history of philosophy and empirical semantics.

The translation from the ordinary language of T_0 and T_1 to the symbolic language of (1) and back would take place in a series of steps. In my lectures on symbolic logic, I have tried to formulate these steps explicitly.

[11] This statement and the whole paragraph in which it occurs are a good example of how an individual C can fare who wants to pull an individual B out of the swamp into which he has sunk in his eagerness to rescue an individual A .

I (individual C) wanted to rescue the logical empiricists (B) from the antiempiricism in which they had ensnared themselves in their attempts to free human beings (A) from metaphysics—and what is the result? It seems that in the heat of the moment I have sometimes offered unusually comprehensive and indefinite statements without sufficient justification—merely to prevent the logical empiricists from delivering general and unjustified statements in their eagerness to free us from the uncommonly comprehensive, indefinite, and unjustified statements of the metaphysicians.

Maybe I wanted to point out that the conditions for a “not complete re-

ducibility” were so weak and so loosely connected with offhand interpretation and with empirical testing that, say, the statement in Descartes’s mechanistic metaphysics would have to be assessed as “incompletely reducible” to “physicalist language” (in Carnap’s wide sense of this term), rather than as completely irreducible. In other words, the conditions for incomplete reducibility do not amount to a refuge from metaphysics (in the derogatory meaning the word has in Carnap’s text).

[12] The act of replacing a formulation (a hypothesis) by a more precise¹³ one I call insular (as against “continental”) when it makes no difference to the hypothesis, because too many different interpretation possibilities remain. If, for example, logs whose diameters are to be measured are put into a thermoregulator so that the temperature differences in the forest cannot influence the length of the steel measuring rod, or if one pays attention to the thermodynamic theory of the extension of bodies when formulating hypotheses about the relation between the diameter and the age of logs, then we are concerned with insular acts of producing more precise formulations. For the sources of error with which one has to reckon as a consequence of such things as the degree to which the form of the cut deviates from a circle, are so great that the variations in length of the measuring rod become relatively small.

If symbolic logic is used to elucidate a thesis as indefinite as the one we discussed in comment 10 above, then the result is likely to be merely an insular reformation unless attention is paid to empirical semantics as well.

[13] This and the next section are taken from a small, unpublished paper, “Physikalismus und radikaler Empirismus” (Physicalism and radical empiricism; 1937). Neurath advised against publication with the argument that it in part contains attacks on standpoints that he and Carnap have already abolished.

The expression “radical empiricism” is meant to designate a point of view that logical empiricism would probably have to develop after having passed from an antimetaphysical to an ametaphysical stage. In agreement with the opinion that the essential contribution of logical empiricism in philosophy (that is to say, apart from pure logic) consists in its having created a possible basis for discussion, I have understood radical empiricism as a kind of common platform for effective philosophical discussion. Thus I wrote in “Physikalismus und radikaler Empirismus”:

I am interested in “radical empiricism” as an arena for discussions about foundations research, as an instrument for analyzing the historically given philosophical and metaphysical questions. When one enters such an arena one cannot at the same time take along all one’s favorite theses. It will be hard to find anyone who is prepared to play chess with me if I have already chosen a position such that my adversary, if he is not of a quite exceptional stature, cannot avoid a checkmate within three or four moves. The invitation from the physicalists is of this kind. . . . If “physical” is to be eliminated, then “psychical” should be, too. If “spiritual” is abolished, then “material” should be abolished as well.

[14] If the philosopher’s role consists in something else than to rectify the special sciences, or to erect an addition to existing sciences, then a person who wants to do philosophy, that is, logical analysis, should keep away from psychologism.

In the text I have tried to show that Carnap and Neurath practice psychology under false colors, and that I cannot personally be accused of the same fault. I use the basic concept ‘behavior’ in a sense that is neutral with respect to the “mental-corporeal” contrariety. That form of behaviorism that does not rely on corporeal support I have called radical behaviorism. The creed that statements of behavior are more easily tested when one tries to connect them with psychology is founded on unacceptable philosophical assumptions: “[a]n accompanying feature is a medico-pharmacological philosophy of drawers—a philosophy that assumes that no object is really scientific unless it can be stored as a compound or artifact, like for instance layers of nerve and cortex tissue” (Naess 1937).

[15] The argumentation pertaining to this quotation may be easier to understand if one starts with the following analogous sentence:

The average income of authors may be simply and uniquely determined by addition of their individual incomes and division of the sum by their number.

When the required material has already been collected and processed, this sentence gives us essential information. However, when we are not in possession of any material, or when the statistical value of our observations has not yet been examined, this sentence is of no help in getting us started on the problem.

Here “the procedure we have used to obtain [the sentence in question]

and to test it” is the processed observation material; “the logical analysis” is the calculation, carried out according to certain arithmetical rules. This analogy enhances what I wanted to emphasize in the text: if we want to test statements, we shall need the empirical sciences, so as to procure reliable material about how these sentences are used and about their connection with behavior. The older as well as the more recent meaning criteria of logical empiricism and of operationalism seem to presuppose a high degree of intuitive knowledge in the field of semantics, and they also presuppose that intentions can easily be communicated.

[16] I have tried to treat this point in the discussion of occurrence analysis in greater detail in *Interpretation and Preciseness* (1953 [SWAN I]). The variety of meaning hypotheses that fit a given material on occurrences excludes all arguments that presuppose a single cognitive meaning or only a limited number of cognitive meanings.

[17] In my paper “Notes on the foundation of psychology as a science” (1948: 25 ff.), I have discussed the relation between theory and practice in research. In the terminology introduced in that paper, one can say that the *Encyclopedia of Unified Science* was supposed to render extant psychological theories partly as research programs and partly as theories with a well-defined “primary predictional field.” This means, among other things, that theories should be formulated in such a manner that their limitations come clearly to the fore. On the other hand, differences of opinion would in many cases disappear, for they often arise precisely because theories are ascribed a validity far beyond their primary predictional field.

Since concept formation depends on the very theories in which the concepts are to be applied, a better delineation of the claims of a given theory would also reduce the number of concepts that occur in several theories. The common psychological conceptual structure is pushed into the background. One then will no longer have a need for many of the very general concepts with which one tries to characterize the various psychological schools today.

[18] What is said here agrees with my objections to meaning criteria that are formulated in the form of theses and therefore lead to infringements on psychology, that is, to judgments on which psychological statements are meaningful and which are not (see comment 7). The encyclopedist ought to take the role of middleman between psychological theoreticians, not that of a judge.

[19] When research is understood as a type of human activity, this sentence can be restated as follows: "Absolutism of action does not justify absolutism concerning hypotheses."

The investigator continually has to act on the basis of priority lists resting on conclusions drawn from dubious *pro-aut-contra* deliberations. The time and the energy he has at his disposal are limited; the field of research is infinite in all directions. If he wants to obtain results, he will have to concentrate on definite tasks. This often requires a certain amount of painful resignation, which may lead him to overestimate the area he has chosen and the significance of his results. However, the fact that a certain investigator has made an absolute (final, unconditional) choice does not justify utterances about his choice being the only adequate one in the research situation in question.

[20] In this appendix, physicalism is interpreted as a recommendation about techniques of discussion designed to prove the unity of science. The formulations that are offered in this section are, however, much too pretentious to serve as such recommendations. My intention was to underscore the fact that physicalist, operationalist, and related endeavors can contribute to the advancement of the unity of science. It was not my intention to discuss the problem areas within which they might turn out to be suitable as means of encyclopedic exposition, or the degree to which they might be suitable.

[21] The term *trivialism* is intended to underscore the fact that the seemingly fundamental oppositions between philosophical or scientific schools can often be elucidated only if one chooses a nonphilosophical, non-technical point of departure. In an (unpublished) paraphrase of Nietzsche, I once wrote: "Long live Trivialism!! Physicalism = the lab assistant's absolutism. If physicalism is rendered in a humanized fashion, out of its ashes mighty Trivialism arises—the cult of trivial linguistic habits, trivial concept formation, and trivial modes of behavior."

[22] The encyclopedia should, I think, primarily contain a survey of human knowledge; that is, it should above all describe the best corroborated hypotheses. Second, it ought to give information about research programs and offer prognoses about the further development of research. I believe Neurath shared this opinion.

Should philosophy be allotted a place of its own in the encyclopedia?

When one understands the concept of philosophy the way I have suggested on page 4 of my *Filosofiens historie* (History of philosophy, volumes 1 and 2, 1980), then philosophy can hardly be said to contain corroborated hypotheses—at least if the “corroboration” has to satisfy requirements of some substance. Of course, philosophical problems and assumptions could be taken into consideration in the description of research programs and research prognoses.

Neurath’s attitude to philosophy and my own basically agreed on this point. However, when the practical work on the encyclopedia was about to begin, differences of opinion surfaced. A long series of statements that Neurath ranked with the scientific truths (*Realsätze*) of the encyclopedia ought, in my opinion, to be regarded as philosophical statements, or else they must be reformulated and given the form of nonphilosophical research programs. It seemed to me that Neurath wanted to construct the encyclopedia as a comprehensive exposition of logical-empirist philosophy (see his various contributions to the encyclopedia).

[23] By philosophy, something else is meant here than in my later writings. Here “philosophy” means about the same as “antiempirist philosophy.” This corresponds to the linguistic usage of the Vienna Circle, whose members revolted against both of the mighty trends that at that time asserted themselves in Europe: German metaphysics (Heidegger, Hartmann, Spranger, and others) and Catholic theology and metaphysics. They admired the sagacity and consistency of the spokesmen of Catholicism, but they opposed their postulate about the existence of truths “above” science. They regarded German metaphysics as a danger for clear thought and conscientious research, in fact, for all mental life. In the politico-cultural respect they enjoyed, both trends outweighed empirical philosophy, and this seems to have contributed to the use of “philosophy” as a synonym for “antiempirical philosophy.” In Anglo-Saxon countries, where the position of empirist philosophy is far stronger, this linguistic usage seems less natural.

[24] Here and elsewhere I emphasize that when one wants to further the empirical movement, one ought to proceed in a practical manner. The word *practical* is here used in the sense given to it in pragmatist and voluntarist philosophy. Research is seen as a process in which certain actions, in particular those by which hypotheses are tested, play a decisive role. I

wanted to express that such actions are more valuable for science than is linguistic behavior without strong links with these actions. Meaning criteria, operationalistic theses, and physicalism are examples of the latter behavior. Discussion programs and research programs are, however, closely connected with the process of research.

The theoretical elaboration of the form of empiricism formulated by the logical empiricists ought to entail the abolition of antimetaphysical counterformulations. Empiricism ought, in my view, to be ametaphysical. I wanted to prevent Neurath's politico-cultural struggle with the German metaphysicians from having philosophical consequences. For this might be to the detriment of empiricism—at least in the long run.

APPENDIX II: Remarks on the Empirical Movement

A thorough investigation of an object seems to require that the investigator be, at least at the start, connected with the object by strong interests of a biological, social, or metaphysical kind—to use a triple classification taken from P. W. Zappfe (1941: 62).¹⁴

The history of geometry offers good examples of the significance of these three kinds of interest, not least the metaphysical-religious interest. In the sect of the Pythagoreans, the study of geometrical figures was often seen as the main task of its members. Thereby this study was made into a religious profession. Later, geometry was detached from metaphysical problems, although the latter continued to play a role as sources of inspiration. For the development of geometry it was now important that Greek mathematicians could devote themselves entirely to the study of geometrical relations without concern for the practical applicability of their discoveries. This field of research had acquired a value of its own.

The history of chemistry, too, offers numerous examples of the rule that science flourishes when interests external to genuine research recede into the background, that is, when the object of study and the research itself are ascribed a value of their own. In the exposition of the prehistory of scientific chemistry, one frequently employs terms that indicate the extrascientific center of attention. Thus one speaks of the period of alchemy (A.D. 400–1500) and of the period of medical or pharmaceutical chemistry (A.D. 1500–1700).

The same holds for the history of historiography. Originally, it was

mainly an instrument for the glorification of princes, dynasties, nations, and political and religious movements. Interest in the course of history and in research as such eventually acquired a greater significance, and historiography thereby developed into a source of knowledge. It has turned out to be possible to combine strong political, religious, or other interests with a high degree of objectivity in the treatment of historical material. People embarking on historical research to justify standpoints already taken have often been swept along by the dynamics of their research. They have felt obliged to give up the standpoint to which they were originally strongly committed. This they have not experienced as a loss but as an enrichment. As research workers they have—sometimes for the rest of their lives—engaged in an undertaking that exceeded their range of vision, but in which the efforts of an individual have their own independent worth.

The first steps in new fields of investigation can often be taken only when one has overcome the resistance of those whose interests are endangered by an expansion of research. Resistance sometimes arises because the expansion is taking place in an area in which certain people believe they possess pure knowledge, rather than in an area in which we all admit our ignorance. Here the development of chemistry may serve as an example. Any number of people, including several chemists, believed that they knew that organic substance could not be compounded from inorganic material. This conviction obstructed research in organic chemistry.

A further reason for resistance is to be found in the ideological importance of certain convictions. When the investigator does not confirm the results commonly held to be established knowledge in his culture, he must expect to be accused of destroying cultural values.

For all that, the analysis of already acknowledged parts of human understanding is an essential factor in preparations for new research efforts. If we do not have a strong and lasting conviction that our knowledge has defects and gaps, then we shall hardly be able to muster the energy needed for a long and intensive period of research.

The empirist tradition in philosophy is, in the main, in character with the expansion of research and therefore in opposition to attempts to portray human knowledge as conclusive and exhaustive. It is destructive inasmuch as it tries to dispose of everything that impedes free research.¹⁵

Whoever wants to participate in improving the conditions for a further

expansion of research cannot avoid feuds with points of view that seem to obstruct it. In the heat of the moment, one may easily succumb to the temptation to formulate general statements uncritically and to ascribe to them a much too high degree of certainty. This has a negative effect on motivating research in fields in which research is needed.

The brilliant contributions of logical empiricists in many border areas in contemporary science were partly inspired by a strong confidence in their criteria for cognitive meaningfulness, in physicalism, in symbolic logic, and in encyclopedic procedure. This confidence was exaggerated. Besides, it had a negative effect on motivating the investigation of empirical-semantic questions, the relationship between natural and symbolic languages, techniques for discussion as instruments of an empirically oriented philosophy, and so forth. On the other hand, if one invites others to employ a certain technique of discussion, then it is not necessary to rely on the general assumptions of the logical empiricists. One can further the empirical movement just as well by trying to bring about a positive motivation concerning investigation of the problems in question.

From the point of view of the empirical movement, it is important to distinguish between enthusiasm for science and enthusiasm for research. Enthusiasm for science easily leads to overestimation of available knowledge so that problems that presuppose doubt as to the foundations of this knowledge are pushed back. Enthusiasm for research as such counteracts this tendency. To embark on a research program, one has to make a series of assumptions that serve as provisional working hypotheses and that are changed and improved along the way. It is seldom useful to the investigator to believe that his own assumptions have a higher degree of certainty than what is strictly necessary for a good working hypothesis.

The relation between enthusiasm for science and enthusiasm for research can be elucidated by investigating how certain people react to parapsychology. Enthusiasm for science as we know it can elicit aversion or above-average scepticism toward parapsychological experiments (for example, those of Rhine et al.), although these experiments are hardly methodologically inferior to psychological experiments that are recognized as up to standard. Those who value research highly will find the possibility of a revision of our physical knowledge as a consequence of parapsychological experiments a particularly enticing prospect.

The belief in science as we know it today can impede the progress of research in various ways, such as by allowing the idea to arise that the unknown corresponds to the white spots on a map of the world. Even when we imagine such spots to be very large—even when we imagine a globe on which only a tiny green island has been inscribed with a bit of blue sea around it, everything else being left white—I believe the analogy to be false in a particular respect. The green island would form a part of the surface of the globe whose area could be determined in relation to the globe. Also, in this picture one would imagine that the island corresponds to a bit of definitively secured knowledge.

A system of scientific classification can also turn out to be disadvantageous to the expansion of research, namely, if one assumes such a schema to be something more than an ad hoc classification, adapted to certain technical bibliographical needs and the like. This especially holds of the classification of the sciences, which Auguste Comte took as fundamental in his *Cours de la philosophie positive*. By giving us the moments of birth of the sciences separately and by a system said to encompass all objects of research, he pretends to be able to place future research within certain areas. Thereby the unknown is in a sense encircled, much as the white spots on the map of Africa when the whole African coast had become “known.” For example, psychology as a science is represented as firmly delineated, so that unexplored fields can only be situated inside. The same goes for other sciences. This idea of an eternally fixed system of main sciences can hamper research, for example, when the research program depends on working hypotheses that implicitly go counter to the classification in question.

Logical Empiricism and the Uniqueness of the Schlick Seminar: A Personal Experience with Consequences

In what follows I shall speak about many phenomena, but what I wish to convey more than anything else are the positive aspects of the rightly famous seminar headed by Moritz Schlick in the years before he was shot on the stairs of the University of Vienna in 1936. The characteristics that I shall describe made the seminar unique. I have taken part in a wealth of good seminars before and after 1936, but my experience as a participant of that seminar makes it, for me, stand out as unsurpassed.

When for the first time I entered the room where the seminar was held in 1934, I did not know what had been happening there. I had heard nothing about the seminar or about logical empiricism in general. It took less than an hour for me to understand that something very special was going on there. In the autumn of 1935, when I left Vienna, I did not yet realize how much I had been influenced.¹ It is only recently that it has become clear to me what I found so deeply inspiring—what touched both my heart and my brain. I shall permit myself to trace how the experience affected my later philosophy.

The seminar was headed by a “professor ordinarius,” a prestigious title in the context of central Europe, but Dr. Friedrich Waismann was the actual leader. Both men were culturally well established, mature scientists and philosophers. There were other well-established personalities. The first feature to be mentioned is the participation of mature, independent, established personalities. The second feature is the unmistakable diversity of

This article was reprinted with permission from *Scientific Philosophy: Origins and Development*, edited by Friedrich Stadler (Dordrecht, Netherlands: Kluwer Academic Publishers, 1993), 11–25.

their characters. Obviously, not only from what they were saying, but from their body language and manifest attitudes in general, they had to have different opinions and this would have to color their philosophy.

With the third feature, things start to be interesting: both the core members of the seminar and the visitors—about ten people—were seriously engaged in one and the same great undertaking. There was an atmosphere of eager cooperation. Something very great was being built, and any contribution, however modest, was appreciated. There was room for all. Opinions differed, but then it was essential to ask, Is the difference serious? exactly how serious? Perhaps minor, perhaps all to the good: there ought to be no *Gleichschaltung*.

The next two features to be mentioned concern a central phenomenon: the character of communication in matters of philosophy and ideology.

Compared with terminology in, say, physics and chemistry, terminologies in philosophy tend to be vague, ambiguous, unclear. Or to be more precise, the words and sentences may be unambiguous and clear to the speaker (the “sender” of the communication) but not to the receiver. How did the seminar tackle the inevitable conflicts arising from this situation? Let me give an example.

A participant puts forth an opinion, using a sentence *T*. A second participant, probably thinking the opinion is not tenable, speaks up, “Würden Sie (würdest du) die Formulierung *U* akzeptieren?” (“Would you accept the formulation *U*?”). A special opening gambit was invented by the young Walter Hollitscher: “Das ist vielleicht nicht eine glückliche Formulierung . . .” (“That is perhaps not a happy [fortunate] formulation”). It is implicitly clear that the second participant puts forth *U* as an expression for the same formulation that the first participant tried to express by *T*. The first participant is *invited* to give his opinion about a somewhat different formulation that perhaps would make listeners better understand what he wishes to convey. It is mostly also implicitly suggested that if the first participant rejects *U*, the second would tentatively declare that *T* expresses for him an opinion he does not find tenable, but that what *U* expresses he can accept as a tenable opinion or hypothesis. If the first participant rejects *U* as an adequate expression, he may himself substitute *V*, a third sentence, for *T*, and the serious “game” would continue.

What struck me as *mustergültig* (worthy of being a model) about this

procedure was the effort not to declare *lack of agreement* until careful verbal investigation had eliminated the undesirable effects of terminological idiosyncrasies, *and* the choice of a conciliatory, building-up-the-other way of clarification. “I disagree” has a tendency to awaken defensive countermeasures, often leading to unfruitful discussions—even a hurt ego, or at least a lust to win an argument. A careful procedure makes it more likely that when disagreement is declared, it is a real disagreement, and an honest one.

The fourth communication feature I wish to mention is the care taken not to use that-sentences like “So-and-so has the opinion that such and such.” Such sentences imply unambiguity and the general, agreed upon clearness of the “such and such.” Instead, expressions like “So-and-so says *T*” and “So-and-so formulates his opinion this way: . . .” are used. It is not taken for granted that the group has already found an adequate expression of one and the same opinion.

(My later extensive use of the term *formulation*, rather than *sentence*, is probably influenced by the Schlick seminar!)

Now, the fifth feature of a way of communication in philosophy and ideology is the most radically important. We often search for words to express our thoughts. We imply that the thought is already there, but that it is difficult to find a completely adequate and accurate verbal expression. Perhaps less often, we wonder what exactly we meant, if anything, when we said such and such. The above-described features of communication in the Schlick seminar made it completely natural to doubt that we meant something very definite when we listened to our long strings of words. Fixing the attention on words, phrases, or sentences, but not that-sentences, made it easy to admit at least to ourselves that we were not quite clear in our heads—that we in a sense were only vaguely aware of what we might be talking about. Our talking was like our walking: we did it in the habitual, familiar way, practically like automatons. Very rarely did it reflect clear thinking.

Suppose the question is whether a theory in science can be falsified. Some of us were, so to say, instinctively opposed to the possibility of falsification in any strict sense, but what did we mean by “strict sense”? by “theory”? by “(practical, theoretical, empty) possibility”? If we were talking about what usually was classed as a physical theory, there were disconfirmatory instances—but what more? Every definite series of observation sen-

tences rests on indefinitely numerous assumptions that are not all—or perhaps none—strictly speaking verified. Did we ever mean anything definite by falsification of a theory? Karl Popper did not clarify what he meant—so it seemed to us.

The often unsuccessful search for what we ourselves meant by things we had said—perhaps said 100 times!—resulted in a kind of humility. How could other people, doing research with a completely open mind, assert that they knew exactly what they meant?

A few years later, I had the opportunity to talk seriously with one of the very few internationally well known Norwegian masters of mathematical logic—Thoralf Skolem. I asked him whether he was sure he knew *exactly* what he meant when he wrote in his articles that “this is now proved” or some similar phrase of the kind *quod erat demonstrandum*. To my great disappointment, he answered yes—after some hesitation, I admit. I thought the history of mathematics showed how it often seemed clear after some years or centuries that those who had proposed criteria did not realize that these were unclear, ambiguous, or, strictly speaking, not universally applicable. Fallibility seemed to be clear in questions of what one means by *proof* and by other central metamathematical terms.

Through experiments I later tried to assess the *definiteness* of intended meanings among students of the exact sciences. How did they interpret “The Earth is surrounded by a gravitation field” when they heard the sentence in a speech I gave? They were offered twenty interpretations. The answers I liked best were the *nescio*-answers, the “I do not know” answers. However, most answers (more than 150 out of about 200) revealed that the respondents thought they knew fairly well how they interpreted the sentence. The Schlick seminar certainly was apt to spur a lively interest in the limitation of human definiteness of intention. In philosophy and ideology it takes more courage, it seems, to admit this than it takes in the exact sciences. The reasons are not without interest.

These five features of communication can thrive only among people with a certain—what I am tempted to call—Gandhian nonviolent approach. One must be able and willing to look for interpretations that make one’s opponent reasonable, not just those that make him unreasonable, ignorant, or stupid. In the late 1960s, when seminars on philosophy of science were held with a strong representation of students of the Frankfurt school,

these members tended to think of discussion in terms of confrontation rather than cooperation. The Gandhian traits smacked of what they liked to call positivism. Carnap would have had no chance to be heard! It is easy to be mild and fair when you are not passionately involved. Carnap and others combined intellectual passion with a Gandhian approach to communication.

To my sincere regret I find today that nearly all of the most active participants of the seminar in 1934–1935 are dead or ill. Therefore, I shall now convey a selection of my impressions of the participants, using my own fallible memory as a guide. Because of my many new interests since the 1930s, I have not read the impressions that others have published.

About the established leader of the seminar, Moritz Schlick, I have little to say. Few of us had any access to his private life. We perceived him as somewhat distant and we called him an aristocrat. He did not talk very much. When a discussion led us into an impasse, he might ask, “What would Wittgenstein say here?” When somebody offered a quotation from Wittgenstein’s writings or from his remarks in seminars or private conversations, it was clear that only very, very clever interpretations could be accepted. Like interpreting Ibsen in Norway.

It was the expectation that at least Friedrich Waismann would have an answer to Schlick’s difficult question. He was the “leader in action” of the seminar, and we all acknowledged his expertise on that slightly mysterious subject—the (correct) Wittgensteinian view. He and Schlick were the only active members of the circle who would totally advocate and defend Wittgenstein’s view—when they thought they had grasped it firmly. The fearful question posed by Schlick normally was followed by silence at first. Then Waismann would answer, but tentatively and hesitantly. Once someone suggested that a letter should be sent to Wittgenstein; but Wittgenstein was enigmatic and not a character one could expect to answer straightforwardly. We did not know it then, but at that time he himself was painfully rethinking where he stood. This whole situation exasperated Waismann. Perhaps that was why I gradually came to see him as a tragic person, humble and not quite knowing how to handle his life and his position in philosophical disputes.

His seriousness and humility manifested themselves in a touching

way. I was going through an intense psychoanalysis at that time. My analyst, the well-known Dr. Edward Hitschmann, wished it to be a *Lebranalyse* and arranged to send me to Pötzel Psychiatric Clinic wearing a doctor's outfit and being introduced as "Dr. Naess from Norway." One of "my" patients was a highly educated woman who, prodded by my scepticism, defended for hours and hours the view that President Franklin Roosevelt had tried to poison her. She brilliantly defended her system—it was truly impressive. Speaking as we often did in the seminar about coherence, I said in a private talk with Waismann that a paranoid schizophrenic seemed to satisfy the ultimate requirements of coherence better than he did. There was no smile on Waismann's face. Yes, he said, but then he wandered into difficult, seemingly depressive trends of reflection. Of course, I did not seriously mean what I said: if Waismann had been in bed with nothing else to do but answer my question, he would have managed to be very coherent, even in the formulation of a sophisticated methodology that gave room for extensive doubt and uncertainty. My patient had no doubt in relation to a long series of coherent arguments and conclusions, but that did not imply superiority. She had a definite dogmatic system at her disposal, whereas Waismann was basically bewildered, but not less coherent from a systematic point of view and certainly more coherent from a metasystematic viewpoint.

Schlick and Waismann were of a different generation than I, and I had more informal, daily interaction with some of the younger active participants.

Among the prominent young members of the seminar was Joseph Schächter. His work *Prolegomena einer rein kritischen Grammatik* contained views that were considered rather un-Wittgensteinian. He also had difficulties with "proper" appreciation of Russell and his "material implication."² It was not easy for him to publish his manuscript. I found his position unenviable. In the same category was the Polish-German logician and philosopher Rose Rand. She, like the others, considered Wittgenstein to be a genius, but she was of the opinion that he nevertheless was unable to express his opinions adequately. The style of the *Tractatus* she considered to be a manifestation of helplessness rather than of deliberate choice. Later she gave lectures on Wittgenstein at Cambridge, but her consistently hypercritical comments contributed to the termination of her teaching. She also

suffered a serious nervous breakdown. She liked to talk to patients in the Pötzel Clinic, considering herself a borderline case.

Listening to Schächter, Rose Rand, and others, it was understandable that I developed an ambivalent attitude toward the texts of Wittgenstein. Gottlob Frege and the Wittgenstein of the *Tractatus* seemed to belong to a vastly different tribe than that of Malinowski, my hero in the philosophy of language. Wittgenstein was a genius, but what follows from that? Nothing.

Outstanding in the clarity of his statements in the seminar was a man only a couple of years older than myself, I presume: Walter Hollitscher. His contributions to the seminar were always short, firmly expressed, and wonderfully clear. The prevailing view of the importance of language for philosophy got a marvelous expression. He invented the phrase “Es ist in der Sprache nicht vorgesehen” (“It is in language not foreseen”). The tendency that he opposed was to declare certain questions or answers in philosophical literature meaningless, and to bolster this view by recourse to beliefs in certain fundamental traits of syntax or semantics. Language could not be used for the purpose some philosophers had in mind. The philosopher pressed the language beyond or below its capacity. New theories of previously unheard kinds could be formulated properly, for example, that of general relativity, but there were limits that could not be transgressed without meaninglessness as a consequence. Hollitscher was remarkable in softening the “meaningless” dogmatism. More strange than remarkable was his ability also in managing to a large degree to combine membership in the Austrian Communist Party with a complete rejection of dialectical materialism—as *sprachlich nicht vorgesehen*—in its main features. On the other hand, he found hope for psychoanalytical theory. It could be reformulated in a scientifically acceptable terminology. I have talked about Walter Hollitscher at length also because he represented so well the high ethical standard of the discussions. However, he did not publish much, remaining in the background.

Whatever my philosophical disagreement with some of the main tendencies in the seminar, I wished to learn as much as I could from the proceedings in which I participated, and I was treated on a par with the others in spite of my dissonant views.

In the circle was a young man, Tscha Hung, from a country even farther away than Norway. Always cheerful and well-meaning, he showed in his attitude a deference, even a humbleness, markedly different from my

tendency to be as interested in proclaiming disagreements as noting agreement. His lifelong attachment to Moritz Schlick and Schlick's point of view I found and still find touching. This is not to underrate his independent thinking and achievement as a professor in Beijing in making the analytical trends known in China.

It was a habit of circle members to meet for hours in one of the cheap coffeehouses. There the discussion was even more lively than in the seminar. It was not easy for me to break into these fast-moving discussions. Sometimes I would suddenly and unexpectedly just say "Im Gegenteil" ("On the contrary"). There would then be a second's astonished silence and I could proceed at leisure. It was typical of the atmosphere that my youth was not at all an obstacle to complete recognition.

The seriousness, honesty, and persistence of Carnap in debates I had with him in Vienna and later in Los Angeles, where I stayed in his home for some time, left a profound impression—perhaps especially because he practically never found any reason to change his opinions on any matter whatsoever. He tried his best to follow my way of thinking, even if he did not expect to profit from it in his own research. He never showed the slightest impatience. (I did.)

On special occasions the core members of the Vienna Circle discussed the plans of the forthcoming International Congress for the Unity of Science. Here Otto Neurath was the central personality. He looked upon Carnap as highly impractical and excessively fond of long, logical derivations. Moreover, he viewed logical sophistication somewhat cynically, declaring that Franciscan monks were excellent logicians, implying in a sinister way that perhaps formal logic could accommodate Catholicism better than it could accommodate the scientific attitude. I shall not go into what was happening at these high-level conferences. The last one that was planned—to take place in Oslo in 1940—could not be realized because of World War II. Otto Neurath applied to the Norwegian authorities for residence in Oslo but was rejected by an anticommunist official at the Norwegian immigration office. What a shame! I shall now leave the account of personal experience and proceed to more abstract matters.

When I interpret a philosophical text, my point of view is that of a lawyer interpreting a will. Grammatical failures, strange uses of words, mis-

spellings do not count when one tries to find out exactly what the author of the will intended to convey in his will. If he calls his wine cellar the library, that is okay, if it can be established that this was the habitual way of talking in his family. Similarly, if a philosopher has strange ways of expressing certain opinions, one of the tasks of the historian of philosophy is to try out reformulations better suited to present his or her opinions. On the other hand, we may look upon the text as a musical or mathematical score and see which interpretation might be most interesting given certain purposes. The later texts of Heidegger, for example, have been freely interpreted by some environmentalists and found very useful. The logical empiricists, however, were too attracted to the exploration of one definite model of language, namely calculi with sets of formation and transformation rules, to be interested in the more empirical investigations of philosophical texts as presenting ordinary ways of talking. The ordinary ways are full of metaphors, pictures, unscientific phrases—as are those of philosophers through the ages.

Carnap seemed to accept a presupposition that he had philosophically adequate knowledge of what ordinary words and sentences of his mother tongue meant, including the words *true*, *probable*, and *certain*. Or at least he presumed that we have sources within ourselves of such knowledge: by painstaking reflection we should be capable of formulating that knowledge clearly. Some of it would be, in psychoanalytical terminology, *vor-bewußt* (preconscious). It can be made conscious without being hindered by forces of psychological repression.

The American philosopher Charles Morris embraced a sort of empiricism that offered logical empiricism a kind of alibi. He introduced the term *pragmatics* so that he could point to a trilogy: syntax, semantics, and pragmatics. What I was doing, Carnap said, was pragmatic, and he seriously wished me success, placing me in that coffer. What Morris was proclaiming, however, was empiricism, not pragmatism. I used social science methodology to investigate the various usages of *true*, *certain*, etc. For example, I offered subjects ten glasses, saying that they contained weak solutions of certain well-known substances. Could they please tell me what they smelled? “Are you certain?”, “Are you absolutely certain?”, “Do you truly smell anything?” Their answers were made starting points for an interview in which they copiously used the terms *true*, *certain*, etc.

Actually what they strained themselves to smell was pure water (which

was still available in Norway in 1936). How could the logical empiricists boast about a scientific attitude when they relied so much on intuition when speaking about the use of words?

If one is thoroughly imbued with respect for spontaneous experience in its immense richness, then it occurs to me that the interpretation of a text should be much more difficult than it seemed to be for Carnap. The words and sentences of our mother tongue have been judged vague and ambiguous since the time of Aristotle. Therefore, any texts that make use of daily-life vocabulary or define words in terms of everyday vocabulary will be open to a variety of significant interpretations. Being very much impressed by, and fond of, the Latin text of Spinoza's *Ethics* from the time of my school days, I did not entirely look down upon vagueness and ambiguity, and I thought that when we interpreted a text, we should formulate different *tentative* hypotheses about what the author might have intended to say. I did not believe that the members of the circle really had the preconscious knowledge they thought they had according to their fundamental presuppositions. Social science methodologies were needed.

Carnap willingly and patiently talked with me about this. I have never again had the opportunity to meet anyone with such wide learning and such basic humility. Somehow, though, he retained the conviction that, in the last analysis, his own interpretations were at least the only philosophically important ones. This was especially evident when it came to assessing the significance of Alfred Tarski's truth theory. This theory was an astounding victory of symbolic logic with great consequences for formalization. It mostly hits the nail on the head when one asks for precizations of the sentence " x is true" when x belongs to the assertions of a scientific text. It has been popularized through the following: "the sentence 'It rains' is true if and only if it rains." Carnap admitted that there was of course an important way of using the word *true* that was not covered by Tarski's definition. One could say, for example, that " x is a true friend." Then, however, one could also form an application of Tarski's theory: "' x is a true friend'" is true if and only if x is a true friend." By chance my master's thesis was about various usages of the term *true*, and for me it was important to stress that Tarski's definition applies clearly only to a subgroup of occurrences. Moreover, other groups are important in scientific texts, and relevant to pertinent philosophical questions focusing on the term *true*. Tarski himself ac-

knowledgeed later on a postcard he sent me that I might be right in what I said, but that his theory did not necessarily pretend to cover more than one way, a fundamental way of using the term from the point of view of logic.

Carnap detested Heidegger both for his politics and for his literary style. I agreed. One of the sentences that provoked him was the notorious “Das Nichts nichtet.” I said that Heidegger perhaps intended to assert something fairly definite by this atrocious utterance. Carnap repeated again and again that if (and only if?) Heidegger had stated his rules of formation and transformation, the sentence would be acceptable as meaningful. In philosophical texts, however, there is an abundance of “unacceptable” but potentially meaningful sentences.

I am today tempted to refer to a famous sentence of the relativist J. A. Wheeler: “matter tells space how to curve, and space tells matter how to move.” What would Schächter and Walter Hollitscher say about this sentence? I might suppose Schächter would say that the sentence violates logical grammar; Hollitscher, that *es ist in der Sprache nicht vorgesehen* that matter and space tell anything whatsoever. The supposition is wrong, however. The sentence is obviously meant metaphorically, and Wheeler can point to a certain set of equations and say, “This is what I mean in all seriousness. Any complaints?” Because general relativity enjoys top scientific status among the logical empiricists, they would treat Wheeler politely. To compare a Wheeler sentence with a Heidegger sentence would be seen as tasteless.

Empirical research might end with the tentative hypothesis that Heidegger did not mean to assert anything through his famous sentence, but that would only be one hypothesis among others. Carnap agreed to that, but did not find it very interesting. Roughly speaking, Carnap did, but I did not, believe in *Die Wende der Philosophie*, the syntax-oriented turn of the philosophical tradition. Carnap would listen patiently, but later, when I had included a description of his and of Heidegger’s philosophy in one and the same volume, he would complain seriously, as if it were an unfriendly gesture on my part. How could I, as an old friend, do him such an injustice? For Carnap, Heidegger was not only both philosophically and politically abominable, but also expressive of an influential and deplorable cultural trend. Carnap continued to write within his frame of thought but expressed his belief that I should continue my empirical investigations.

The younger generation was headed, one may perhaps say, by Carl G.

Hempel, another superbly clear philosopher with rare pedagogical talent. At an International Congress for the Unity of Science his elegant, formal-logical lecture was greeted with applause worthy of a great artist. A Polish logician contributed with logic on a high formal level, devoting most of his time to sophisticated, but microscopic, issues of notation. The trend was not going in the direction of combined logical and empirical research. Why exactly should very special formal-logical investigations be considered more important in philosophical research than empirical investigations? Neurath was slightly apprehensive; I was genuinely sorry. The task required the combination, and also the application to crucial social and political conflict analysis.

Otto Neurath was the leading spirit in what might be called the movement of logical empiricism. It is sometimes forgotten that analytical trends in philosophy after 1945 never had this color of a movement. That includes the groups around Willard Quine.

It is well known that Neurath liked to compare the trend from Ernst Mach to the Vienna Circle and then to the international logical empirical perspective with stages in the development of the movement around the French Encyclopedists. It was therefore natural that he should propose a kind of encyclopedia, the onion-shaped *Encyclopedia of Unified Science* demanding the collaboration of hundreds of people.

In a social movement, the moderate level of preciseness that Neurath represented, but Carnap disliked, would be absolutely necessary. The encyclopedia would have to be understandable to a fairly large sector of the population. It would not be enough to reach only people with very high formal educations. Neurath introduced a word that I found important: *Ballungen*. In English, one would perhaps say “sticky formulations.” They could be interpreted in slightly different ways, being in some sense elastic and adaptable to a variety of situations. It is a pity that the concept of *Ballungen* was not taken more seriously within the movement. It may have inspired my term *point-of-departure formulation* (T_0), the “target” of different analyses.

Carnap, of course, had no taste for *Ballungen*. He preferred to jump from the vague and ambiguous to the superbly precise and rest there. Neurath was elastic, proceeding from the vague and ambiguous as point-of-

departure formulations to more precise ones and back again. Every very precise analysis or reformulation leaves something out. Not a single more precise formulation would do in the long run, only a set of them: T_1 , T_2 , . . . T_n . At least this is how I believe I may have interpreted him.

An eminent psychologist, Egon Brunswick, roughly agreed with the main position of logical empiricism, and eventually it was decided that I should, together with Brunswick, write on psychology as a science. It turned out, however, that we disagreed about how this should be done and I left the task to my friend Egon. The organization committee of the encyclopedia was not sufficiently strong to press the authors of the monographs to complete their contributions. Nor did the authors agree on how to spell out “the foundation of the unity of science.” This seems to me to be one of the many reasons that “the second volume of the Encyclopedia ran into many difficulties, and . . . the studies by Federigo Enriques, Jan Lukasiewicz, Arne Naess, Louis Rougier, and Louis Wirth never appeared” (Morris 1960, 520). Such people are not easy to handle and be made to work together! They had been persuaded to write monographs but were not quite clear, I suppose, on exactly how to proceed. I am sorry to say it, but Neurath’s plan for an encyclopedia ultimately consisting of 260 monographs in twenty-six volumes plus a ten-volume *Visual Thesaurus*, although splendid, was quite unrealistic.

Diderot, in the “period of enlightenment,” found the time ripe for his twenty-six-volume *Dictionnaire raisonné des sciences, des arts et des métiers*. The economic and sociological insights of Neurath did not suffice to make him (or anybody else) see the time ripe for a second world war, a sterile Cold War, a mindless consumerism, with resulting waste of resources, and a population explosion threatening the richness and diversity of life on Earth. Being already heavily influenced by Mahatma Gandhi’s nonviolence and metaphysics, I did not find Neurath’s vision too ambitious. Dr. Hitschmann gave me articles that Neurath had published, one with the dedication “To Arne Naess who wills the great (*dem Großes Wollenden*).” Later my German colleagues called me what I cannot translate: “*der norwegische unverbesserliche Weltverbesserer*.” If Neurath had lived on for another twenty years, we could have worked together in the peace movement. We largely understood each other. Even his notorious *Index verborum prohibitorum*—asking us to refrain from words suggestive of subjectivist metaphysics—I

found acceptable in spite of my wise friend Philipp Frank's exasperation and ridicule.

Looking back, I feel sorry that the combined analytical and social initiative of the logical empiricists petered out. It constituted in the 1930s a cultural force and a threat against fascist and authoritarian regimes in general. The authoritarian Austrian government did not underestimate this threat, and the newspapers—which on the whole were on the authoritarian side—expressed relief when Professor Moritz Schlick was killed on the doorstep of the university. Logical empiricism was proclaimed to be a blot on Austrian culture. I was asked to protest against this in Scandinavian newspapers, but I regret today that at that time I did not feel able to engage in public debate. When Quine and others took over the analytical leadership, the movement was largely robbed of its social and political aspects. Applied logic suffered. At a meeting in one of the branches of New York University I gave a talk with the title “Why has logic made so little progress in this century?” In the audience were some of the most creative symbolic logicians. What I meant was, Why has logic as a social enterprise made so little progress in social and political debates? The logical empiricists took applied logic seriously. In addition to the personalities I have mentioned in this connection, Zilsel must be remembered. After the hot war, that is, during the Cold War, and during the Vietnam crisis, applied logic seemed to be looked down upon by many eminent logicians. Applied logic was conceived as inherently second-rate and also unphilosophical insofar as it often required empirical research, for example, investigation of political slogans and political argumentation patterns. There was a tendency to stay away from the use of social science techniques in the investigation of actually occurring transitions from premises to conclusions. The International Congress for Unified Science in Oslo in 1940 would presumably have dealt extensively with such theses, which both Neurath and I considered crucial: the empirically relevant issues. It would have included a variety of applications of logical analysis, but it would scarcely have changed the general direction of development within logical empiricism.³

The logical empiricists were broader and deeper in their outlook than in their professional philosophy! Or, to be more careful: what was likely to be

the picture of their philosophy internationally was that of a somewhat narrow, spartan, pedantic, and cold kind of—metaphysics. They were to be conceived as *Lichtlöscher* (light extinguishers), restraining the human spirit: basically positivists akin to Auguste Comte, devoid of imagination.

From the point of view of the history of ideas, we can now see that the “antipositivist” current was stronger both before and after the war than the current of enlightenment that the logical positivists tried to help gain power. Neurath’s planned twenty-six-volume encyclopedia had to remain a dream. “Had to”? Of course not interpreted as historical necessity, but if we compare the conditions prevailing at the time of the multivolume French encyclopedia with those of the pre- and postwar years, Neurath’s chances were close to nil.

During the Cold War there was a strong—but not strong enough—“third way” that brought some people all over the Western world together. The personal philosophy of the logical empiricists was well adapted to the main tenets of the third way. Their philosophy as judged from their writings and even their preferred way of speaking was counterproductive, however. They succumbed too often to an unpalatable “scientific” jargon, using a metaphor, “Unified Science,” as a core slogan. (Why “unification”?) Their dream deserved a less narrow slogan. Their younger generation had little chance to make headway on the great international scene, and they were perhaps less strongly motivated to fight.

How can I speak with confidence about the contrast between their narrow professional and their broad and deep personal philosophy? What are my credentials? I have one: my experience; the way I was accepted in 1934, and the way I was invariably treated later.

I entered the shabby seminar room of the Schlick seminar in 1934 with a peculiar philosophical background. When I was seventeen I had become deeply fascinated by both Spinoza’s *Ethics* and Whitehead and Russell’s *Principia Mathematica*. It was impossible for me not to talk and talk about those texts. The first chapters of the *Principia* were enough for me to become a friend of symbolic logic and a permanent user of *simple* propositional and functional calculus—even using it to make Spinoza’s conceptual structures clear to me. The *Ethics* has remained for the rest of my life the supreme paradigm of philosophy. There has been no *Wende der Philosophie* since the *Ethics*! In philosophy of language I appreciated Ogden and

Richards's *The Meaning of Meaning* and was completely charmed by Malinowski's view. The essence of his view—using *Ballungen* here—may be suggested through these formulations: “You mean speaking? Just fragments of behaviors (*Verhaltensweisen*).” Imagine two people in a canoe—preferably Polynesians—one rowing, the other catching fish. Working together, they use mainly one-word sentences, rarely descriptive, mostly with strong signal function. The scientific way of talking has basically this function, I thought. Pure descriptive function does not exist. I was, in short, a member of what was called “the Malinowski tribe,” applying his view to both the *Ethics* and *Principia Mathematica*. From William James's *The Varieties of Religious Experience* I learned a wide sort of empiricism. One should not take offense when people use terms like *God*, *substance*, and *immortality*. They could be translated in many ways, and important experiences elicited the use of the terms.

It was an unforgettable experience how Carnap reacted when I provocatively said that in the debate between James and Russell, James was nearer the truth. Did I spit in a church? Carnap looked seriously and inquiringly at me as he slowly answered, “Y-e-s? Do you think so?” Insofar as I was in a church, I was in a widely compassionate one. Most of what I said and obviously really meant, but which was not appropriate to say in their jargon, Carnap and Neurath found not only palatable but consistent with their philosophy at a deeper level. Russell revered Spinoza; Carnap and Neurath were less positive—they did not see a way to interpret the bulk of the formulations of the *Ethics* so as to make them consistent with their daily professed methodology and epistemology. In a way they envied me. Of course, Malinowski's view as “pragmatics” was not only legitimate but of great importance. Go on with your investigations, they would say. When they invited me to write a monograph on psychology, they completely trusted that it would fit in well with the encyclopedia. My first draft was very tolerant toward many contemporary competing “schools” of psychology. Later they invited Egon Brunswick to join me. He was at the time completely absorbed in working out a sophisticated conception of psychology *vom Gegenstand her* (from object), and we could not agree about the content of the proposed monograph. He would naturally concentrate on his way of conceiving psychology, a way that admirably deepened the “logical behaviorism” of the Vienna Circle. Nevertheless it was too narrow for the ency-

cllopedia, I suggested. We were close friends, however. I have never laughed so much with a basically suicidal personality. Our only conflict arose when I insisted on living outdoors in sleeping bags with my wife just above the Berkeley campus where he was professor. "A foreign scholar *cannot* live in the bush!" We were civilized, I explained, and we went down to the campus each morning to take showers. *No*, we had to rent a house. Unfortunately, Egon had problems with his nerves and had a central European acoustic sensitivity. He had to rest from about 2 P.M. to 4 P.M., but there were certain noises in the long corridor of the Psychology Department that he simply could not stand. He would rush to the door of his office and shout "MUST you whizzle Bach!"

These are perhaps details that are unnecessary to mention? I think not, because we who are admirers of the Vienna Circle of the 1930s and the logical empiricists should more often remember that there was a prominent, internationally acclaimed psychologist—and lovable personality—who felt closely related to logical empiricism, and who developed a system that immensely improved its "logical" behaviorism.

My *Erkenntnis und wissenschaftliches Verhalten* could also be used by logical empiricists, but it was more "speculative" and also basically empirical, not logical. The thesis of this work was that every scientific content of knowledge can be described in terms of behaviors (intentionality being inherent in *Verhaltensweisen* as conceived by E. C. Tolman, Egon Brunswick, and myself). However, such a behavior model of scientific knowledge is only one model; there might be indefinitely many other models with, in principle, the same level of adequacy. The "subjectivist" model cannot do the job alone because it does not transcend the behavior-consciousness dualism. The contents of knowledge cannot be adequately described in terms of states of consciousness. *Erkenntnisinhalt* cannot be separated from *Wissenschaftlicher Tätigkeit*. Each *Verhaltensweise* presents a synthesis, and internally relates the two inseparable aspects. Spinoza again!

It was a pity that I met neither Hans Reichenbach nor Edgar Zilsel, about whom I had heard so much. What I could understand of Reichenbach's philosophy of science appealed to me. One of the most enlightening opinions I construed him to have, I thought I could formulate as follows:

EMPIRICISM, POSSIBILISM, AND PLURALISM

Of course, creative scientists need mythology as do all creative people, and therefore also they need metaphysics, but the use is heuristic. Where scientific results are obtained, the myth can and should be peeled off. The next generation will need different myths!

Ending my personal account, I wish to express my feelings of sympathy both for the logical empiricists as immigrants in the United States and for their new friends who did what they could to relieve their pain. Their capacity to adapt was undeniable, but it had its limits. The tragicomic story Egon Brunswick told me should not be forgotten. The eminent linguist Karl Bühler (who especially through his “Bühler girls” kept a healthy contact with logical empiricists) had big and small difficulties—he could not, according to Egon, always clearly hear the difference between *d* and *t*. This conversation ensued. *Egon*: “As a famous European scholar and teacher of language you *must* not say Kenducky, you must say Kentucky!” *Karl*: “But that is what I say! I say Kenducky.” *Egon*: “No, no! I mean yes, yes, you say Kenducky. Say Kentucky!” *Karl*: “But Egon, *Lieber*, I say . . .” and so on.

It is for Austria and for the rest of the world a good thing that the works of the logical empiricists are now studied with care and renewed interest. It is a special joy for us who knew them personally to see this happening.

The Glass Is on the Table

Fons Elders: Ladies and gentlemen, I would like to welcome you to a debate that will, I suppose, be of interest in many respects. I would like to lose as little time as possible in beginning this philosophical contest, in which you will see an avid football fan, Sir Alfred, and a lover of boxing and alpinism, Arne Naess, debating with each other on central issues of their own philosophies. First of all, we have to discover what kinds of philosophical views both philosophers have. Sir Alfred and Mr. Naess, would you each explain to the audience what you consider to be your tasks as philosophers? Sir Alfred?

Sir Alfred Ayer: Well, I suppose to try to answer a certain quite specific range of questions that are classified as philosophical questions—and are very much the same questions that, I think, have been asked since the Greeks, mainly about what can be known, how it can be known, what kind of things there are, how they relate to one another.

In general, I would think of philosophy as an activity of questioning accepted beliefs, trying to find criteria and to evaluate these criteria; trying to unearth the assumptions behind thinking—scientific thinking and ordinary thinking—and then trying to see if they are valid. In practice, this generally comes down to answering fairly concrete specific questions.

And I hope, in a sense, to finding the truth.

This article was reprinted with permission from *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), 11–68. The debate, between Arne Naess and Sir Alfred Ayer and moderated by Fons Elders, was broadcast by the Dutch Television Foundation in 1971.

Elders: And you, Mr. Naess?

Arne Naess: Well, I see it a little differently, I think, because I would rather say that to philosophy belong the most profound, the deepest, the most fundamental problems. They will change very little, and they have not changed much over the last 2,000 years. So we have different conceptions of philosophy, but we agree that the epistemological question, "What can we know?" and the ontological one, "What main kinds of things are there?" belong to philosophy. As I see it, they are among the most profound questions we can ask.

Ayer: Yes, but how do you measure the profundity of a problem? I mean, a problem may often look quite trivial and then turn out to be profound. In a sense, you try to answer what you're puzzled by. Now this may be something very profound; it may even look quite superficial, then turn out to be profound.

Naess: How do we measure? Well, that's one of the most profound questions of all. How do we know? I suppose it will vary with cultural and social circumstances. It involves fundamental valuations, not only investigations of fact or logic.

Elders: Sir Alfred, would you give an outline of a sceptic?

Ayer: Well, I was going to talk about this. It seems to me that, perhaps, not so much in ancient philosophy, but certainly in modern philosophy since Descartes, a lot of problems have arisen out of a certain very characteristic sceptical argument. I should say that a sceptic is always someone who questions one's right to make certain assumptions—often assumptions about the existence of certain kinds of things—on the ground of their going beyond the evidence.

I mean, a very obvious and classical example would be scepticism about other minds. People will say, Well, all you observe is other people's behavior; all you observe is their actions, the expressions on their faces. How do you know that anything goes on behind? How do you know that everybody

isn't a robot, or whatever? And so you get scepticism also tied up with a certain neurosis, I think. It has also a certain emotional tone.

Or again take the classical example of the scepticism of David Hume, the scepticism about induction. Hitherto, when you lit a cigarette, it would smoke, and so on; when you have walked on the floor it has supported you. How do you know that this will happen in the future? How can you extrapolate from past evidence to future occurrences? And then you are proving that the argument is, in a sense, circular, always presupposing something that you can't justify. And a lot of philosophy comes out as the posing of arguments of this kind and the attempts to find replies to them. And you could even characterize different sorts of philosophy by their different ways of meeting the sceptic. Now, I think one mark of a philosopher, why I think that Arne Naess is a profound philosopher, is to take scepticism seriously. Would you?

Elders: But in *The Problem of Knowledge* you are quite critical about scepticism.

Ayer: I think I rather cheated in *The Problem of Knowledge*. It seems to me that I gave scepticism a good run, and then in the end somehow some little strong John Bull common sense came out in me and I took away from the sceptic the victory he had won, like a referee in a boxing match.

Naess: I had the same impression when I read your book. Ultimately you would say, "Hm, no! Common sense, after all, tells me there is something rotten here, so there is something rotten." But . . . well, I don't know your mind.

Elders: Speaking about this common sense, Sir Alfred, has it something in common with what the Germans call *Gesundenes Volksempfinden*?

Ayer: I don't know whether it has or not, because I don't know really which Germans you are talking of, or what they mean by this.

Elders: But what do *you* mean by common sense?

Ayer: By common sense I mean what Hume calls natural belief. For instance, take the case of the past. Now, in fact, you can't justify any belief about the past, because any attempt to justify it will be circular. The most you can do is check one memory by another one, one memory report by another one; or check in the records, and this again presupposes the reliability of memory, because how do you test the records? So you really have no non-circular justification.

So it's perfectly true to say, as Russell said, that for all we can *prove*, for all we can demonstrate, the world might have begun five minutes ago, with people already fully grown who delusively remember a totally unreal past.

Now I suppose, Naess, you want to leave it there and say: I really don't know. But I'd say, Well, the argument for it may be circular, nevertheless I'm going to assume it. This will be what I would call common sense. At a certain point I say, No, no, no, this is carrying scepticism too far: to hell with it.

And possibly that is a remarkable weakness in a philosopher: I should be more heroic. I mean, are you more heroic, more heroic in this way? Would *you* say we have no reason to believe that the world has existed for more than five minutes?

Naess: I think it is reasonable to say that it has existed for a very long time, and that it is reasonable that we should assume this. But that still leaves open the question of truth. Reasonableness does not rule out mistakes. Our concept of known truth is such that you must have a guarantee. But are we ever justified in saying that our research is over, we need not bother to test our beliefs any more, 50,000 years ago there were people living on this earth? We do not have any guarantees—or do we? I have not found any. The more I think about this, the less I come to feel that I know. That's a feeling you don't have every time you take a tram or walk on the floor. But in the moments when, as Heidegger would say, you live more authentically, that's to say you . . .

Ayer: Let's keep him out of this. [*Laughter.*]

Naess: I knew it, I knew it, and therefore I had my small pleasure!

Ayer: We ought to maintain certain standards.

Naess: Well, a man whose name begins with *H* and ends with *r* thinks, and other philosophers also, that we are more or less concentrated and integrated. In moments of high concentration and integration, not at the times when I am merely functioning, I have this feeling—and it is not just a feeling—that we don't have any decisive arguments for any conclusions whatsoever. That is, when the conclusion starts with "It is true that. . . ."

Ayer: And yet there is something peculiar here, in the way I view it, because we have got all the evidence. It's not like a paleontologist who might be doubtful about dating some fossils because, perhaps, more evidence will come in; perhaps someday more archaeological work will show him in which way his dating is wrong. But with sceptical questions, in a sense there literally isn't any more evidence to come in. No experiment could be made that would show us, one way or the other, that we *were* justified in assuming the existence of other minds. No psychoanalyst is going to still our doubts on questions of this kind. They are in a sense logical doubts; in a sense all the evidence is there.

Naess: There are so many conceptions of logic and of intelligibility, and of what an argument is, and of what is evidence. I feel that in questions of conceptual analysis you can never say, Now we have all the evidence here, now the cake is complete. Who knows the baker? Even in logical questions our situation resembles that of the paleontologist; we do not have all the evidence about the evidence. I am also against the idea that the collecting of evidence should always be a kind of collecting of the results of external experiments. Experiments should also be made with our logic and ourselves. What does the I, the ego mean? We use the distinction between the I and the rest—what does it mean? Philosophers have many, but doubtful, solutions, and I will probably go on trying to collect evidence until I die.

The mysteries that we "know" include those of "I," "know," and the link between the knower and the known.

Ayer: Yes, I'm not dissenting from what you say, I'm merely trying to get at what's behind what you're saying. Do you think we might discover any quite different criteria even of validity; I mean that we might suddenly say,

No, we don't want to use this logic? That you envisage even finding a different form of logic?

Naess: Yes, I expect the future here will resemble the past: continued modification of the conceptions of inference, criteria, and evidence. I don't think that in the year 2000 we will have a completely different conception of what constitutes evidence. But sometimes you add or subtract some kinds of evidence; and in a most unexpected way. As, for example, the concepts of proof in mathematics.

Ayer: Indeed, indeed.

Elders: Mr. Naess, I think we're still speaking a little evasively, because we can also formulate the problem of the past and the present in our own terms. Perhaps Sir Alfred will tell us how certain, how convinced he is that we are here now; and perhaps you could also speak on this question.

Ayer: Yes, I would say, if I were in a law court, I was convinced beyond reasonable doubt. [*Laughter.*] I wouldn't say it's certain; it's certainly logically conceivable that I should wake up and find myself back in my bed in London; that I've dreamt the whole thing. Although, of course, *that* experience might be the dream one. In that case, however, the question would be how things went on from then. But I would be convinced beyond reasonable doubt. I would bet on it. I would bet at least as much as you're paying me, for instance. [*Laughter.*] And I think Naess would too; he's more sceptical than I am, but he will keep a bet.

Naess: A little less willingly than you, I feel.

Ayer: But of course it's not simply a question of the fact of our being here; it's also how you are going to interpret that fact. We say we are here; but what are *we*? I mean, are these just bodies or do they have minds too? What's meant by their having minds? Are we going to regard them just as little bits of atoms, or are we going to regard them in a commonsense way as being consciousness looking outward? All these questions come up.

Just saying "We're all here" represents, I think, something that you are

pretty confident of. How, then, are you going to analyze that? What ontology do you envisage? This is again disputable.

Naess: You are now speaking as a sceptic here, Sir Alfred. We don't disagree on a single point here. But an important thing in scepticism is this: that anything can happen somehow, and that perhaps all things are somehow interconnected. Perhaps no question can be solved in isolation.

The question "Is this a glass?" is somehow irrelevant in relation to the basic problem that all things are interconnected. The particular question "Is this a glass?" evades the fact that there are several different ways of looking at the glass, that there are different relationships between human beings and a thing, and that all these interconnect.

Elders: But you still presuppose the entity of the glass.

Naess: If you say "presuppose" an "entity," that raises a tremendously difficult question. Do I ever presuppose?

Ayer: Well, of course, an enormous number of presuppositions are built even into the language we are using. If we talk about our being here at all, it presupposes first of all an assumption of human beings in some sense or other, a whole spatio-temporal system, the glass you're looking at, even the very terms we're talking in. But I wanted in fact to ask you, How serious is your scepticism? You say anything can happen. Now I perfectly agree that it is logically possible; there is no contradiction, no formal contradiction, in the idea of all these people turning into swans, and even Jupiter coming—I think Jupiter is going too far, but some human analogue of Jupiter coming in—and behaving as he did to swans. This is logically possible, but you don't envisage it as a serious possibility.

Elders: As an empirical possibility.

Ayer: I mean, it seems to me that although one admits the logical possibility, one doesn't think it will happen. One's scepticism in actual life, in one's actual beliefs, in the way one plans one's life, is pretty narrow because of the extreme force of what Hume called natural belief.

We are conditioned to make certain assumptions, to take for granted that things *do* go in regular patterns. A really serious scepticism might be represented by someone who really would refrain from taking action because, after all, the man that I shake hands with *might* suddenly explode; therefore, he says, I won't go near him. This is, if you like, an armchair scepticism, but I would not for this reason say that it was not serious, for I think that purely intellectual problems are serious. But it is, in this sense, theoretical.

Elders: You agree with this sharp distinction between logical and empirical possibility?

Naess: Well, this is not as important as certain other things that were said at the time, if you will excuse me.

I would say that sometimes I'm just functioning. When I buy a ticket to Groningen I neither assert anything nor deny anything; therefore I do not presuppose anything. I just walk, talk, and go. I don't quite feel a philosopher at such moments. I do not assert the truth or falsity of any proposition: I just function. I act with a certain *trust*. A trusting attitude in walking and buying things for paper money. I think it's a trust toward things, not propositions. And that's different from making an assertion; this *is* true and the other *is* false. That's one point.

The second point is this, that I could easily imagine that a certain lady here in the room might become a swan at any moment. I also tend to think something completely different—so many different, incompatible things, that they must collide with each other.

Therefore I'm not afraid that we shall explode, for if anything and everything can happen, you're no longer afraid. You may explode but it may not hurt you. If you only think something dangerous will happen, you're afraid; but if anything can happen, you simply calm down. And that's how I feel.

Elders: So as a sceptic you are less afraid than Sir Alfred?

Ayer: I think that if I thought anything could happen I should be afraid, yes. Anything whatsoever.

Naess: Well, that may be because you have had some bad experiences, but I have mainly had good experiences.

Ayer: No—I think it's just because I have a more feverish imagination.

Naess: Basically I have had good experiences with other people.

Ayer: But in *this*, you see, you're now doing exactly what you ought not to be doing: you're generalizing from past experiences. You say you've had good experiences, therefore you expect only good things to happen. But this is not just allowing anything to happen, it's allowing only what has happened to you to happen.

Naess: That's a misconception of scepticism.

Ayer: It's in your natural belief.

Naess: This is a first-semester scepticism. Not generalizing and using a lot of "perhaphses." In the second semester you utter generalizations because you do not strongly resist your own tendency to utter what strikes you. As I say something about all people and I don't believe it to be a truth in the sense that I'm convinced it is true in the moment I say it. But if you say, Oh, Mr. Naess, you are generalizing and speaking about all good experiences with all people, then I would say, Yes, yes; I generalize quite naturally, but I couldn't give a good argument for the truth of what I am saying.

So, generalizing is okay for a sceptic; if he is relaxed as a sceptic he will make a lot of generalizations, but *without taking them too seriously*. [*Laughter.*]

Ayer: Yes, I mean, every moment it's true; of course, you're taking generalizations seriously now in reaching forward confidently and drinking your orange juice. You're taking generalizations seriously because a huge amount of theory goes into this—theories about the behavior of the glass, about the liquid that's in the glass, about your own body, about the behavior of your neighbors, deciding that they will not suddenly go mad and start to be violent, all sorts of theories. Every minute, you're making an enormous number of assumptions of this kind.

Naess: But do I assume the truth of any proposition? Scepticism has to do with claims about the truth. During the war and during the Hitler regime, and when I meet people who are really convinced that what Marx says is true, then I feel the importance of a sceptical attitude; these people take the attitude that what they're saying just couldn't be false, an attitude of unshakability and incorrigibility. This I fight. I can be shaken and I wish others to be able to be shaken! The stand against incorrigibility somehow becomes generalized until it colors one's total view. But I think one of the roots of unshakability and incorrigibility must lie in political and social conflicts.

Elders: Well, will you try to apply what you are saying now to the concept of democracy?

Ayer: That's a big jump!

Naess: Well, I have for instance discussed and published more than 300 different definitions of democracy, in order to undermine politicians who say that democracy requires such and such—Soviet theorists who say that *they* breed “real” democracy; and British democratic politicians who say that “real” democracy is very different. But I only undermine, not accuse of error. The British traditions go back to certain authors in the Greek world, and the Soviet conceptions go back to Plato and Aristotle. So they all have a “big shot” behind them. What I do is merely to make it complicated for propagandists to monopolize the term.

Ayer: Ah, something I was interested in: you used the phrase “*real*” *democracy* and I think this brings out an interesting, indeed philosophical point, namely what Stevenson called persuasive definitions. When you say real democracy, the word *real* here is, as it were, an okay word, it's trying to capture assent for your conception of democracy. Not essence, I'm not saying that I mean there is no essence of democracy; the word *democracy* means what we choose it to mean.

And you're therefore trying to capture assent for a certain definition of the word, and of course not simply assent for a certain use of language, but trying to gain adherence to a type of behavior that is associated with the lan-

guage. Someone might say, Well, real democracy consists not in the right to vote, but in economic equality, shall we say. What he's then doing is trying to capture the favorable word *democracy* for a policy that he advocates. And I think that with questions like how you define democracy, what they're really asking is not in the least how you define the word; they're not asking questions of lexicography, they're asking you for some kind of political program, the word *democracy* now being one that has got favorable sentiments attached to it. And presumably you arranged your 300 definitions in some order of desirability. I mean, there were some you wanted to be accepted more than others, that even reflected your own political opinions, presumably.

Naess: Sure, to do that is very tempting. So far, I have only undermined the use of the slogan "democratic." But, I'm sorry to say, in some ways I feel miserable to be defending scepticism now, because there is a very tragic conflict between the attitude I hold in my integrated and concentrated moments, which is more or less sceptical, and the requirements of consistent action. For instance, when we believe that we really must do something about some terribly pressing problem, we must somehow narrow down our perspective. The vast plurality of possible worlds—and how do we know in which world we live—are suddenly not only irrelevant, but contemplation of them undermines the willingness and capacity to act. Most people are only willing to act forcefully and consistently when they have a belief in *the* truth and close their minds to all else.

Ayer: But I should have thought this was a field in which a certain kind of scepticism anyhow was very desirable and fruitful. It's very healthy indeed not to listen to the rhetoric about democracy, but to look at the facts. Look and see what actually happens: see how people live their lives, see what is actually done in the law courts, look behind the words to realities. This is in a sense a formal scepticism, although you're not sceptical about the words that we use to mark them with. And I would think there that your approach is thoroughly sceptical and at the same time constructive in this field.

Naess: Yes, it's desirable that people should be like you in this way, but mostly they seem not to be like that. The students say that we must get rid of particular textbooks of Naess because they undermine convictions and

will undermine collective action now and over the next five years. And this is real; it is a tragedy, because they need rhetoric and dogmatism, I think. Scepticism breeds passivity. I do not feel that way, but the students do.

Elders: But, Sir Alfred, if you are stressing this point of the relationship between certain philosophical schools on one hand and certain values on the other hand, do you see any relation between your empiricism and your role as director of the Humanist Movement in Great Britain?

Ayer: Yes, I see some relation. I don't see a relation in the sense that I would be able to deduce my political or my social views from any set of metaphysical or epistemological principles. I don't think that, in this sense, I have a coherent system or that there can be one. But of course, I think that there is some relation, inasmuch that if one has an empirical, even sceptical temper of mind, then one will be hostile to rhetoric, or at least one will look for the facts behind the rhetoric.

I've been a humanist, for example, partly because I could see no reason to believe in the existence of God. And therefore I would be opposed to people who not only maintained this, but also based political or social programs on it.

I would be a humanist inasmuch as I think I would be professionally opposed to humbug of any kind: the kind of humbug that you too often find in people in power, in judges and people of that sort. And, in a sense, I would expect an empirical philosopher to be radical, although if one looks at history, this isn't always so. Hume, who was the greatest of all empiricists, was in fact, if anything, a Tory. This was partly because of his scepticism. He was so sceptical about schemes of human improvement.

Elders: Like Schopenhauer.

Ayer: Yes. But in general it has certainly been true in the last century or so that there has been a close association, so close an association between empiricism and radicalism that it couldn't entirely be an accident. But I think it's a matter of a certain habit of mind, a certain critical temper in the examination of political and social as well as philosophical questions, that is responsible for this, rather than some deduction from first principles.

Elders: Yes, but these are not really arguments, but merely a piece of history.

Ayer: I'm giving you an explanation. You asked me what I thought the connection was, and I . . .

Elders: The historical explanation. But we're talking now on the level of arguments about the relation between empiricism and humanism.

Ayer: But it's slightly more than this, because I think a certain habit of mind, a certain critical temper that you would develop if you did philosophy in the sort of way that Naess and I do it, would on the whole tend . . . after all, you bring the same intelligence to bear on any of a wide range of problems, even though they aren't necessarily the same problems, and this would, I think, tend to have the effect of making you a liberal radical in social and political questions. This would be more than just a historical accident, as it might be if I happened to be both Protestant and have brown eyes; it's not as accidental as that. There is, I think, some causal connection of a very close kind.

But I don't think that I can, from any kind of empiricist premises, deduce a political program. I mean, you can't get rabbits out of hats that don't contain them. Do you agree?

Naess: Well, no! First of all, you expect that as philosophers we should somehow be able to deduce them, whereas I would say our responsibility is to connect our views—our ethical and epistemological as well as our political views—in a fairly decent way so that we get a coherent whole. The connections may be looser than ordinary scientific connections, looser than deductions. I think we disagree here on how we conceive of our roles as philosophers. I consider myself a philosopher when I'm trying to convince people of nonviolence, consistent nonviolence whatever happens. That is a fairly fantastic doctrine, considered descriptively or empirically. I must therefore make clear, to myself and others, what kind of normative principles I also make use of, and derive from them the special norms and hypotheses characteristic of a Gandhian strategy of conflict behavior. I think I believe in the ultimate unity of all living beings. This is a very vague and ambiguous phrase but I have to rely on it. It is a task for analyti-

cal philosophy to suggest more precise formulations. Because I have such principles, I also have a program of action, the main outline of which is part of my philosophy. So I might suddenly try to win you over to consistent nonviolence and to persuade you to join some kind of movement—and this in spite of my not believing that I possess any guarantee that I have found any truths.

Ayer: I can see you might indeed try to persuade me of this, but I don't think you'd persuade me of these methods. The ultimate unity of living things: I mean . . .

Elders: Is this metaphysics, in your opinion?

Ayer: Well, it could be an ordinary scientific statement. In fact, it would include not only living things but also inanimate things, if they are all made of atoms; in this sense they are homogeneous. Then I suppose there is more homogeneity between organic things, although the difference between organic and inorganic is so slight.

It doesn't seem to me that on any scientific basis of this sort, one is going to build an ethical view. After all, civil wars take place, and the people who fight each other in them don't deny that they're each human beings and even belong to the same nation: but it doesn't stop the fighting.

So, in fact, this alone is not going to be sufficient. You have to put up some moral principle, which is not going to be deducible from any factual or metaphysical one; that it is wrong to take life of any kind. But do you then extend this to all life, mosquitoes and the like, or just human life? I'm not saying this ironically: I think that it's a perfectly defensible position to be vegetarian and so on—I'm not, but I think . . .

Elders: But will you try, Mr. Naess, to give the metaphysical foundation for your belief in nonviolence, about which we can speak later? We are still at the level of principles and arguments for or against metaphysics.

Ayer: And it's partly political too, isn't it? It's not just metaphysical. How well Gandhi did against the British; he would have done less well against the Nazis.

Naess: Yes, metaphysical and political and anthropological, all at once, all in one: therefore systems are unavoidable. Gandhi as a leader in Germany? Perhaps one million Jews killed before 1938, none after. He advised resistance, not submission. The metaphysical principle here of course belongs more to the Indian than to the European tradition.

Ayer: Yes, I would say so.

Naess: But the ecological movement may change the European tradition. The formulation “All living beings are ultimately one” is neither a norm nor a description. The distinction between descriptions and norms and even imperatives can be put in afterward, semantically speaking. It is the kind of utterance you make in support of something I would call an intuition, by which I do not mean that it is necessarily true. In moments of concentration you are aware of vast perspectives: yes, that is the thing, ultimately life is one!

And then you start to ask yourself how you can argue for this and what does it mean; and at this moment you need a norm, a system of ethics and an ontology and plenty of hypotheses in many fields covered by the sciences. And you say, A mosquito and myself are obviously not biologically the same, so I must mean something different from it. For instance, something like: if I hurt you, I hurt myself. My self is not my ego, but something capable of immense development. Think of a picture from the war: a young man is just going to throw a grenade and there is another young man, the so-called enemy, very similar to him, also intending to do the same at exactly the same moment. It’s a case of “him or me”; but they are also obviously aware of the fact that they are the same kind of being and that to throw grenades at each other is really nonsense. They are one.

Ayer: Well, I share your moral sentiments, but I think what you’ve been saying is very largely just false. It’s like the schoolmaster who is going to beat the boy and says, This is going to hurt me more than it’ll hurt you. That’s an absolute lie; it isn’t going to hurt the schoolmaster at all—on the contrary, in only too many cases it’s going to give him pleasure.

Naess: The boy also, if he’s a masochist.

EMPIRICISM, POSSIBILISM, AND PLURALISM

Ayer: The boy also if he's a masochist, yes. But, in fact, what you are saying simply isn't true. I mean, not only I and a mosquito, but even you and I are not one. Of course, if I sympathize with you and you are hurt I shall be sorry, but I shan't be hurt in the same way. It's indeed true, empirically true, that to a rather limited extent human beings sympathize with one another; with people they know and like, and people they feel in some way close to. But to say that they're one in any literal sense is just false. I'm not identical with you, and it would be a terrible thing if I were, in a way. [*Laughter.*] I mean, this discussion would be very difficult.

Elders: Or it would be much easier.

Ayer: Ah, well, yes, it would be. It would be even more solipsistic than it sometimes tends to become.

Elders: Growing more and more together.

Ayer: It seems to me that clearly, if one takes these things literally, they're false; and therefore you take them metaphorically. Now, it's just when you take them metaphorically that they become moral principles of a perfectly respectable kind: that you ought to treat other people as though they . . . I mean, if you like, as in the Christian way of thinking. . . . I mean, deal with other people as you wish them to deal with you. They wouldn't necessarily have the same tastes, but in a sense one should treat other people as if they were as important to you as yourself. This is a perfectly good moral principle. But why pretend that we are identical when we are not?

Elders: Now you need some whiskey, Mr. Naess?

Naess: No, no. You are too rash.

Ayer: He doesn't want to identify with me too much, does he?

Naess: Too rash, you are too rash. First of all, there is no definite literal sense of an utterance like this in relation to its metaphorical sense. You have to analyze it from a great many points of view. Its so-called literal meaning is

hardly exemplified in any available text; what is the literal sense of the identity of all living beings?

Ayer: Well, I mean it in the sense in which the *Evening Star* is identical with the *Morning Star*; in the sense in which the Young Pretender is identical with Charles Edward Stuart; in the sense in which the author of *Pickwick* is identical with the author of *Oliver Twist*: this is what I would call the literal sense of identity. Now it's up to you, since you're not using it in that sense, to define a sense in which you are using it.

Naess: That's right.

Ayer: And now I subside.

Naess: Good. That's better. [*Laughter.*] Have patience!

When we say that we are the same, three concepts may profitably be interconnected. The ego, the self with a small *s*, and then this great Self, with a capital *S*, the *ātman*, which you hear so much about in Indian philosophy, but also, of course, in certain Western traditions. If you as a boy had had a very much wider development, your self, what you take to be part of you, would not only include your body, it would include everything that's yours, so to speak; so what is yours would have been much wider.

This justifies the tentative introduction of an entity, the Self, with a capital *S*, the power of which gradually increases. You might still say your limits are those of your body, but there you would have to include units of your central nervous system such as, for instance, those corresponding to the Milky Way and the Andromeda nebula insofar as you have sensuous or other bodily interactions with them.

And in this kind of philosophy they ultimately believe that human beings can develop in such a way, that in a sense their selves include the other selves in a certain way.

Ayer: But in *what* sense? In *what* sense does my self include Fons? Or could it ever, however much I thought of him?

EMPIRICISM, POSSIBILISM, AND PLURALISM

Naess: Now you are too impolite. Fons is not utterly different.

Elders: I should like that.

Ayer: I'm sorry, but I don't know, I . . . Fons would like it.

Naess: Philosophy is just this; that you develop something that I've started and gradually you introduce preciseness from different directions. Then you breathe three times, reinforce your intuition, and go a little further toward precision. But there is no hurry, this process will take a long time. And of course sometimes intuitions vanish for some of us; for instance, those of "absolute movement" or of an absolute "voice of conscience."

I suppose you would say that the limits of the self gradually increase from infancy to puberty; and the sense in which it increases is, I would say, what you are concerned about. What you identify yourself with . . . the norms you internalize.

Ayer: Ah! Now that's, yes . . .

Naess: And concern in the sense in which you say *my*! You use the possessive term, my—*my* mother, for instance.

Elders: I think in a biological sense we form a chain of divisions; so for example, in this sense, you can use the meaning of the greater Self, against the small self or ego.

Naess: Yes, biologically we are just centers of interactions in one great field.

Ayer: But why put things in a portentous way when they can be put in a simple way? Why not say that as you grow older you come to comprehend more things; your knowledge perhaps increases, and then after a certain point, I'm afraid, diminishes again. But up to a point it increases. Perhaps your range of sympathy is greater: perhaps you identify with more things and sometimes again with less.

Again, one can't always generalize; some people differ in this respect, some people narrow themselves in the sense of concentrating more on

themselves. When one has a fairly precise method, a precise way of describing all these facts, why does one have to make such portentous statements about one's self expanding and including everything. It sounds romantic, but it's quite superfluous when what you mean can be put quite definitely: that these things happen, and these things are empirically testable. I would say that what you're describing is true of some people, not of others.

Naess: Well, what is portentous depends on at which university you are studying.

Ayer: Portentous. I did not say pretentious, that would have been rude, I said portentous.

Naess: I meant portentous also: and that depends on the university. If you had been at Oxford or Cambridge at the time of Wittgenstein, it would have been a different thing than what it was at the time of Bradley and of the Hegelians. Trivialism is portentous if carried to extremes. But let us go back to the belief in the pervasiveness of the "I." Well, people then used certain terms about which we now would say, Oh, my God, don't be so portentous. So this is completely relative, I think. There are a million things to be said: must they all begin with "I"? Spinoza introduces the "I" in part two, not in part one, of his system. Do we have a definite ego all the time? Isn't that a weird construction? A Cartesian prejudice? "I developed from this to that" or "Now I am developing more in this direction" or "I was very different when I was thirteen from when I was twelve," and so on—I, I, I!

Must we think that there is such an entity? I wouldn't simply think there is a definite entity there. Without this scepticism I would not feel "All living things are ultimately one" to be a good slogan.

Ayer: I don't think I disagree with you there. I certainly don't want to postulate any sort of Cartesian substance, anything of which the ego could be a name. I'm very puzzled about this, I don't at all know the answer to it, but I'm inclined to think that you can't find a personal identity except in terms of the identity of the body.

But of course, if that's right, if you can only define personal identity in terms of bodily identity, then your thesis that one's identity could include

other people would become false, except if some kind of bodily identification were to take place. I'm not very positive about this, but let us take, say, the relation between you and me. We're about the same age, your self and my self are sitting here now, and two small boys went to school so many years ago. Now clearly there is a physical relation, in the sense that there is a spatio-temporal continuity between these bodies and those ones, and there are also certain causal connections. I mean that what we are thinking now is causally dependent upon what happened to those bodies then. Whether there is more than this I would be inclined to dispute—except for memory, but that again could be held to be a function of physical stimuli.

So I'm inclined, I think, to equate personal identity with bodily identity, but I'm not sure about this.

But even if this equation were shown to be wrong, as it easily might be, I wouldn't want a Cartesian substance. I would want something like a Humean theory of a series of experiences linked by memory and the overlapping of consciousness and so on, so that in this sense I don't want to attach too much importance to the I.

But I think I wanted to say that in whatever way you define the series of experiences that are properly called mine, they are always exclusive of those properly called yours. I don't think that series of experiences from different persons can logically intersect. Although paranormal psychology might produce phenomena that one might want to describe in this sort of way. I don't want to be at all dogmatic about this.

Naess: I'm genuinely glad to hear this. I agree concerning the term *experience*. Its logic is subjective: insisting on using that term, you are caught in the same trap as Hume.

Perhaps before the year 3000 there will be "hardware" people, let us say people who have abandoned their brains, taking in computers instead. Collectivists may prefer this: it might herald the end of egos. But it couldn't be quite the end, and is perhaps not central to what we are speaking about. More central is the fact that, as a philosopher, I think I have a kind of total view, which would include logic, epistemology, and ontology, but also evaluations, and that I do not escape from the relevance of them at any moment. When I'm saying who I am, so to speak, I cannot avoid indicating what kind of evaluations I make, what kind of priorities or values I have, et

cetera. And there it seems to me that we get into a metaphysical area, a “portentous” area, because only there do we realize just how many different conceptions of fact and experience are possible.

I have a feeling that the empiricism that I suspect you are inclined to accept is too narrow, in a sense that you do not admit a commitment to statements that are untestable empirically. I am inclined to say, Your thinking is too narrow. Would this hurt you slightly? If I hurt you I hurt myself, which means that if, for instance, I now said something to you and the next moment I thought that it had been unfair of me to say that when I realized that it had hurt you somehow—not that you couldn’t easily win an argument—but if it had hurt you, I would have a moment of identification. Phenomenologically there would be “one” hurt, which was not yet “my” experience. I expect you now to jump into psychology and say that when you identify yourself with somebody else this is a matter of psychology, not philosophy, and that we have the empirical evidence from more or less good experiments that can show us to what extent we identify with each other. It has no ontological consequences. If *A* identifies with *B*, he remains *A*.

But for me it is more a question of what in German they would call *Einstellung*; it’s something that is not reducible to empirical psychology, because whatever the psychologists find, I would stick to it probably. They are committed to a definite conceptual framework from the very beginning.

Ayer: Yes, I wasn’t going to take that move, because I don’t think these labels matter all that much: these are classifications for librarians. I think we should be free to say what we like in every field if we like. I was rather going to take up what you said earlier about this question of who I am. I think when I was arguing before I was using it more in what could be called a “passport” sense; for example, who is Arne Naess? I would say that he is someone who answers to such and such a description, whereas you were clearly using it in a wider sense than this. You were meaning by “who am I?” something that has to do with your own conception of yourself. When you said that hurting me would hurt you, this means that it would in some way be injurious not to your identity as the passport Arne Naess, but injurious to your conception of yourself, injurious to the sort of man you like to think of yourself as being. And possibly also if you hurt me it would have repercussions on your own character, and therefore in this sense you’ve in-

jured yourself. You wouldn't literally feel the pain that I felt, but you would be damaging yourself; which means that you are, in a certain sense, identifying with me, because you regard it as part of your conception of yourself that you don't gratuitously or voluntarily or deliberately hurt other human beings.

Now there seems to be no quarrel here whatsoever. But I think that if there is a difference between us, it is that I make a sharper distinction than you do between what's descriptive and what's normative. I would say that this was simply an announcement of what rightly, to put it in this way, could be called a policy.

I mean, it is perhaps not quite right, it's somehow not so deliberate as that, and it's more important to you than that. But this is a form of life that you're adopting, and something that goes very deep, and you put this forward, if you like, for me either to imitate you or disagree with you.

But, I think that a mistake could only arise, and I should only have a quarrel with you if you tried to prove it by deducing it from what masqueraded as a statement of fact. If you accept what I have just said as what you mean by "you and I are one" or "you identify with me," then we are talking in sympathy. It's only if you say that you have this policy *because*, and then make this appear as a factual statement, that we then quarrel on intellectual grounds.

Elders: So, in fact, the central question is the relationship between metaphysics and morality.

Naess: A norm or a moral injunction should not masquerade as a description; but neither should a statement involving description, for instance factual description, masquerade as a norm. "All living beings are ultimately one" admits partial interpretations or analyses in various directions, descriptive and normative. None seems to be exhaustive, which is typical of good old metaphysical formulas.

Incidentally, the distinction between fact and norm, or injunction, is ultimate: it is not that I think the norms are less normative, but that the descriptions are less descriptive. Description presupposes, for instance, a methodology of description. A methodology includes at least one postulate, at least one rule. A change of postulates and rules changes the descrip-

tion. This makes the notion of description as opposed to norm a little shaky: therefore I no longer use the term *fact*. It suggests independence of postulates and rules.

Elders: There we go, Sir Alfred.

Naess: I am sorry, I would feel badly if you were to take me as just a Heideggerian or some kind of . . .

Ayer: No, no, on the contrary, I mean, I wouldn't . . .

Naess: I'm not so sure I'm not. I'm quite near Heidegger in a certain sense.

Ayer: Nonsense, nonsense, nonsense!

Naess: Yes, we are *Geworfen*. I feel very much that I have been thrown into the world, and that I am still being thrown.

Ayer: Now *why* do yourself this injustice? Why spoil it? Now leave him out, keep him out. How do you know we are thrown into existence? You may have had a very difficult birth for all you remember.

Naess: How do I know? How do I know the relevance here of knowledge?

Ayer: Thrown into existence, nonsense.

Naess: Perhaps you use the term *know* too often.

Ayer: This should be eliminated.

Naess: Let's get away from being thrown into existence. . . . Yes, I shall try to trust you when you say that I am not thrown!

Ayer: Okay, but I take your earlier point, which I think is an extremely important one, about the vulnerability of the notion of fact.

I think we need the notion of fact, because we do need a distinction be-

tween fact and theory at some level: we need some kind of distinction between the deliverances of observation and the explanation for them. But of course it is not a sharp distinction. And if you like to say that what we call facts are already theory-laden, I would say it is a fact that there were more than two glasses on this table, and I should agree that an enormous amount of theory has already gone into this.

And I would share your scepticism about anything that might be called pure unadulterated fact. I think probably that doesn't exist, that there is already some conceptualization here, and if you like, conceptualization is already to some extent normative; pragmatic considerations have already come in, in the way we classify things, since the classifications are based on what we find it useful to do. So I quite agree that the distinction isn't an absolute one. The only question is whether it's relatively strong enough to bear the sort of weight I want to put on it. And I'm again hesitant about this.

Naess: I'm glad you are hesitant. But of course, when you say we need a concept of fact, of hard fact, I say some need it sometimes. But who, and when? It's not the great Self, it is the small self that needs limitation: it is when I'm functioning in tough practical situations, but not when I'm deciding what it is worthwhile doing in life, when the very widest perspectives are involved and when one is concentrating and meditating.

Ayer: One needs to make certain distinctions in order to move forward a little bit. You must take certain things for granted in order to make a further step, and then possibly you go back and question other things; otherwise you never start.

Naess: Yes, I agree. But it doesn't help you when you're saying that we need a concept of fact, for example that this is a glass.

I do not think we need a concept of fact, and we do not even need a concept of knowledge, in what I would call fundamental philosophical discussion. After a lengthy discussion, when we really get down to subtleties and refinements and also fundamentals, the term *fact* no longer occurs in your speech; neither does the term *I know* occur in mine as far as I can see. But there is this kind of vanishing—somebody said that the state

would vanish, though they say it less and less now, I think—and I would talk about the vanishing distinction between description and norm, fact and nonfact: the vanishing distinction, not vanishing facts, but the vanishing distinction . . .

Ayer: Well, the vanishing distinction between truth and falsehood?

Elders: No, between fact and interpretation.

Ayer: Well, then I would say I would need the concept of fact to maintain the distinction between truth and falsehood, to maintain some notion of truth as stating what is so and falsehood as stating what is not so, and using *fact* as a purely general term to cover what is so.

Naess: But you don't need the term *fact* in order to maintain the very general distinction between true and false. . . .

Ayer: I don't need the actual term, but I need some term doing that work.

Naess: I don't think so.

Ayer: You don't admit it—you do?

Naess: Well, not in order to uphold the distinction between true and false. There is a need for the term *fact* in everyday trivialities, like when I pick up this glass and . . .

Elders: Well, but in a logical sense you don't need any fact. . . .

Ayer: No. You could certainly do without the actual term *fact*, because one can talk of propositions as being made true by states of affairs, by events, by things having certain properties, or whatever. But I still think you need something to stand for what stands on the right-hand side of the equation. You have an equation: such and such a statement is true if and only if . . . and then you assert whatever it is. For instance, "You and I are sitting here" is true if and only if you and I are sitting here. Then you want some generic

EMPIRICISM, POSSIBILISM, AND PLURALISM

term, it seems to me, to describe these states of affairs that in the last resort verify or falsify all the statements that we make.

I do want some residue of realism, I want something out there that in the last resort makes our statements acceptable or not acceptable: in the end one can't say that anything goes. It's all very well my wanting to believe that I have a thousand pounds, or a million pounds in the bank. I go to the bank and I try to draw it out and it's a fact that the cashier doesn't pay it to me.

And in the last resort one wants some, I don't mind what term you use, but some term, it seems to me, to characterize, in any philosophy, really this . . . the brutishness of things, the hard things you stub your toe against. Yes this, like Dr. Johnson. [*Strikes his fist on the table.*]

Naess: Excellent. But it is highly characteristic, I think, of your monumental tradition of empiricism in England, in Britain, I should rather say.

Ayer: England I prefer. I'm not a Scot.

Naess: I would say British: the Scots were wonderful empiricists. But when you need a term for something, if you say this: it snows, it does not snow; this is true if something, something . . .

Ayer: That's right, the actual stuff.

Naess: . . . then you get the idea: ha, facts. No, that is British, [*laughter*] that is not universal. The Bengali seem never to get the idea; think of Tagore and others. . . .

Ayer: If it were British, alas, we should be in a much more powerful position than we are. I'm afraid it's becoming American.

Naess: Well, I learnt from housewives and schoolgirls another way of putting it. They say that something is true *if* it *is* so. Marvelous. It is a little wider than "it *is* so," and much wider than "it *is* a fact." It's true *if* it *is* so, it's false *if* it *isn't* so. Marvelous. But very little is said, of course, concerning testability.

Ayer: But “its being so” is what I call a fact.

Naess: “*If it is so*”; we have a conditional there, and there we agree.

Ayer: Yes.

Naess: It is only true “*if it is so*.”

Ayer: Certainly.

Naess: But what *is*? What *is* there? And here we must be terribly comprehensive, if we are to include all living ontological traditions. And to narrow it down to facts is to narrow it down to the British Isles first of all.

Ayer: Oh no, no, no, you mean, only in the British Isles anything is so? I’d be very sorry to hear this.

Naess: No, on the contrary, “Anything is so that is so” is more, is broader than “What is a fact?” And the British tradition, which politically speaking is sometimes, I’m glad to say, very good in comparison with the opposite German attitude . . .

Elders: With the Labour government or with the Conservatives?

Naess: Both, they are identical as far as . . .

Elders: Do you agree, Sir Alfred?

Ayer: They’re much more similar than I care for.

Naess: Yes, and very British.

Ayer: No, when the last government was in power, I thought, These are no better than the Conservatives. But now that the Conservative government is in power, they are worse.

Naess: When you say “they are worse,” would you add, Well, I just talk like this, it is not part of my philosophy? Personally I would say, This is part or should be part of both our philosophies. “They are worse,” you should be able to say that . . .

Ayer: I do say that, constantly.

Naess: But you might do more than say it, you might take it as part of your personal philosophy, or your *total view*. And there we are—the total view—which is considered unclear, unempirical, metaphysical in a bad sense. Because if you have a total view, somehow it hangs together and you always see the facts only as structures within a great body of hypotheses.

Ayer: You can’t seriously maintain, can you, that every opinion that I hold, or every emotional preference that I have, must be tied up with my philosophy. For example, I’m a lifelong supporter of Tottenham Hotspur, a football team: it is absurd to say this is part of my philosophy and that, had I happened to support Arsenal instead of Spurs, I could not be the positivist pragmatist that I am, but some sort of absolute idealist.

This is being ludicrous. I have lots and lots of opinions about all sorts of things: political opinions, aesthetic opinions. If you like, they’re all unified in the sense that it’s the same person who holds them; and possibly some very clever psychologist could trace some connection, could realize that there was something in the Spurs type of play that would appeal to philosophers of my sort possibly more than something, shall we say, in the play of Manchester United. But why do we have to go so far? Why not leave me in my compartment?

Naess: No, not today. No, if you say “they are worse” and you think of a Labour government, or any other government, you do not mean worse as football players, you mean worse . . .

Ayer: I make a moral judgment, yes, certainly.

Naess: Partly moral, partly political and economic.

Ayer: Mainly moral.

Naess: And to me that means that you are already involved in philosophy. There are degrees of philosophical relevance. Not all moral judgments are part of your system, but all moral judgments of yours should hang together within the framework of your philosophy; let us distinguish frame and details. So every moral judgment you make is relevant to your philosophy without being part of it. The mythical fall of the apple that struck Newton is not described in a physical system, but it is a physically relevant fall.

Ayer: In this sense I don't think I have a philosophy.

Naess: I suspect you don't have.

Ayer: I don't think so, no. I don't think that anyone *should* have in this sense.

Naess: Should! Another ethical judgment.

Ayer: It seems to me that I have an intelligence such as it is that I . . .

Naess: Here is a moral issue for you. I shouldn't have such a philosophy—your general statement included me.

Ayer: I think it tends to confuse your thought. I think you'd be a better philosopher if you did not have such a philosophy.

But I don't know, it is such a silly question: are you speaking as a philosopher? What does it matter? Am I speaking as an Old Etonian, am I speaking as a former member of a regiment and so on. I mean, it's irrelevant. The question is, What are you saying and what are the grounds for it and how would you defend it? But this "are you speaking as a such and such?" seems to me to be somehow a red herring. I'm not speaking as a fisherman, I am not a fisherman in fact . . . not even of souls. [*Laughter.*] The point is to say, Well, all right, you hold these principles about the Conservatives; why do you think they're so bad? And then I would say something

EMPIRICISM, POSSIBILISM, AND PLURALISM

about the dislike of the kind of businessman's outlook they seem to represent, this "let me make as much money as I can" that is the true characteristic of many of them. This, in a sense, is the theme that runs through their policy and attitudes.

And then you say, Are you speaking as a philosopher? I don't know how to answer this if you mean, Do you deduce this from your views about the problem of perception? No, I don't. If you mean, Is this in any psychologically recognizable sense the same person as wrote those books?, yes, it is. What more do you want?

Naess: I wonder, if you said . . .

Ayer: Or was it already enough?

Naess: . . . you shouldn't have a total philosophy; you would be a better philosopher . . .

Ayer: I don't say "you should," I say you haven't got a total philosophy.

Naess: But you said "you should" . . .

Ayer: I also shouldn't have . . .

Naess: I do not forget it. You said I shouldn't have it.

Ayer: Yes, I will maintain that, I'll maintain "you should not." Liking you as much as I do, I change this to "you do not."

Naess: Too late!

Ayer: But I'm prepared to maintain also "you should not."

Naess: We probably agree that a dogmatic view of all things lacks value, even if it were possible to work it out. But implicitly we pretend to coherence, implicitly we pretend to have methods of how to establish views, empirically or otherwise. In short, we implicitly pretend to have views rele-

vant to whatever we say. And those views are personal, not something found in libraries.

I'm inviting you to let us get hold of more of you; and not psychologically or socially, as Mr. So-and-So or Sir So-and-So, but to get to know how you perceive the world, its relation to yourself, the basic features of the condition of man as *you* experience them.

And I call this a philosophy and approximations to a total view.

Ayer: Oh, no, no, no.

Naess: Now you try to take that back?

Ayer: No, no, no.

Naess: You have said I don't have . . .

Ayer: No I don't take it back. Let me put it this way. I don't think that the term *total philosophy* . . .

Naess: Total view.

Ayer: . . . has any very useful application. What would having a total philosophy imply? Assuming that you do and I don't, in what way, in what concrete way, do we differ? I mean, I also have opinions about politics, ethics, aesthetics and express them and act on them. But these are not part of a total philosophy in your sense. How would I have to change, either in these opinions or in the metalanguage, in order to have a total philosophy in your sense?

Elders: May I try to formulate a question by which you could perhaps illustrate your point of view? Does your offensive nonviolence, Mr. Naess, imply that you would prefer to be killed by someone else rather than kill someone else? Is it part of your philosophy?

Naess: It would be more than a preference, actually. It might be that I would prefer to kill the other person, but I value the preference negatively.

Norms have to do with evaluations, with pretensions to objectivity, rather than preferences. Let me formulate it thus: I hope I would prefer to be killed by someone else rather than to kill, and I *ought* to prefer it.

Elders: And this is a part of your philosophy?

Naess: Yes. And it has empirical, logical, methodological, ontological, et cetera, ramifications, like other philosophical issues. It belongs to a greater unity of opinions which *in part* are derived from certain principles of descriptive and normative kinds.

Elders: And how is it for you, Sir Alfred?

Ayer: I should, I think, disagree. Although it's a very difficult question, I can imagine situations certainly in which I should prefer to kill someone rather than be killed by them, in which I should in fact try to kill someone rather than allow him to kill me.

After all we were both, I assume, in the war and there these situations arose. But I don't see in fact how this fits in. Because supposing I gave a different answer from the answer that he gave or indeed suppose I gave the same one, how would this in either case be part or not be part of a total philosophy?

It might of course in some situations be an extremely important concrete moral question; but what I am denying when I reject that sort of philosophy is that the way either of us answers a question of this kind has any relation, any logical relation, to our views, for example, on probability or on the theory of knowledge, or on the mind-body question, even on such questions as the freedom of the will. Whatever our theoretical views about the freedom of the will, I can't see that they would settle a question of this kind one way or the other. I mean, we might both be determinists in theory and yet take different views about this; or we might one of us believe in free will, the other in determinism and take the same view. When I was sceptical and said you shouldn't have this total philosophy, what I meant was that I can't see what the links are supposed to be to make the totality.

But of course I have opinions on all these matters and very strong ones, although in this particular case I think I would probably dissent from you.

I think I'm not a total pacifist. I haven't been in the past, and I think I can imagine circumstances in which I shouldn't be in the future. I think if something like the Nazis were to reappear, I would want to defend myself against them as I did then.

Naess: There is a relation between not wanting to kill somebody else, even in a fight, and epistemology; because any question which you answer implies a methodology. And this also holds good for the question "Would you prefer to be killed rather than to kill?" In order to answer this I must have a kind of methodology to find out whether I would. All fields of inquiry are interrelated; therefore we implicitly must pretend to cover them all when giving any answer whatsoever. We presuppose a total survey from mathematics to politics.

Ayer: May I put this concretely? Suppose that either you or I held a physicalist's view of human beings, something like Gilbert Ryle's *The Concept of Mind*. Suppose you were a behaviorist and thought of the mind as the ghost in the machine and so on, do you think that this would then entail an answer one way or the other to your question? Do you think that Ryle, for example, is in some way logically committed to giving a different answer to this question from the one that you would give?

Naess: No, I don't think it would entail this. But I think that certain views cohere more or less and that it's the business of a philosopher today to try out to what extent they cohere; to what extent they're not only logically consistent, for that would leave us too free, but also coherent in their non-logical aspects.

Ayer: Do you think that this view of the mind would even favor one answer to this moral question more than another? I mean, could you deduce simply from Ryle's book, other than psychologically, even in a semilogical way, what moral position, what view he would take on this moral question?

Naess: I think that if you made different combinations of interpretations, it favors, so to speak statistically, the acceptance of violence. But we would be capable of reconstructing it in such a way that it would not favor violence.

And this is an important thing. A book like Ryle's leaves things implicit: presuppositions, postulates, methodological rules. No single, *definite* set can be said to be presumed; therefore there will be a plurality of interpretations and a plurality of reconstructions.

And I agree with you, it is too easy to talk about a total view and to say "I have one." I detest questions like "What is your total view?"

Ayer: Yes.

Naess: Yes.

Ayer: Well, there you see how much I sympathize with you.

Naess: We cannot have a total view in the sense that we are somehow inescapably linked to certain definite opinions; nor can we behave like a general surveying an army of possible views and pick out some, saying "these are my views"—the relationship between ourselves and our views is too intimate.

Ayer: I should have thought, in fact, that your general philosophical position, with which I sympathize, went entirely the opposite way, and that the tendency would be to see each question independently on its own merits; not to feel that you were committed by your answer to this one, by any answer to that one.

Naess: Not any longer.

Ayer: Not any longer?

Naess: No, because I feel that as a philosopher I am an acting person, not an abstract researcher. Even this discussion is not really some kind of contemplative affair; it is also a kind of continuous action all the time.

Ayer: Indeed, indeed. In certain things you then require more coherence in action than you do in theory. You don't mind your theories being incoherent, but you want your actions to be coherent.

Naess: In research I tend to adopt an almost playful attitude in the sense of looking at and pleurably contemplating more combinations of views than anybody else. More kinds of common sense even! But as an acting person I take a stand, I implicitly assume very many things, and with my Spinozist leanings toward integrity—being an integrated person as the most important thing—I'm now trying to close down on all these vagaries. I am inviting you to do the same.

Ayer: But, why should I . . .

Naess: As a person you may have such a high level of integration that if you took some years off and tried to meditate a little more, you would be able to articulate some of your basic evaluations. These are more than inclinations; Jaspers calls them *Einstellungen*. They determine or at least express an important part of what would be your total view.

Ayer: It's not a prospect that I find at all desirable. Failure to be articulate has never been my problem, I think.

Naess: I think so.

Ayer: Well, there are hidden problems perhaps, I don't know.

Naess: Too fast, you're too fast.

Ayer: Yes, but I say a lot of things twice, that's all right, I catch it on the second time 'round.

I don't know; why should integrity demand consistency? One thinks that it does, but why shouldn't one judge things differently when the circumstances are always different? Why shouldn't one have the same flexibility in one's moral and political judgments as one wants for one's theoretical ones? I suppose one thinks that people are insincere if they don't maintain similar opinions in similar cases; but then the question of even what cases are similar is theoretically difficult.

I don't know: I dislike what you have just said—I think it's really the first thing that you have said at all, that I *have* disliked. This seems to me to

be really a conception of, well, I don't mind if it's called philosophy or not, and I don't mean that someone's trying in all honesty to solve problems that he thinks important, theoretically important or even practically important, but that somehow this represents a kind of deep narcissism, a digging down into oneself, contemplating: I'm not concerned with this. All right, it is possible that if I spent a year meditating I should perhaps dig up some very pleasant things; I don't know, I don't care. I've got better things to do in a way. I've got this problem, that problem, the other problem. I've got a certain intelligence. I'm going to use it for as long as it lasts. And perhaps, when I'm gaga I'll start contemplating in your sense.

Naess: Too late!

Ayer: And of what interest will that be to anybody?

Elders: I'll ask the same question, but not on a personal level. Would you say, Mr. Naess, that in your total philosophy intellectuals have a special responsibility at this moment?

Naess: Yes, because they are highly articulate. They are trained at universities in situations where they have at least three-quarters of an hour to think what could be argued against this, what could be argued against that; they get to be narrow and clever, too clever. I think that intellectuals might consider their intellects in a more Spinozistic way, as *intellectus* in the Spinoza way, and cultivate *amor intellectualis*.

Elders: Can you translate it?

Naess: *Amor intellectualis* would be a kind of loving attitude toward what you have insight into, while considering it in an extremely wide perspective. And intellectuals might do this without making the terrible mistake of becoming sentimental or fanatical. They would be able to say things to people in a more direct way and to articulate evaluations, their attitudes—*Einstellungen* or total attitudes—in a very forceful way while at the same time using some of the, in a narrow sense, intellectual training they have acquired in the universities.

They should be able to make us feel that to elaborate total views that are not expressive of something like “I am more clever than you are” is neither portentous nor necessarily favors some kind of fanaticism. When I say that you are, perhaps, deficient in articulation, it is because I feel you jump too fast to particular opinions on so-called facts, instead of taking a broad view and letting yourself say things which sound portentous and which might make you sound like a rhetorician or a politician, or even a prophet.

In this way I think that the intellectual of today, and especially the philosophically educated one, has a larger and wider function than that of being analytically minded. I’m sorry I use that catchphrase.

Ayer: Well, I don’t disagree with you on the question he asked. I do think that intellectuals obviously have a responsibility to do their job as they see it, and as well as they can do it; and also, I think, a social responsibility. I’m not a believer in the ivory tower at all; I think that anyone who has the capacity to think and to reason and perhaps believes, rightly or wrongly, that he can see things clearly, *should* try to contribute to social and even to political questions, so I don’t in the least dissent from you there. I don’t think that we quarrel at all about what we should be doing. What I think we may quarrel about is perhaps *how* we should do our job, and you might think that I do it in the wrong way.

Naess: Well, couldn’t you send me a copy of a speech made by you about a political situation?

Ayer: Indeed, I could send many. I mean, I’m constantly doing this; I’ve even stood for office, but I lost. I’ve stood on soapboxes on street corners. . . .

Naess: And there you use descriptions and norms.

Ayer: Ah, mainly normative, my language is then pretty emotive.

Naess: May I ask for instance, could you act as if you were now on a political platform? Say something real, “Bang!” like this.

Ayer: Well, I think that you can’t. Political speeches are not made in the ab-

stract. But if I knew local politics, I daresay I could make quite an effective political speech. I would point out how one side was acting in its own interest, more than the other, and how such and such a measure was perhaps an attempt to preserve privileges, or was associated with corruption, and all this would be highly charged emotionally.

Of course, we have to have facts behind it; it's no good saying so-and-so is corrupt unless you produce some evidence. But these two elements are mixed, obviously; and political speech has got to be factual, but with emotive overtones.

Elders: What's your attitude toward the Common Market?

Ayer: This I regard as a factual and technical question. I'm emotionally in favor of it, in the sense that I'm in favor certainly of larger units, against nationalism.

But economically I simply don't know; whether from the point of view of the ordinary Englishman in the street the economic price will become too high or not. And the economists are totally in disagreement. So, as a rational man, I suspend judgment. But I myself, if you like, feel European. I am by origin not purely English, I have some French blood, even on my mother's side Dutch, and therefore I'm emotionally in favor of a larger unit.

But I think this is partly a question of fact where I acknowledge ignorance. Whereas Naess, with his total philosophy, brings in different little facts. If he doesn't believe in facts, then why should he joke about them in this issue?

Naess: This is rhetoric, isn't it? [*Laughter.*]

Ayer: Of course it was, yes.

Naess: You shouldn't immediately give up so quickly in this way. Behind the rhetoric there are sets of value judgments.

I'm in a fight against Norway joining the Common Market. And one of the main things I'm against is putting larger units in place of smaller ones. I think that the larger units achieve greater technological advances and larger units of production instead of getting together with other peo-

ple in a nice personal way. We will get bigger markets, more standardized products, and we will take over some clever ideas from British universities instead of using our own less clever ideas about the university.

Ayer: I would think that some ideas from Norwegian universities might even be more clever than the ones I get at Oxford.

Naess: I doubt it, really. On the whole we are not clever, but we are provincial in the good sense of living our own way undisturbed by pressures from the great centers.

For me the question of whether to join the Common Market is not merely a factual and technical question. I am trying to connect my fight against the Common Market with basic evaluations. What are our value priorities? I see other people without analytical training taking up a philosophical point of view. I try to help them articulate their implicit systems in order to connect their ways of feeling with ways of asserting and evaluating things. Doing this I still feel myself to be philosophical and intellectual, whereas you would say it's more emotional, it's my emotional inclinations.

Ayer: No, I don't think so: on the contrary. I just said I thought it was partly a rational question, but I suspended judgment because I don't believe I have enough evidence. I mean I don't let my emotions dominate me here, because emotionally I'm attracted to the idea, but I suspend judgment as I'm not convinced of it intellectually.

Elders: So you couldn't be a good politician?

Ayer: I'd be a rotten politician, yes.

Naess: Just a minute. You couldn't be convinced intellectually? There I think you again use too narrow a concept of intellect. . . .

Ayer: No, I mean that if I were to take a final decision, it would depend, in part, upon the answers to certain economic questions, to which I don't think I know the answers.

Naess: Well, again you are displaying something narrow, I think—no, not narrow, but something peculiarly empirical—when you talk of a final judgment. But I can't make a final judgment about anything political, in a sense, because all the time that I am acting and being acted upon, here, all my judgments will be provisional.

But in spite of being decidedly against the Common Market, I could say that the range of facts known to me is probably narrower than yours; I know perhaps less about the Common Market. Decisions cannot wait until all the facts are gathered: they are never all available.

Ayer: Well, I hope the judgment is only final in the sense in which the reaction might be irreversible.

Elders: Irreversible, yes. Well, perhaps I could now ask my final and I think most difficult question; a question about the audience: do you think we have managed to get through to the audience, both here and at home?

Ayer: Yes, I think, in part. I mean, how can one possibly tell? I do think we have got through to the audience here in the sense that nobody walked out, and nobody threw things.

But inasmuch as we were both talking seriously and saying things we believed and things that interested us, and on the whole not trying to score off one another but trying to get at what truth there is in these matters, then I should hope that this at least would get through.

And perhaps, when one looks at two philosophers talking, this is what one wants to get through: the idea that these questions are important, some idea of what sort of questions they are, and some idea that one can really seek the truth about them without, perhaps, any notions of personal advancement.

Elders: And you, Mr. Naess?

Naess: I trust that we have got through to a limited extent, of course. I feel sure many people have turned off and are looking at something else.

Elders: Well, may I now suggest that we have a short discussion with the

audience? Perhaps we could agree about time. I suggest a discussion of half an hour.

Ayer: It has taken very long already.

Elders: You would like to relax a little?

Ayer: I must say it was not an easy passage of time.

Elders: Yet you have not walked out, Sir Alfred, after an hour and ten minutes. Well, may I have the first question?

Ayer: Get one done, yes.

Question: In the beginning, Sir Alfred, you gave a definition of philosophy that was entirely a negative definition. Philosophy is a kind of criticism, a criticism of belief and a criticism of knowledge, but I feel a certain tension between that kind of definition of philosophy and the opinions on everyday matters that you have and that you derive from what you call natural belief, or what is part of natural belief.

Ayer: Or common sense.

Question: Well, what is the relation between that positive conception of a rational belief or a rational certainty of the world that you have, and your negative definition of philosophy? And that question is related to another one—and here I feel that, perhaps, Mr. Naess would have another opinion—namely that natural belief is a thing which for itself has a criterion; you have criteria in order to be certain about certain things. But there can be different kinds of certainty, and so different kinds of natural belief. Why do you have this kind of natural belief and not another?

I don't know if this is perfectly clear, but I could elucidate this by giving an example. For instance, I imagine that I believe in ghosts, or I believe in the existence of Australia, where I have never been. I could give criteria for believing in ghosts, as I could give criteria for believing that Australia exists.

They would be the same kind of criteria. I've never seen either of them, never perceived them, never heard them, but I've read about Australia, and I've read about ghosts.

And I think that if you conceive natural belief in that way, then it could be possible to have another kind of natural belief; for instance in werewolves. I could be instantly afraid of you, for instance, because I saw a certain glance in your eyes which would be for me an indication that you were a werewolf.

Elders: Is the question clear?

Ayer: Yes, it's clear to me, I think. On the first part, I didn't intend my definition to be a purely negative one, and wouldn't in fact think it to be so. I mean that in one's questioning of accepted beliefs, or really of the criteria underlining accepted beliefs, one's attempt to clarify concepts, one can quite often come up with a positive answer. And I think there are examples in the history of philosophy; for example, Hume clarified the concept of cause, and I think that as a result of Hume's work one understands much better than people understood before what is involved in causation. I think he showed that the popular concept of causation was, to a very large extent, if you like, superstitious; but that there is then a residue remaining that can be clarified and be made quite precise. And I think, for example, that the concept of truth has been clarified, first by Aristotle and more recently by Tarski and so on; and, at present, I am myself working on the concept of probability and other people have worked on it. And I think that through this, one often arrives at something positive.

I don't at all want to say that one has to come to rest in scepticism, but only that scepticism was a kind of challenge posed to the philosopher, one that sometimes he didn't need, sometimes he left alone, but sometimes at least it provoked him into providing an answer, which was at least provisionally acceptable. I think I agree with Naess here that it's always only provisional.

I think the second half of your question was in fact very important and profound, because I think there is a kind of relativism here that is in a sense inescapable. The reason why we all believe in Australia when many of us haven't been there, is that it fits in with our general conceptual scheme;

there is nothing surprising to us that there should be a country on the other side of the world. We have a spatio-temporal framework into which you fit things: we already have a scientific, and after all, very fine, well-tested belief that the earth is round, so that there should be a country at the antipodes is something that comes quite naturally to us, so that here we accept testimony; we could go there and see for ourselves, but we don't bother to.

Now ghosts, even though they might be well attested—let's assume, for the sake of your question, that the evidence in favor of apparitions is even stronger than it is, or, much stronger than it is—there we become more cautious because it doesn't fit into our way of organizing the world.

Now you might say, Why not? After all, this has been true of some primitive peoples, so why don't I see you, not just as another man, but as, potentially, a werewolf, a being with all sorts of magical powers and so on?

Now, this could be a way of organizing my experience and it's a way in which people of other communities have, to some extent, organized their experience; and, in a sense, I can't refute it except by begging the question against it; except by assuming all sorts of metalogical criteria which are inconsistent with it.

So, in the last resort, I think, the answer here is pragmatic, in the way that it seems to me that, with a system of explanation of the sort I have, I explain phenomena more satisfactorily, I make more successful predictions than I do with an animistic system.

But if someone likes to see the world animistically, I don't think that I can refute him, because, as Naess pointed out in our discussion earlier on, the notion of fact is itself a dubious one, itself infected by theory. And I could say, well . . .

Elders: You've nearly converted him.

Ayer: . . . in a sense I'm more successful with my type of theory than he would be with his.

Elders: Well, Sir Alfred, he has nearly converted you.

Naess: No, no, what I would say is that I listened with pleasure because there you used some kind of a concept of *total view*. And so I congratulate

EMPIRICISM, POSSIBILISM, AND PLURALISM

you for making Sir Alfred show in practice that he is very near to thinking in terms of total view.

Ayer: Oh, in this sense, if you like to think of one's language and what's implied by one's language and one's general method as a total view, then certainly. I think connections are much looser within the conceptual system than you're making them out to be. But to this extent, certainly.

Elders: Ladies and gentlemen, this has to be the end of this debate. Sir Alfred, Mr. Naess, thank you very much for your total, clear discussion, on behalf of the audience, here and at home.

The Spirit of the Vienna Circle Devoted to Questions of *Lebens-* and *Weltauffassung*

Attitude Toward Research and Cooperation Within the Vienna Circle

The history of the Vienna Circle is bound up with what was called the *Wissenschaftliche Weltauffassung*. Given, however, the requirements of the members when it came to deciding whether or not a sentence expressed scientific knowledge, the basic sentences expressing a *Lebens- und Weltauffassung* would scarcely qualify as such, nor would hypotheses about a scientific worldview. The *Wissenschaftlichkeit* of physicalism, logical behaviorism, logical syntax, unity of science, were hypothetical at best, and in my opinion should not be identified with the total philosophical enterprise of the Vienna Circle. To its strictly speaking *philosophical* enterprise I attribute a certain kind of scientific or research *attitude* and *clarity* as much as any set of philosophical opinions of a substantial sort.

As I see it, the members excelled in clarity and in fairness and collaboration in debates. These characteristics they, like myself, found most effective and ethically acceptable among ardent “scientific” researchers. More-

Arne Naess’s contribution was read to the symposium “Wissenschaft als Kultur—Österreichs Beitrag zur Moderne,” organized by the Vienna Circle Institute as part of the “Focus on Austria” of the 1995 Frankfurt Book Fair. The German contributions were published in *Wissenschaft als Kultur: Österreichs Beitrag zur Moderne*, edited by Friedrich Stadler, vol. 6 of the *Veröffentlichungen des Instituts Wiener Kreis* (Vienna and New York: Springer, 1997).

This article was reprinted with permission from *Game Theory, Experience, Rationality*, edited by W. Leinfellner and E. Köhler (Dordrecht, Netherlands: Kluwer Academic Publishers, 1998), 359–67.

over—and this was unique in Europe—this admirable way of communication, of collaboration among very different personalities from widely differing backgrounds—was applied to philosophical problems.

I wrote about the above-mentioned aspect of the Vienna Circle a couple of years ago.¹ Here I shall mention again only the circle's excellent technique of offering various formulations of a view in order to arrive at clarification of disagreements and agreements. A typical question in a debate was, Would you accept that one could express the view you have by the sentence S_2 rather than S_1 ? In my work within the realm of what I call total views, comprising the classical questions of *Lebens- und Weltauffassung*, I have been heavily influenced by what I personally experienced in the Schlick seminar in 1934 and 1935.

The term *total* ought to have a bad reputation in politics, but I am speaking of views: explicit *but mostly implicit*; *both* normative (How do you think you *ought* to live?) *and* descriptive (What are the basic features of the conditions of your life *and* life in general in what you think is reality?)

This kind of sentence was used when someone thought he disagreed with a speaker but saw a *possibility* of agreement if the speaker could accept a different formulation, S_2 .

In trying to express fragments of total views in systematic form, we need to make clear which statements are meant to be declarative and which normative. Accordingly, I place an exclamation mark at the end of sentences intended to express a "norm," in the sense of announcements that something ought to be, should be, etc., and imperatives of various kinds, *including rules*. A system containing at least one sentence with an exclamation mark, I call normative. Thus, a small, central part of my total view is expressed, mainly for didactic reasons, in only one philosophical sentence with an exclamation mark: the one-word sentence "Self-realization!" From the basic philosophical normative sentence "Self-realization!" *plus* a host of declarative sentences, conveniently called "hypotheses," I derive new norms.

One of the reasons that the Vienna Circle tended to dislike what I call total views is that it associated them with claims to absolute certainty and to dogmatic truths. To hold a total view, however, is compatible with being a sceptic, at least a sceptic of the Pyrrhonic kind: maintaining an *epoché* in relation to every absolute certainty or dogma.² It is normal to retain

certain basic attitudes year after year but to change some opinions practically daily.

Why shouldn't analytic clarity and the research attitude be applied in what I always have taken seriously, namely, most general orientations, and their manifestations in conflicts?

The Status of Basic Views on *Life and World Until Now*

Until the twentieth century *Lebens- und Weltauffassung* belonged to the central part of academic philosophy, and certainly to "philosophy" in a more general sense. Diogenes "in the barrel" expressed himself mainly through nonverbal behavior. He did not offer long, difficult arguments in favor of his *Lebens- und Weltauffassung*. This is one of the reasons that he is not accorded as many pages in textbooks of philosophy as are some of the other classical Greek philosophers. He is scorned as an academic philosopher, but nobody—and this is important for the current argumentation—contests that he was a philosopher.

In the great cultures of the East, in India and China, philosophy of life, of society and the cosmos, had an important function, and if we look up the names of the main figures, until recently, we are reminded of great teachers of how to live, and how not to live. Science did not play an important role.

What is the status of *Lebens- und Weltauffassung* today? The question comprises both academic and nonacademic philosophy. My answer is not uncommon and not original: the concern in academic philosophy is feeble, *sehr schwach*, but among people and in social debates, rather strong and getting stronger.

Sources of Currently Increasing Interest

The concerns that stimulate life- and worldview reflections today, especially in the *materially* richest countries, are widely recognized as important. Here is a short summary.

The movement from *Gemeinschaft* to *Gesellschaft*. Ferdinand Tönnies published his famous book contrasting *Gemeinschaft* and *Gesellschaft*, community and society, about 100 years ago. We live in a community when we have a positive feeling of having much together, being much together, do-

ing much together, occasionally helping one another. Now we, in the rich countries, live in a mere society when there is a system of rules binding people together in a more mechanical way: a common forum of decisions affecting competing group interests. I might call these societies pressure democracies, wherein powerful pressure groups protect vested interests and a police force, rather than a father, sets limits.

One may question whether we in the earlier twentieth century had much *Gemeinschaft*. In Norway we had a class society, but more than 80 per cent of the population lived in rural communities with a high degree of community. The important point is that the direction of development seems to be toward less and less community: toward individual *autonomy*, even within families. One should not rely on help; one needs no assistance; rely on psychiatrists and other functions of the state. Autonomy is clearly different from former ideals of individualism.

Another new term is *entrepreneurial culture*. Society must be organized in such a way that entrepreneurs enjoy better conditions for the realization of their ideas. What kind of ideas? Any noncriminal designs, it seems, but with emphasis on economic growth and competition.

Closely connected with concern about the disappearance or decrease of community is, of course, concern about mindless, physical violence: violence seemingly lacking motivation. What we conceive of as fellow human beings are not always seen as such, but as mere objects. There is also concern about criminality in general: the United States is leading the way with more than a million people in prison, a kind of place generally recognized as not highly conducive to change of lifestyle.

Then we have concerns of a philosophical kind, about mass media and the global force of advertisements now estimated "to cost" about a trillion U.S. dollars annually. Mass media are ethically, if not neutral, at least pressing for the least possible interference by any norms of an ethical and educational kind, and pressing for increased societal dependence on markets.

Many perceive a resulting threat of *Gleichschaltung*, a decrease of deepness in cultural differences, an increase of standardization in spite of a multiplicity of tiny subcultures, especially in rich, great cities.

I now go back to the question of advertising. The private producers of goods and services on the market very naturally try to increase their sales and cannot be supposed to distinguish needs from desires, a philosophically

important distinction. The great thing is to create what people *feel* to be needs. It is now recognized that growing material so-called needs increase ecological unsustainability. Because I have worked for more than twenty years in this problem area, I shall go into it in some detail.

In 1972 the Club of Rome published its important *Limits to Growth*. In 1992, two members of the group, Meadows and Jørgen Randers, wrote the sequel *Beyond the Limits*. It is an even more important book, showing with a great number of diagrams that curves that should go up actually go down, and curves that should go down, go up.

The turn from increasing to decreasing unsustainability is not yet generally recognized to require in the rich countries a formidable change in average lifestyle. In addition, the rich countries must try to inhibit the increase of the material standard of living occurring in Southeast Asia, China, and other parts of the globe. Even if the rich nations succeed in this, the impact on ecosystems by, say, the 800 million richest people may surely reduce the richness (abundance) and diversity of life on Earth.

A new philosophical situation has arisen in the last part of the twentieth century. We have to take into consideration five warnings:

1. Ecological unsustainability is increasing.
2. People in the rich countries live (on average) in a way in which they cannot seriously wish that others, who would also like to live that way, will actually be able to live.
3. Decreasing the growth of unsustainability implies decreasing material standards of living in the rich countries.
4. Most of the cost in work and money necessary to change from increasing to decreasing unsustainability must be furnished by the rich countries.
5. Any delay increases the cost exponentially.

In 1998, the Worldwatch Institute roughly estimated the cost of a change from increasing to decreasing unsustainability: about 17 percent of the sum of global military investment at the time, \$149 billion (American) a year. Today (1999), a rough estimate may have reached the sum of \$200–250 billion. It is a vast sum, but not overwhelming.

A concept introduced by Immanuel Kant deserves close inspection to-

day. It is found in one of his early works, and few people seem to be aware of its existence. It is a concept of a *beautiful* action as essentially different from a moral action. An action is moral if it is *only* motivated by respect for the moral law. If we do exactly what is required by that law, but out of some other inclination (*Neigung*), then we do not act morally. Kant then goes on to say that if we act so as to satisfy the law, but also out of positive inclination, then we act *beautifully*.

Who would not like to act beautifully? From the point of view of ethics, as many of us see the situation today, the way to proceed in overcoming the great evils is not to preach but to find ways to describe the goals and the means to those goals so that they are *attractive*. This is difficult, but not impossible.

The five warnings are of a character that requires philosophical reflection along predominantly new lines.

The worldview, the *Weltauffassung*, centers on our world, conceived as our planet *Earth*, not the cosmos. How do we personally experience our participation in changing the life conditions on the planet, the rapid decrease of biodiversity and animal abundance and habitats, the increase of the domination of human beings over increasing areas of the planet? How do we experience the present social and political incapability to meet the challenge?

What kinds of ontology, epistemology, and ethics are conducive to strengthening the motivation of large-scale measures to ensure a change from increasing to decreasing unsustainability?

Also from questions essentially having to do with our *Weltauffassung*, we are led to questions of *Lebensanschauung*: in the rich nations, how to apply slogans like "Rich life, simple means," that is, means requiring less use of energy, less polluting, less waste, etc.; in the poor countries, how to increase the material standard of living but avoid development in the direction adopted by the rich countries—in short, how to implement the increase by "leapfrogging" the way leading to the rich countries' unsustainability.

Of the many contributions to what sometimes are called ecophilosophy and ecosophy I might mention the concept of the ecological self. As far back as Aristotle (in the West) we have declared humankind to be "special animals," or better, "social living beings." Human beings are, from one

very special point of view, highly mobile parts of the surface and lower atmosphere of our planet: they are the only parts that somehow perceive all other parts and appreciate them.

An extremely important, more or less spontaneous process is that of *identification* with other forms of life, that is, a perception of animals as in some ways like us, a perception that one can do something for their sake, that they, like us, have needs and interests. Philosophy of life has now a new social and political impact. Those who strongly appreciate life on the planet and strongly identify with animals and plants, whether those life-forms are in a narrow sense useful or not, are active in the effort to change lifestyles, institutions, and politics in the direction of sustainability. Important also is that they look for a gain in quality of life whenever possible from every step toward responsible ecological policy and are willing at any time to give up much of the typical rich country's goodies.

Green politics, with a capital *G*, is only one point of so-called ecosophies, total views in part inspired by work in favor of overcoming the ecological crisis. One may, of course, be an activist in Green political contexts without referring to, or being motivated by, a philosophy of life or worldview. Those who do have such a worldview, I call supporters of the deep ecology movement. Deepness is in this context defined in terms of chains of premise-conclusion relations. The supporters are in part motivated by their ultimate premises, their ultimate norms, and their descriptive views of the world. In short, they involve their *Lebens- und Weltauffassung*.

Why did not conditions lead earlier in the twentieth century to a philosophical awakening? One factor was a focus on language rather than on life, society, and the world.

The detrimental focus on language started explosively with Wittgenstein's *Tractatus logico-philosophicus* and logical empiricism. According to Rudolf Carnap, human systematic knowledge was, roughly speaking, of two kinds, the scientific and the syntactic. Questions of philosophy were in part reduced to logical syntax, in part dismissed as cognitively meaningless but emotionally important. With *Tractatus*, questions of value, of normativity, of ethics, and therefore also of politics were shoved into a sphere of mystery. There was no place for philosophical *research*. In the 1940s the anti-research attitude was consolidated with Wittgenstein's *Philosophical Investigations* and the ordinary-language movement. Empirical *research* on lan-

guage was shunned or deemed philosophically unnecessary. It was felt that intelligent reflection and intuitions concerning one's own language should be enough to solve, or dissolve, traditional philosophical problems. This trend is, if no longer dominant, very much alive at the close of the century. Philosophy professors still talk in terms of "getting the fly out of the bottle," that is, through considerations of language to set people free from warring about what were, for more than 2,000 years, considered to be great, universal philosophical problems in both the West and the East.

Less serious, but not without influence, is a quasi-philosophical trend that tries without much success to undermine belief in value priorities and the search for truth. Its adherents scorn any broad and deep movement that attempts to come nearer to solutions of great problems: of peace; of unacceptable, desperate poverty and oppression; of the ecological crisis. Instead of systematic approaches, we should limit ourselves to small narratives and cultural conversations!

So far I have talked about *Lebens- und Weltauffassung* in general terms. Now I shall exemplify what I mean by pointing to Spinoza. This thinker was venerated by members of the Vienna Circle, but the tendency was to consider his problems, insofar as they were real, to belong to psychology and the social sciences. I call my total view—if I can be said to have one—Spinozistic. I refer to a class of total views comprising variations of interpretations, elaborations, and reconstructions of Spinoza's system as formulated (mainly) in his *Ethics*. The term *reconstruction* I introduce in order to characterize interpretations of the text that Spinoza himself in part would presumably reject, but that the text admits.

It is my contention that the way I work shows the influence of the spirit of the Vienna Circle.

One may even say that this spirit is traceable in many ways, and that it provokes negative reactions of the same sort that we experienced in the 1930s: the intrusion of tools such as symbols used in symbolic logic into humanistic studies, taking definition and deduction seriously, and related "hard" ways of thinking. One of the characteristic traits of my study of Spinoza is that I take his definitions and definition-like ("definitoid") sentences seriously. If a sentence is a definition in a certain narrow sense, it implies that one may substitute the definiens expression for the definiendum expression, and vice versa, in the relevant text (in my case, the *Ethics* of

Spinoza) without changing the intended meaning. The style of the text may be heavily damaged in this process, because the definiens expression may be complicated, perhaps consisting of 100 words, whereas the definiendum expression (a sentence or a term) may consist of only one or two—but that is irrelevant. Spinoza uses about a dozen sentences that may imply either complete or not-complete substitutability. Thus, if he says that something, x , is *the same as* something else, y , he may roughly mean what I would declare by saying that x and y *denote* the same (but that “ x ” and “ y ” do not necessarily *connote* the same). There would scarcely be complete substitutability. Such substitutability *may* sometimes be complete, because he in other places in his texts uses stronger expressions to identify the particular x and y .

Noting the occurrence of the definitoid sentences, I work with a list of 243 definitoid sentences. Some are slightly reconstructed. They are standardized and said to announce “equivalences” among *centrally important* terms in the *Ethics*.

Through the use of the equivalences, I leave the words *Deus* (God) and *substantia* (substance) out in my version of parts of the *Ethics*. In Spinoza’s day one could scarcely dispense with those words, but today we can, and *the perfectly immanent God* of Spinoza invites us to eliminate the words that for most people denote transcendental entities. Speaking about entities, I use Occam’s razor and the second “definition” (*definitio*) in part I of the *Ethics* to eliminate the word *essence*. Incidentally, a modern logically conscious reader would tend to say that that “definition” is two definitions connected with “or” (*vel*):

II. I say that to the essence of anything pertains that, which being given the thing itself is necessarily posited, and, being taken away, the thing is necessarily taken away; or, in other words, that without which the thing can neither be nor be conceived, and which in its turn cannot be nor be conceived without the thing.

What Spinoza calls *definitio* is transformed in this case into two equivalence sentences implying universal substitutability in the text.

Using Spinoza’s definitions in this way, the *Ethics* can be “reconstructed,” not violating the text at any point. Spinoza would personally object to some of the reformulations, I presume. It would depend in part on

which stage of his life we refer to. In his last years he would perhaps have tolerated more of the changes than in his ardent youth.

The intricate web of the *most* central terms (about fifty) and their equivalences can be surveyed in its fullness through the use of symbolic logic. I use only propositional logic and predicate logic. I do not see how we can conveniently keep more than a thousand relations in mind without such an instrument. In those not acquainted with logic, however, the symbols tend to arouse negative feelings.

Of the terms that are connected with others through equivalence relations, I may mention the following: *acquiescentia* (5 relations), *aeternitas* (5), *affectus* (19), *amor* (10), *anima* (8), *bonum* (7), *causa* (21), *conatus* (16), *libertas* (3), *potentia* (32), *ratio* (30), *virtus* (18), *volitio* (3). About 100 terms in the *Ethics* are connected with one or more definition-like sentences. It is often said about certain philosophers that their vision is fundamentally simple and “one.” The equivalences testify to that. “To be in itself” is equivalent to “to be able to be conceived through itself,” which is equivalent to “freedom,” which is equivalent to “to be self-caused,” and so on. The kind and intimacy of the equivalences show great variation, however.

Two years after publication of my book presenting “the structure of a central part of Spinoza’s *Ethics*,” the tricentennial of Spinoza’s death was commemorated in Amsterdam. Here he was laid to rest in the Nieuwe Church. I felt it to be a vindication of the acceptability of my sort of analytical approach to his supreme work that I was invited to deliver the speech in that church. Even if no other Spinoza scholars have so far taken up work of my kind, I believe in a great future of analytical clarity in life- and worldview philosophy. Announce a lecture on Spinoza’s immanent concept of God and you may expect 20 students to come, but 200 may show up. Logical clarity and empirical work have a place *within* the framework of creative metaphysics.

Spinoza’s theorems about the favorable function of active emotions on the way to higher degrees of freedom are in principle testable empirical hypotheses and at the same time genuine parts of his metaphysical system. This was not denied by Vienna Circle members. It is a grave misunderstanding that the text of the *Ethics* is somehow deductive, or at least meant to be deductive. Of its five parts, part III and the lengthy part IV are full of empirical hypotheses. If the interest in them had been great enough, the work could have started to try to devise tests.

The limited empirical attitude of some of the members of the Vienna Circle showed itself in discussions of whether Alfred Tarski's work on the concept of truth furnished an adequate definition of truth. The conclusion Rudolf Carnap and others reached seemed to be that *logical* analysis showed it to be adequate. My view was that adequacy implied agreement with at least one way in which the words *true*, *false*, *wahr*, *falsch*, etc., actually have been used in speech and in texts. Only empirical research could, as I saw it, establish the *limits of the domain* of actual occurrences of the words within which the Tarski definition was adequate. I accept that there is such a domain and that it is an important domain, but also that there are several usages, even *within scientific texts*, that are outside the domain. This conclusion rests on the analysis of several hundred occurrences of *true*, *false*, *wahr*, *falsch*, and closely related words.

I mention this because empirical research on usages of a term indicates that an extended use of what might be called the Mach-Duhem-Poincaré theorem is warranted. Roughly speaking, it says that given a set of observations, there are indefinitely many mutually incompatible hypotheses that can be made to cover those observations satisfactorily. Studying occurrences of verbal utterances, we may find indefinitely many mutually incompatible sets of rules that cover these occurrences. One cannot simply "see" which rules the occurrences of the word *true* obey in ordinary speech or in scientific publications. It helps that the word belongs to one's mother tongue, but acquaintance is not the same as knowledge. The partial *adequacy* of Tarski's definition can only be corroborated through *research* that in part is empirical. Neither Tarski nor Carnap found it necessary to stimulate *empirical* research of this kind (as a genuine part of philosophical work).

In my reconstruction of a central part of the *Ethics*, I use about forty predicates; for example:

L(x)	x is free (<i>liber</i>), partially or totally, adequately or inadequately
Rat(xy)	x acts rationally in relation to y
NPC(xy)	x belongs to that without which y cannot be conceived
Mel(x)	x is in a state of melancholy

The "Mel(x)" could easily be omitted, but certain considerations of terminological symmetry made it natural to introduce it.

As could be predicted, when people from humanistic or literary back-

EMPIRICISM, POSSIBILISM, AND PLURALISM

grounds saw my text with its strange symbols, they mostly closed it in fear or disgust. (This at least is my suspicion.) Since I was seventeen years old I have read Spinoza in Latin and acquainted myself with some symbolic logic, and my total view, if there is any, clearly belongs to the class of Spinozisms. Consequently, for me a reconstruction, including the symbols, is significant in my practical life.³

Creativity and Gestalt Thinking

Long and intense training is required to express in words major aspects of a spontaneous experience. We enter a room and “the room” makes an impression upon us that we express in conventional terms by *light*, *dark*, *cozy*, *small*, *cold*, *beautiful*, and so on. These terms, however, are (of course) class terms. We experience an *instance* of coziness, not coziness in general. By uttering “cozy” we have only started on a verbal report, namely that of the particular content, different from any other, that makes us utter the general term *cozy*. Perhaps it was the first time we entered the room; the next ten times may also elicit a spontaneous experience, an aspect of which makes us utter, for example, “cozy as usual,” “cozier than usual,” or which does not make us utter anything like that. We may for a moment think “not *so* cozy,” or there is at least a faint or weak feeling of disappointment which seems to relate to a less vivid or less convincing impression of coziness.

It is common to look to poetry for vivid and beautiful verbal expressions of spontaneous experiences.

The yellow fog came creeping down
 The bridges, till the houses' walls
 Seemed changed to shadows and St. Paul's
 Loomed like a bubble o'er the town.
 (Oscar Wilde)

Some expressions reveal separation from the spontaneous: “seemed.” Others do not—for example, “yellow fog came creeping down” instead of

This article was reprinted with permission from *The Structuralist* 33/34 (1994): 51–52.

the reflective “yellow fog seemed to be creeping,” and “changed to shadows” instead of “looked like shadows” or “seemed to change to shadows.”

The poet makes us more or less adequately create spontaneous experiences, or better, elicit spontaneous experiences, some aspects of which are inspired by the poem. In a flash we see yellow fog creeping down.

Accomplished poets, writers of novels, and a variety of artists use words in brilliant ways to express aspects of their spontaneous experiences, but of course we all verbalize, however crudely or conventionally. A spontaneous experience may be of burning intensity but our words flat, dull, and conventional.

In the case of artistic expressions, creativity is obvious, and the spontaneous experiences are the obvious, infinitely rich source. Can the same be said of creativity in mathematical physics? The physicist is not asked to express a spontaneous experience, but his need to use vernacular terms such as *waves* and *particles* for immensely abstract entities reveals dependence on concrete contents of experience in order to create. What is called the function of imagination, whether in writing novels, inventing gadgets, or constructing physical theories, is to elicit spontaneous experience where we “see” something. Instead of keeping only to the algebra involved, the physicist sees the equation in the form of a “real” wave. However abstract the reasoning, the mind needs concrete contents. The world of metaphysics is polluted by creatures suggesting *aspects* of vivid spontaneous experiences.

Within contemporary literature loosely referred to as postmodern, we find interesting ways of speaking that *seem* to tell us that our society “constructs” reality. Expressions such as “the (dominant) conception of reality within a society” are avoided. It is sometimes suggested that we never experience reality as such because we are limited to what our texts and narratives instruct us about what is real.

Against this view it is pertinent to insist that personal spontaneous experiences (of gestalt character) acquaint us with the real. The richness of those experiences is such that verbalization can only refer to aspects of them. The gestalt character in an obvious way implies richness. When in a certain situation a subordinate tonal gestalt within Beethoven’s Fifth Symphony is experienced by a definite person who knows that symphony well, aspects of the whole symphony and perhaps aspects of recent experiences of going to a concert color the content of the *total* spontaneous experience.

The complexity may perhaps be said to preclude the formation of a text that adequately expresses the experience, that is, adequately describes the total spontaneous expressions (in their full richness). Rarely does a situation occur in which we are motivated to engage in such an endeavor. Moreover, the need to act requires us to focus on definite aspects of the spontaneous experiences. The yellow fog creeping down a bridge over the Thames *instantly* elicits a decision to wear a coat or some other decision.

It has been suggested that the immense power of the new forms of mass communication narrows down our conceptions of reality in such a decisive way that our spontaneous experiences reflect what is mass communicated, and our capacity is destroyed to experience anything that is squarely incompatible with mass media.

The importance of increasing our awareness of the influence of mass communication is obvious. It should not, however, diminish the trust we have that we are able to make full creative use of our access to reality through our own spontaneous experience. The confidence of having a *source* of creativity that never disappears (until our mental capacity completely disappears) might be undermined by speaking as if we are imprisoned in our conceptualizations—our socially accepted metaphors and texts. Spontaneous experience transcends personal, social, and cultural specifications. That is, any attempt to nail down the dynamic, process-oriented character of gestalt experience by specifying a person, a society, or a culture, pretending that the gestalts belong to a definite kind, is in vain. The attempts by historiographers to characterize epochs (the Renaissance, Baroque, Enlightenment, and Romantic periods, for example) are frowned upon by historians who delight in complexity, not uniformity, in irregularities as much as in regularities. When we conceive an event as part of a whole, for example, as part of a campaign or a war, the conception of the event is furnished with *emerging* properties. The event, defined in terms more or less common to the members of a group or society, becomes part of a social stereotype, but this does not totally inhibit the creation of nonstereotype gestalts. The range of creativity may be reduced, but it is not destroyed.

The formulation of cohesive communities and societies is said to depend on shared values, on consensus in vital matters of life. These have gestalt character, but even in traditional societies with stable shared values,

processes of change are going on. They depend on creativity, and the main source is the richness of spontaneous experiences.

If in a storm, for a moment I have the impression that a tree is going to hit me on the head, there are spontaneous experiences of tree-and-me, but in general, spontaneous experiences focusing on a tree do not also contain me. There is not a subject-object cleavage in every spontaneous experience, only in a small subgroup of them. *Cogito ergo sum* does not seem to hold necessarily unless an instance of cognition is a gestalt with a "me" as a subordinate gestalt. It is not easy to imagine, but a human being capable of focusing steadily on something else would be aware of a subject, a "me."

Children are apt to lose much of their creativity when they are repeatedly confronted with statements from adults such as "No, it is not *really* so." Consider a child who sees a dog as threatening. Instead of saying "You are *wrong*, the dog is not threatening," one may insist that it will not bite or do other things the child fears may happen next, or that running away is not advised.

The richness and intensity of spontaneous experiences often induce strong expectations about what will come next—they may induce spontaneous actions. Here the adults, with their largely socially determined common sense, are indispensable as guides. However, if they use terms such as *wrong*, *mistaken*, and *nonsense* or react with a laugh, the child starts to distrust what he experiences. He starts to believe in a social and objective reality that is only a kind of meeting point within a community, a consensus reality devoid of originality, and only a kind of a skeleton: a mass classification of items. "You ask what you see there? It is just a common daisy!" Spontaneous experience, however, is never *just* a specimen of a class, the vast *class* of daisies. What is experienced spontaneously is something that never has been experienced before and will never be experienced again.

The gestalt terminology helps us avoid the conception that "what there is" is a mass of things and their external relations. The relation between gestalts is that of more or less comprehensiveness, like the gestalt units within the larger units of Beethoven's Fifth Symphony. A performance of the symphony is only a collective name, socially essential, to assure geographical unambiguity.

What is experienced by a member of the audience is not simply the symphony, but the symphony in a setting that is peculiar to each member.

There will be a unique series of spontaneous experiences of gestalt character. A young composer listening will perhaps be inspired not to create within the style of Beethoven, but to write something in a grander style than he is accustomed to. He or she will treasure and recapture the total experiences. The other members of the audience may through their particular gestalt experiences increase what is called their originality. They communicate in less conventional terms and metaphors.

Education is officially concerned with learning, but unlearning is a phenomenon that ought to be taken more seriously. One learns to neglect certain aspects of spontaneous gestalt experience; certain, mostly very subordinate gestalts lead to socially advantageous actions. The larger frameworks are socially irrelevant, misleading—you will soon be called a dreamer if you stick closely to the more comprehensive or idiosyncratic aspects. Utilitarian, pragmatic, and practical concerns are like pressures reducing the intensity, normalizing the seemingly chaotic changes of what is experienced, standardizing and simplifying. We unlearn in a way in order to be useful citizens, but mostly or always at the cost of originality and creativity. What can be done in education is to oppose the extremes of unlearning and to try to enable children to change viewpoints from the action-oriented to the focus on gestalt experiences, and back again. As it is now in at least some industrial states—for example, the Scandinavian—education is increasingly utilitarian in spite of a material richness that should open great opportunity for a wider acceptance of the nonutilitarian.

Do We Know That Basic Norms Cannot Be True or False?

The question of whether norms can or cannot be true or false is largely discussed as if it were capable of a solution a priori.¹ In this paper I try to show that the traditional a priori arguments against the possibility that norms are true or false are not decisive and that a posteriori arguments may at least become relevant.

One of the main contentions in what follows is that if it can be the case that something ought to be, then it can be true that something ought to be, and that whether something is the case cannot be known a priori. Experience may disconfirm our hypotheses as to what is the case—if experience can disconfirm anything.

Another main contention is that in relation both to basic norms and to basic nonnormative statements of science, there are grave questions of justification that make the application of the terms *true* and *false* to them problematic. If the claim to truth-value of basic norms is as well (or badly) established as that of basic statements of science (and metascience), then the applicability of “true” and “false” to basic norms follows from their applicability to basic statements in the sciences.

A Priori Arguments

In a posteriori argumentation, conclusions have an inherently ad hoc character: future experience, the term taken in wide senses, may overturn them.

This article was reprinted with permission from *Theoria: A Swedish Journal of Philosophy* 25 (1959): 31–55. Parts of this paper, with slightly different conclusions, were published as an article in *Logique et analyse* 1 no. 1 (1958): 4–13.

Or, if one retains the conclusion, one may be forced to adopt increasingly complicated and arbitrary auxiliary hypotheses. The spirit of research on questions a posteriori shows itself in the systematic and careful way in which the researcher prepares himself for disconfirmation as a result of new observations. These may indeed overturn his ad hoc conclusions, but this does not impair his joy in a posteriori research. It is an essential part of the game.

In the debate concerning the objectivity of norms, there is very little reference to contemporary or future empirical research or to other sources by which to improve upon the certainty or accuracy of the arguments. One reason for this may be that main arguments have a strictly a priori character, or are believed to have that character.

What are now the main arguments (if any) that have a justifiable claim of being a priori?

Let us first declare that the term *a priori argument* will be used to express a concept such that whatever will be *observed* in the future, an a priori argument will remain relevant (or irrelevant), true (or false). It cannot possibly change relevance or truth-value because of such observation.

Such a concept of a priori does not have as conceptual characteristics generality, finality, or apodicticity. The *possibility* of verification or confirmation, falsification or disconfirmation by future action is not denied, but *observational* statements will not be relevant.

The irrelevance of future observation refers only to observations concerned with the phenomena about which the argument asserts something.

The Doctrine That Norms Cannot Be True or False

The prevalent tendency in Anglo-American and Scandinavian philosophy and social science is to question or deny the *possibility* of knowledge of a normative kind, for example, normative ethical knowledge. According to this dominant trend, we know or may know the shape of the Earth, but we do not know and will not possibly come to know whether one should act so “dass die Maxime deines Willens jederzeit zugleich als Prinzip einer allgemeinen Gesetzgebung dienen könne.” The difference is often expressed in condensed form by saying that whereas a proposition may be true or false, a norm cannot be true or false. A norm may be valid or invalid, but that kind

of validity is different from that of propositions, that is, different from truth.

Which are now the arguments put forth to strengthen the position that normative knowledge is impossible? In what follows we shall inspect a sample of proposed a priori reasons for the impossibility of basic norms being true or false. The sample includes an example of each of the main kinds or families of arguments put forth in contemporary philosophical debate, insofar as they can be isolated from their specific, usually very complicated, context. The arguments that clearly are meant to be a posteriori are not included. Thus, the argument of A. Ross (1945) concerning lack of agreement on the value qualities of objects is left out.²

An Argument from Logic or Semantics: Norms Are Not Propositions

Let us inspect the following argument: True and false are, as used philosophically, predicated only of propositions. Norms are not propositions. Ergo, norms cannot be true or false.

Two Counterarguments

There are two counterarguments to be mentioned at once. In framing the first counterargument in what follows, we presuppose that the expression “as used” means the same as “as actually used until now.” That is, the argument concerns the denotata, not connotation of truth or falsity.

If instances of the use of a predicate are known and arranged chronologically, we may at any definite time list common characteristics of the denotata. The next instance of use may, however, present a denotatum that lacks one or more of these characteristics. Even if it were the case that the denotata of the predicates “true” and “false” in philosophical literature always have been propositions, and norms are not propositions, this does not exclude the possibility that truth or falsity is predicated of a norm next time.

Some time ago, “carnivorous” in zoology expressed a predicate applied at that time only to animals. A materially adequate definition of “carnivorous” might therefore at that time include a restriction to animals. The ex-

tension of the predicate included only animals. Today we speak also of some carnivorous plants. If someone had eagerly proposed a definition such that the term *carnivorous plant* is contradictory, so much the worse for him!

It is not the business of philosophy to ossify terminological regularities. The argument that until now only propositions have been labeled "true" or "false," or that certain definitions of yesterday include a restriction to propositions, begs the question. It presupposes that those beliefs are true that make it convenient to adhere to a terminology that is under consideration. Now, this is a presupposition that may turn out to be false. If so, the definition of "truth" or of "proposition" may be changed with good reasons, reasons that are good because of certain changes in opinion, owing, for example, to new discoveries. In short, from premises telling us how the terms *true*, *false*, *norm*, and *proposition* have been used until now, we cannot conclude that norms can, or cannot, be true or false. This holds whatever such premises are telling us.

Now, if it were shown that norms might be true or false, the rules of ordinary logic could be applied to them. Norms derived from true basic norms plus hypotheses from various sciences would be true. Thus norms and (nonnormative) propositions could be treated in the same way within important considerations. If such a possibility were realized, it would furnish an argument for calling the norms propositions, that is, a good argument for reconsidering an old classification, adjusting the delimitation of classes of phenomena to new insights and changing terminology.

Summing up the first counterargument, it may be thus formulated: The fruitfulness or convenience of a classification system of entities into propositions and nonpropositions depends on certain things we do with propositions, certain operations, for example, applying the calculus of propositions to them. If norms may be treated as propositions in making deductions, this might be a good reason for revision of the *fundamentum divisionis*: we might then include norms in a broad class of entities, the class of entities capable of being true or false, a class covering both nonnormative propositions and what might be called normative propositions.

A second counterargument is relevant if truth-value of norms is rejected on the ground that it violates rules of vocabulary or (normal) definition: there are many proposals for definition of "norm" and "truth," none of which enjoys general consent among philosophers, but even if a now gener-

ally accepted definition ruled out the possibility of true or false norms, the terms *true*, *false*, and *norm* have for a long time been used in such ways that to speak about norms as true or false has not involved contradiction. It is a perfectly legitimate undertaking to study the relation of truth and normativity on the basis of the noncontradictory usages, thus rejecting a definition that within a certain time interval was generally accepted. In short, since the terms *true* and *norm* have been, and still are, used in ways such that “the norm *N* is true” will not constitute a contradiction, references to nominal definitions such as “the norm *N* is true” that represent contradictions in terms, cannot show or prove that norms cannot be true or false.

We admit that “norms cannot be true or false” is true in relation to all those systems of nominal definitions that make the sentence a *contradictio in adiecto* but add that these are not all systems, and that the other ones are in no bad relation to common usage.

Tentatively, we conclude that the first argument is a bad argument. It does not support an a priori rejection of there being true norms or genuine normative knowledge. It presupposes that the rejection has already been justified on some other basis.

A Semantical Argument: Norm Sentences Are Meaningless and Therefore Cannot Be True or False

Basic norms—or, more generally, pure norms—are expressive of feelings; they lack the symbol function characteristic of sentences expressing propositions. They may therefore be said to lack cognitive or theoretical meaning. Now, the predicates “true” and “false” apply only to cognitively meaningful statements. Their connotation or conceptual characteristics entail such a limitation. Therefore, basic norms cannot possibly be true or false.

Counterargument

The first premise involves two hypotheses in psychology or the social sciences: that norms are expressive of feelings and that they lack the symbol function. These are interesting working hypotheses, which perhaps may be strongly confirmed by future research. Actually, the first would be regarded as well confirmed by many psychologists. It is not clear, however, why the

function of expressing feeling should have lack of a symbol function as a necessary consequence. The second hypothesis is independent of the first.

Anyhow, both hypotheses are inadequate as part of an a priori argument. If the premise were established a priori, it might have been justified to use the strong expression “cannot possibly be true or false” in the conclusion. If, however, the premise in the future will only be strongly confirmed, the conclusion will only attain the status of a strongly confirmed hypothesis, useful only in a posteriori argumentation.

An Ontological Argument Against Normative Knowledge

Let us then proceed from the semantical or analytical argument to an ontological one: a true statement asserts of what is that it is and of what is not that it is not. In other words, it asserts that what is the case *is* the case and what *is not* the case is not the case. Or, truth is *adequatio rei et intellectus*—truth consists in agreement with reality.

These formulas (and others) are traditionally used in references to the so-called classical conception of truth.

Now, says the argument, take a norm stating that this or that *ought* to be. *Be* and *ought to be* are not the same; neither are *not to be* and *ought not to be*. The Aristotelian tradition thus implies that the norm cannot be true or false.

Moreover, the formula *adequatio rei et intellectus* presupposes a *res*, an object that our statement says something about. This object must actually be there, not only ought to be there. Similarly, the formula “agreement with reality” presupposes a reality or state of affairs about which we are saying something.

Now, according to the Aristotelian tradition, there do not exist any entities, either immanent in the world or transcending it, that are capable of forming the truth-condition for a norm.

Counterargument

Let us inspect the sentences “It is true that there are black swans” and “It is true that you ought to love your neighbor as yourself.” The classical, Aristotelian trend in definitions of truth admits the formula that it *is true that* there are black swans if it *is the case that* there are black swans. What is the

object, the res, the reality, with which the statement must agree in order to be true? It is the condition of something being so and not otherwise, that is, of something being the case. I think this answer does not amount to more than a repetition of the use of the expression "is the case that." The introduction of terms like *object* and *reality* suggests extension. Perhaps something may be the case without presupposing anything extended. If this possibility is rejected in advance, the discussion in this article is made pointless by an a priori postulate.

Semantically, the formula "if it is the case that x , then it is true that x " applies to the Golden Rule. We may say that *it is true that* you ought to love your neighbor as yourself, if it *is the case that* you ought to love him that much.³ If this is so, the norm asserts of what is, that it is. It does not say that actually you love your neighbor. The state of affairs, or reality, it designates is the one *that you ought* to love your neighbor. Compare the following way of speaking: "*Is it so* that you ought to love your neighbor? Yes *it is so*." If this "is" is too abstract, too insubstantial or shadowy to permit the terms *real* or *state of affairs*, let us drop those terms in this connection. "True" and "is the case" are good enough.

Correspondingly, a norm saying that you ought *not* to love your neighbor less than yourself, states of what is not so that it is not so. The Aristotelian definition of falsity applies, and so does the "is the case" formula. It is not the case that you ought to love him less than yourself.

The Aristotelian and other classical truth formulas lead us to assert that at least some norms are true, provided *it is the case* that we ought to act as the norms "tell us." Whether it is the case can hardly be decided by inspection of classical formulas of truth.

Among the kinds of doctrines traditionally used to support the claim that it may be the case and may be true, that something ought to be, one main kind is outstanding because of its long and distinguished history: the doctrines of ideas in some more or less Platonic versions. When they are applied to pure mathematics and logic, we get the doctrines of mathematical objects such as (nonphysical) circles or relations, classes, etc., as entities distinct from the relata and the class members taken separately.

Applied to norms, the doctrines of ideas may assert the existence of ought-relations or "*ideale Forderungen*," not further reducible. Among sociologists, Georg Simmel takes this view.⁴

The phrases *world of value*, *world of duties*, *world of norms* suggest Platonic objects in a normative heaven, and belief in such objects requires an imagination more religious than scientific. The belief in the possibility of normative knowledge does not require this imagination. It is enough, for example, to believe in the possibility of a kind of insight that Husserl has described in his account of ideal, apodictic laws. He refers to the principle of identity and analogous first principles that he believes can be *seen* to be valid by a confrontation *with what is the case*, with the “*Sachverhalt selbst*.” I cannot say that I find Husserl at all convincing, but it seems to me not unreasonable to suppose that there might be instances of pure intuitions of the phenomenological kind.⁵

If there were such intuitions, they would establish normative knowledge. In Husserl’s “meeting” with what is the case, there is no schism between a physical or perceived object and a mind, but an illuminating insight in which it is seen *that* something is the case. It is not the *something* that is illuminated but the *that*.

According to Platonism, the sentence “It is the case that the center of a circle halves all its diameters” may be as true or false as a statement about an ideal circle. According to Husserlian doctrines, it would rather be the logical relations between the definition of a circle and that which is asserted by the sentence that can be intuited. There is, strictly speaking, no need for ideal *circles* according to such doctrines. The ideal state of affairs does not require an object—a circle, or something else—that exhibits the state. The position that some norms possibly are true may thus be given a Husserlian color. “It is the case that you ought to realize yourself” might be a true or false statement about an ideal state of affairs of a normative kind.

Among the contemporary advocates of Platonic varieties of objectivism, Nicolai Hartmann might be mentioned. A couple of quotations will exhibit his way of thinking:

Ethik kann tatsächlich lehren, was sittlich gut ist, wie Geometrie lehren kann, was geometrisch wahr ist. Aber sie kann dem sittlichen Bewusstsein nichts aufdrängen, sondern es nur auf seine eigenen Inhalte und Prinzipien hinlenken. Sie kann nur aus ihm heraufholen, was in ihm enthalten ist. Auch hierin gleicht sie der reinen Mathematik. Der Unterschied ist nur, dass die Prinzipien und Inhalte, die sie ins Bewusstsein hebt, Gebote, Normen, Werte sind. Dem Inhalt nach also ist sie normativ, nicht aber der Methode oder der

Do We Know That Basic Norms Cannot Be True or False?

Art der “Lehre” nach. Denn die Apriorität der Einsicht und die Didaktik der Hinführung auf sie ist die gleiche hier wie dort. . . . Die ganze Verantwortung für Rechtmässigkeit und Objektivität des Wertungsmaßstabes fällt der eigentlich apriorischen Wertschau, d.h. letztlich dem Wertgefühl selbst zu.

(Hartmann 1949: 29, 127)

Das reale Sein also kann wohl Wertvolles enthalten, aber es kann kein Sollen enthalten. Es kann auch das Hintendieren als solches nicht aufnehmen, wenn nicht eines seiner eigenen Gebilde sich als tendenzfähig d.h. als aufnahmefähig für das Sollen erweist. Das Subjekt ist das Tendenzfähige—und so weit wir wissen können, das einzige Tendenzfähige—der realen Welt. Es allein kann das Sollen ins Sein ‘setzen’.

So Kommt es, dass das Sollen, obgleich es nicht im Subjekt wurzelt, ihm vielmehr als gestellte Anforderung gegenübertritt, dennoch als aktuelle Tendenz im realen Sein nur am Subjekt ansetzen und nur von ihm aus von Reales determinieren kann.

(Ibid., p. 182)

The chief difficulty in refuting a priori the contemporary Platonic or objectivistic views of values and norms lies in the claim that those views affirm the *existence* of something. In matters of ghosts, golden mountains, talking stones, and many other entities defined without internal contradictions, refutations are based on experience or, more generally, on a posteriori considerations of some sort. The refutations may be of crushing weight, making belief in the existence of the entities practically impossible, but they are not a priori refutations. “Think away” your experience until now, or imagine you have had other experiences, for example, those described by Husserl, and in other observational journals, and then your refutation would no longer hold. One may be convinced never to face such observational journals, but it seems difficult to find valid a priori justifications for this conviction.

If a Norm Is True, Is It Then Also a Description of Something?

Affirming the thesis that for all we know *it may be the case* that something ought to be, do we not also assert that, for all we know, normative propositions may be a subclass of descriptive sentences?

If one takes the view that all sentences of the kind “It is the case that A”

are descriptive and “*B* ought to be” is normative only insofar as it is *not* synonymous with “It is the case that *B* ought to be,” then we may answer affirmatively. Such a conclusion, however, would not alter the important conclusion that those sentences of the kind “*B* ought to be” that are synonymous with “It is the case that *B* ought to be” may be true or false. The proposed terminology would lead us to subsume an important class of ought-sentences under the concept of descriptive sentences—and why not?

Because of the importance of concepts of “norm” in debates on value nihilism, it may be worthwhile to discuss Harald Ofstad’s attempt to give a descriptive definition of “pure norm” adapted to the use it has received in the writings of the Uppsala philosophers.

In his article already referred to on Scandinavian philosophy, Ofstad defines “pure norm” in such a way that it excludes any norm that *may* be expressed by a declarative (descriptive) sentence:

A formulation given by a person is said to express a pure norm [for this person] if and only if the following two conditions are fulfilled:

1. The formulation must be synonymous for its giver with an imperative formulation, or with a formulation that says or denies that something ought to be done, or shall be done, or must be done, or that something has value or is good, or is bad, or is better than something else or the best of something.
2. The formulation must not be synonymous for its giver with a descriptive (declarative) sentence.

(Ofstad 1951: 46)

The terms *declarative* and *descriptive* admit different interpretations of importance for our present discussion. If *declarative* is defined as is customary in grammar, sentences such as “It is your duty to defend your fatherland” and “You ought to abstain from killing any human being” are declarative. Thus, all sentences fulfilling the first condition might turn out to violate the second condition with the exception of the imperatives.

If, on the other hand, *declarative* and *descriptive* are taken from terminological trends in value theory, the terms might as well be introduced by inserting a series of negations in (1). The formulations must not be synonymous with a formulation that neither says nor denies that something ought to be done, or that something shall be done, etc. Unhappily, there are no

suitable definitions of “descriptive” except in contrast to “normative” (or imperative).

It should be unnecessary to add that the term *pure norm* thus introduced is only precise enough for very modest purposes of exposition. The attempts to introduce more precise and at the same time fruitful concepts of “pure norm” or “genuine value judgment” have been, so far as I can judge, rather unsuccessful.

Now, how is “It is the case that *B* ought to be” to be classified? Empirical studies show that for many people in many situations the sentence is synonymous or near-synonymous with “*B* ought to be,” expressing forcefully the intended objective validity of the norm. Using Ofstad’s descriptive definition, we would unhesitatingly say that the sentence fulfills the first condition, but how should we tackle the question of whether it is synonymous with a declarative sentence? In the absence of any suitable definition of *declarative*, we might say that the first part of the sentence *sounds* declarative and the second does not.

If a declarative sentence is defined as a sentence expressing that something is the case, the sentence “It is the case that *B* ought to be” is declarative. For those who use that sentence synonymously with “*B* ought to be,” this latter sentence will also be declarative. For people who use such a sentence as indicated by Charles L. Stevenson and others, it would not be declarative.

How Strongly Should Normative Insights Motivate Action?

One of Alf Ross’s main conclusions concerning propositions of value is that they cannot be true or false and that if they could, they would not have a normative function other than that which declarative sentences sometimes do have. Even if there were objective values, says Ross,

[T]he *apprehension* of value would not be “practical” or “normative” in any other sense than all cognition is. For any cognition can be called “practical” or “normative” in the sense that on the assumption of a given aim of aspiration the insight into a certain theoretical state of affairs has a normative effect on behaviour. Thus, for instance, the theoretical insight that water boils at 100° C. will determine the behaviour of the person who wishes to make the water boil. The theoretical insight may be transformed into a hypothetical norm (in the present case: if you wish to bring water to the boil, you must heat it to

100° C). It may also be expressed thus: *under suitable circumstances all theoretical insight possesses technico-normative significance.*

And the apprehension of value would have no other normative significance. The objective values, to the person not interested at the outset, would practically be a matter of complete indifference. How do these values concern my practical attitude? I may for instance accept the theoretical assertion that lying has the quality of “odiousness” and at the same time without any sort of inconsistency lie on a large scale.

(Ross 1945)

It seems here that Ross works with a concept of normative such that a sentence “Lying is odious” would have a normative function and express a true norm only if insight into its truth would prevent a person from lying, or if it agitates the speaker or listener. About a preacher’s sermon it may, however, in all sincerity be asserted that it was true what he said, but it was boring and left the listeners indifferent. We may also sometimes say, “I know what I now *ought* to do, but I do not *want* to do it.” This, and similar utterances of occasional practical indifference toward what is sincerely believed to be true, cannot easily be taken as conclusive argument against the beliefs. Value objectivists stress the intense prescriptive character (“*Forderungs*-character”) associated with genuine acts of value cognition, but not to the extent that the subject is by necessity permanently and strongly motivated to satisfy the demands associated with the cognitions.⁶ Thus, I do not think that Ross’s argument hits the mark. Knowledge of values could be of great importance in practice even if it did not invariably elicit a behavior in accordance with the insight.

A Priorism Incompatible with Empiricism

In light of the foregoing, my tentative position will be that *for all we know* some norms may be true or false and that consequently normative knowledge may in principle be obtainable, but perhaps never obtained.

Why should one bother with the possibility of such knowledge if one happens to be more or less convinced that there is none?

In my own case I bother with this possibility because I am not convinced that human beings might not have had, or might not in the future acquire, normative knowledge. They will perhaps be able to verify or falsify

a norm, or at least confirm or disconfirm it to a degree of practical importance. I am neither certain that there are normative truths to be verified or confirmed nor sure that there are not.

The climate in Anglo-American and Scandinavian analytical philosophy seems to have been favorable to a priori arguments against the objectivity or truth of norms or values. Those, however, who are inclined toward empirical trends in philosophy cannot but view with suspicion the dominance of a priorism, and this suspicion will concern counterarguments as strongly as pro-arguments. It is the particular job of empiricism to leave questions open if no decisive arguments are at hand.

Ross seems to view his inquiry into the nature of value as a crusade against a priorism. Of what kind, then, are his own arguments? They derive from neither mathematics nor (formal) logic. He calls his method logical analysis, but from which kinds of inquiry research does this method get its authority? It seems to me that in combating a priorism in one field, he introduces it in another. He does not specify any empirical research that might settle questions a posteriori.

Must Normative Objectivism Lead to Fanaticism?

The following discussion is not intended to be a continuation of the argument. It states a causal hypothesis concerning conditions that have undermined objectivism. It has been felt that dogmatism and fanaticism in religion and morals, and absolutism and totalitarianism in politics, have to a high degree been supported by the belief that *I* am or *my* part is right, and right in an absolute sense, as a fact, and beyond doubt. Objectivism may foster inhuman attitudes between human beings.

The belief in the actuality of insight, knowledge, or true intuition in morals, religious normative dogmas, and ideological superstructures has, according to the Swedish and Danish value nihilists (Hägerström, Phalén, Alf Ross, to mention some whose works are in part available in world languages), contributed immensely to the mental and physical violence so prominent in the history of European countries in the last centuries (Lundstedt 1925; Ross 1953: 359).

I venture to suggest that the idea of normative knowledge would appear less repulsive if it could be combined with another idea that made its

use in support of religious, moral, and political fanaticism unlikely or impossible. This idea is that of difficulties of verification as an obstacle to an easy switch from truth to knowledge, from possibility to actuality.

Let us take the Golden Rule as an example. The belief that it either is true that you ought not to do against others what you do not wish others to do against you, or that it is false, and the belief that it is true, do not together make the Golden Rule a piece of knowledge. From the truth that Fermat's theorem either is true or is false, plus a belief that it is true, it does not follow that the theorem is a piece of knowledge. Perhaps it will never be known. In those cases in which verification is difficult or practically impossible, we are not entitled to proceed from the knowledge that p or non- p is true to the knowledge that p is true or that non- p is true.

Even in cases in which verification is not too difficult, we do not believe dogmatically and firmly in all our physical and mathematical beliefs as a consequence of our belief in an objective standard of mathematical and physical knowledge. We conceive that there may be a gap, wide or narrow, between our own beliefs and ultimate knowledge.

Applied to norms, this suggests that the road from knowledge that you are right or I am right to the knowledge that I am right might be as difficult or even more difficult to traverse than the corresponding one related to nonnormative knowledge. There may be practically unattainable requirements of ethical status, power of meditation, depth of understanding, integration of personality, freedom from prejudice, intensity of action and engagement, serene disinterestedness.

When the value nihilists suggest aversion to absolutism and dogmatism as a source of negative attitude toward value objectivists, an "unscholarly" motive may be said to be imputed to the former. Ross (1953: 172) suggests that such a motive operates in the camp of value objectivists: "What renders difficult the clarification of the problems to be discussed here is not only their inherent difficulty but also the unscholarly motives that, rising from the depths of the soul, make so many cling to a spiritualistic metaphysic and the edifying belief in a moral spiritual order of the world. Hence what we require to attain clarity is not only the intellectual ability to master onerous tasks, but also a certain quality of character: a consistent scientific purity, liberation from every craving for a metaphysical belief which at bottom is rooted in impotence and fear."

As regards the “belief in a moral spiritual order of the world,” it is important to note that only a subclass of such beliefs are beliefs in a moral spiritual order in the extended world. The ontology of Hägerström, and perhaps also that of Ross, is one according to which what is the case must be the case in a spatio-temporal world.⁷ The more refined value objectivists do not presuppose a narrow concept of what is the case and are therefore more difficult to argue against. What is the case may not always be the case somewhere. It is likely that an argumentation purported to be thoroughly “scholarly” (and therefore in the spirit of research) would have a more agnostic or sceptical conclusion than that of strong negations (it is *not* so that there is a moral order, it is *not* so that any norms are true, etc.).

Disagreement About Norms and How to Verify Norms Suggests That Verification Is Highly Problematic

There is not sufficient ground for rejecting the possibility of norms being true, but sufficient ground why we should reject the assertion that somebody actually at the moment possesses normative knowledge.

The main reason is, I think, the persistent disagreement among presumably normal, competent people who make an honest effort to understand one another’s ethical and other normative positions.

The disagreement seems to be less prominent in relation to fundamental norms than in relation to derived ones. It should also be noted that in political and other ideological structures, violent disagreement about what actually happens in the world plays a dominant part. Nevertheless, there is, in our time, sufficient disagreement concerning norms to reject them as expressions of knowledge.

A similar negative conclusion is warranted in relation to the many proposed ways of verifying norms, whether intuitional or otherwise. For expositions showing the difficulties of verifying value qualities (“tertiary qualities”) in a way similar to secondary qualities, the reader is referred to Ross’s article (1945).⁸ At present, there seems to be no way of verifying or confirming a basic norm that can compare with the methods of the sciences, even if we include such shaky fields as parapsychology.

On the other hand, basic presuppositions of the established sciences are in a position similar to that of basic norms. No matter how chaotic the

disagreement concerning ultimate foundations, though, many derived propositions and rules command near-universal adherence. If q is a consequence of p , and q is strongly confirmed, this cannot but make us trust p at least tentatively, even if the way of confirming q itself rests on the supposition of p being true. This may in part explain any lack of verification, and established knowledge of basic nonnormative assumptions is not taken as a sufficient reason for general scepticism.

A Planet with Hume's Argument Inverted

In every system of mortality which I have hitherto met with, I have always remarked that the author proceeds for some time in the ordinary way of reasoning, and establishes the being of God, or makes observations concerning human affairs; when of a sudden I am surprised to find, that instead of the usual copulations of propositions, *is*, and *is not*, I meet with no proposition that is not connected with an *ought*, or an *ought not*. This change is imperceptible; but is, however, of the last consequence. For as this *ought*, or *ought not*, expresses some new relation or affirmation, it is necessary that it could be observed and explained; and at the same time that a reason could be given for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it.

(Hume 1951: 469)

This famous passage introduces Hume's argument against rationalistic conceptions of norms. It presupposes a doctrine about what kind of reasoning is ordinary and why the ordinary should have any authority with us. If we start from a negation of that doctrine, the passage loses its force.

Let us suppose that there is a planet where physical laws are tremendously complicated, practically impenetrable, and further suppose that the morally intensively interested and physically uninterested inhabitants agree completely on all fundamental norms. These might then acquire the status of self-evident axioms and be contested only by cranks. There would be no embarrassing question of verification. Verification would be required only of derived statements and especially of norms derived in part by means of physical hypotheses.

On this planet where Dostoyevsky and others would have perhaps felt more at home, a David Hume might have stood up and warned his fellow philosophers, How do you manage to proceed from safe normative proposi-

tions to the highly doubtful physical ones? Scarcely by ordinary reasons! Physicalizing authors forget, he would say, to tell how they obtain their physics from a set of normative premises.

On this planet there would be physical nihilists proclaiming that physical statements are neither true nor false, and moreover, for a priori reasons, that they cannot possibly be true or false. The world of physical laws is an illusion, they might say, and the world of common sense, that is, that of values, is the only reality. In order to be true, a proposition must agree with reality, but there is no reality to agree with for a statement in the systems of physics.

A Planet with No Argument

Conditions on the imagined planet and on our own have in common a disparity between the extent and intensity of agreement on norms versus non-normative propositions. Now, let us imagine a third planet, where our conditions relative to nonnormative, especially physical, propositions and the conditions of the second planet relative to norms are both realized. Will there be any place for a Hume there? There would presumably be free passage from nonnormative to normative and vice versa, all in complete harmony with “natural reason,” and conditions of verification or confirmation would be agreed upon to the pleasure of both moralists and naturalists.

Basic Norms and Basic Nonnormative Assumptions of Science

It has often been pointed out that the methodology of testing the validity of basic norms lacks a chapter corresponding to that of observation in the methodology of nonnormative statements of science. The comparison is unimportant, because the chapter on observation does not touch on the foundations of science. The status of observation as a source of knowledge cannot itself be justified by observation. The psychology and physiology of sense perception are themselves based partly on observation and cannot be used to justify observation epistemologically without a *circulus in probando*. The status of observation as a source of knowledge seems in science to be postulated or to be taken as intuitively evident. That is, the justification of this status does not seem to be different from the kind of justification

needed in relation to norms, provided we have all found certain norms intuitively evident.

Comparing basic norms with basic nonnormative statements relied upon in science, we see that they have much in common from the point of view of methodology of testing: on the whole, “intuitions” are relied on.

If the basic methodological rules of science are formulated as norms—as they often are—the difficulties of testing will be similar to those in science. The question arises whether a proposition in science arrived at by means of such a rule should be called true or false, if basic norms are denied truth-value.

As regards the principle of induction, it is agreed that it cannot be justified by observation. Max Black and others prefer to speak of the principle as a policy, the policy of expecting certain things to happen rather than their opposites (Black 1954). It is often formulated as a norm. If this norm is negated and a very different one adopted, the content in textbooks of physics or history would have to be radically changed.

All this adds nothing to the reason for believing in the possibility of normative knowledge, but it eliminates certain misconceptions about non-normative knowledge. Nonnormative knowledge also has its problems or even paradoxes. Its basis is obscure.

The foregoing seems to support the contention that the distinction between norms and nonnorms in relation to truth-values is something upheld and justified by belief in what is or is not, that is, in what is the case, rather than by valid a priori reasons. In the strange worlds into which our world may develop, for all we know conditions may favor other beliefs. They are at the mercy of future experience.

In using the term *belief* I do not intend to convey that the change in standpoint toward norms and nonnorms would be irrational. The change may be justified by induction or any other kind of rational argument a posteriori that commands universal assent today.

Consensus omnium should not be taken, it is often said, as a reliable criterion of truth. On the whole, however, what actually is considered to constitute knowledge among researchers in a field is just those beliefs that are universally held by those who are considered to be experts. If there is much disagreement among experts about a proposition, it is not considered (safe) knowledge. Practical variation of conditions of agreement, whatever their

causes, changes our conception of what is real or objective, and the change may be in favor of normative or mixed normative–descriptive models of reality, away from the physical or other purely nonnormative models favored today among scientists.

A Posteriori Questions Leading Us to Empirical Research

Our conclusion from the foregoing is that arguments functioning in the debates concerning norms and truth-values as if they were a priori arguments, in part are not a priori, in part are a priori, but not decisive.

It is not the aim of this article to enlarge upon the a posteriori arguments. I should like, however, to emphasize that in many a posteriori considerations of general and abstract kinds, empirical research has been fruitful. It is methodologically sound to look for possibilities of such research relating to norms.

A task for empirical research of a nonsemantical kind is, just to take an example, to find out how scientists and others actually justify their assertions (whether normative or not) when confronted with repeated, persistent questions of *why* and *how*. Preliminary experiments suggest that the chains of arguments do not tend, in the long run, to end up with observation sentences (Naess 1937–38: 384). It seems that methods of verification by non-philosophers generally comprise both norms and descriptions as links in the argumentation chains. This has some bearing on the contention that there are no methods of verification of pure norms. There is no indication that the norms occurring in the links are all instrumental or otherwise different from basic or pure norms.

Another task of empirical research it is to study fluctuations in the conceptions of reality, especially the fluctuations in regard to the prestige of a space-time manifold as typical of what is real. Such studies would be relevant for our estimation of the sources of our intuitive certainty that it cannot be the case that something ought to be. If what is the case is always something in space and time, as, for example, Hägerström seems to presuppose, it will never be the case that something ought to be. The strong conviction that value nihilism is true may partly stem from belief in a kind of physicalist reality.

This does no more than hint at the kinds of a posteriori arguments that

lend themselves to empirical research with more or less established methods, or that ought to be studied in order to look for possibilities of empirical avenues of attack. There seems to be enough to do in this field for generations of researchers who are interested in philosophical reflections with empirical bearing.

Ultimate *Epoché*

Will empirical research give decisive results? Or, more generally, can a posteriori arguments be decisive? It is difficult to see how any set of arguments whatsoever can be decisive without its framers' already assuming rules of inference and basic descriptive assumptions. The "choice" at this initial stage of any argumentation will largely determine the force of empirical findings.

Thus, the above reasoning results in rejecting the decisive force of both a priori and a posteriori argumentation in answering the question of truth-value of basic norms. I cannot see any way leading to a rational decision. A suspension of judgment, an *epoché*, seems appropriate.

Gestalt Thinking and Buddhism

Impermanence

In the oldest forms of Buddhism, monks were reluctant to answer metaphysical questions. If answers were offered, they were expressed undogmatically: take it or leave it. Even if true, a philosophical opinion might be of little help, or even a hindrance on the Eightfold Path.

Permanence, even eternal being, is often asserted of substance (Descartes, Spinoza) and of some other types of metaphysical entities beyond or behind “appearance.” Gestalt ontology considers these entities to be *entia rationis*, abstract constructions created (by reason) to facilitate rational analysis.

The concrete structure may have a lower or higher degree of permanence. The structure of an ecosystem may show notable change during a century or practically none at all. It may show a short or long *half-life*, in the sense that this term is used in the theory of radioactivity. Abstract structures are timeless, but reason employs them for a short or long time.

The concrete contents of reality are shifting. Discontinuity and universal impermanence characterize the world of gestalts,¹ perhaps not quite in the sense of Buddhism, but in a closely related sense.

Anatmavada and Self-Realization

The “doctrine of no (permanent) Self” is essential to both Buddhism and gestalt thinking.

This article was written in 1985. It is being published here for the first time.

In my personal outline of a deep ecological philosophy (Ecosophy T), “Self-realization!” is the logically (derivationally) supreme norm, but it is not an eternal or permanent ‘Self’ that is postulated. When the formulation is made more precise, it is seen that the Self in question is a symbol of identification with an absolute maximum range of beings. Selves are frequently recurring entities, or “knots,” in the structure of contents, but they do not have the concreteness of contents! Ego, self, and Self are *entia rationis*.² The same applies to a term such as *self-realization*. This status as instruments for thinking, however, does not exclude such terms from appearing in important statements. “Only through one’s self-realization one can attain nirvana . . .,” says Masao Abe in his article (1985: 31) concerning Dōgen’s term *buddha nature* (*buddhata*).

Everything May Become Buddha

“Grass, tree, nations and lands, all without exception attain Buddhahood.” This is taken to be a motto in the Japanese Tendai tradition (Nara 1985: 1). Tentatively, I take “all without exception” to refer to gestalts, not to fragments or relata in abstract structures. Thus, it is not asserted that a tree defined solely by its primary or “objective” qualities may attain Buddhahood. Rather, I assert that attainment of Buddhahood is only permissible for gestalts, such as those that connect the tree with all qualities and attain semipermanence through recurring traits.

There are, of course, a variety of interpretations of “becoming the Buddha,” but some are closely related to the concepts of Self-realization through identification. The Buddhist compassion extended to all beings implies “seeing oneself in all things,” a process of identification. Without this, things appear foreign, *devoid of life*, and impossible as objects of compassion. If I have understood Abe correctly, Dōgen’s concern for elimination of the process of generation and extinction is central. The identification of human beings with animals, plants, and other natural objects rests on a common basic cosmic characteristic: generation and extinction.

There is a question of how wide a range of beings may be said meaningfully to realize themselves. Animals, yes; plants, yes; but including a wider range of things further dilutes the very concept of realization and

Self. There is a limit here, but it is not definite, and the options regarding how to trace it are many.

The similarity to certain forms of *māhāyana* consists primarily in the tendency to widen the range of “becoming Buddha” or “realize the Self” beyond what common sense in our culture seems able to digest. The meaningfulness of everything becoming Buddha is in part dependent on the disappearance in (certain forms of) *māhāyana* of *distinct* things. This leads us to the difficult problem of how to interpret the Buddhist *anatmavada*, the negation of the existence of selves.

Selves as Processes

Personal pronouns and all other forms of language referring to individuals and groups of individuals are used freely and in a standard way in fundamental Buddhist texts. Consider the following examples:

“Monks, do you not speak that which is known by yourselves, seen by yourselves, found by yourselves?”

“Yes, sir!”

“Good, monks! You, monks, have been instructed by me through this timeless doctrine which can be realized and verified, leads to the goal, and can be understood individually by the intelligent.”

(*Majjhima Nikaya*, I, 265)

Engineers lead water,
fletchers make arrows,
carpenters form the wood,
wise men master themselves.

(*Dhammapada*, verse 80)

In the sentence “wise men master themselves” the word *atta* is used (Sanskrit *ātman*). There is, in this passage and in others, no hesitation in proclaiming that wise men (*pandita*) have selves. The selves are tamed or mastered (*damayanti*), but not destroyed.

The famous sentences in the *Diamond Sutra* must, as I interpret the text, be understood in a way that does not make the use of personal pronouns and terms such as *self* questionable or even illegitimate. The individual selves are processes or aspects of processes, always changing, but always

showing an important, limited continuity and permanence. The words of *Samyutta Nikaya*, I, 135, are instructive:

Why do you then harp on the word “person”? Mara, you are starting from wrong premises. This is nothing but a lot of processes; no “person” is found here. For just as the word “carriage” is used when the parts are combined, so the word “person” is commonly used when the factors are present.

One may, as in this translation (which is Rune Johansson’s),³ render the word *satta* with “person,” but a more general term may also be used. What appears to be said is that no entities exist that do not have the character of processes.

To “realize oneself,” as I use the phrase, corresponds to some degree to the Buddhist expression “to follow the path.” Each must follow his or her own path, because of different experiences (see the quotation from *Majjhima Nikaya*), but the different paths, if followed far enough, lead to states that have something in common.

The ultimate goal in Buddhism is indicated by the term *nirvāna*. However interpreted, *nirvāna* cannot be understood in terms of Hindu metaphysics. The idea of a universal, absolute *Ātman* is foreign to Buddhism. As I use the expression “realizing the great Self,” it does not correspond to a Hindu idea of realizing the absolute *Ātman*. If I should choose a Sanskrit phrase for *self-realization* I might select “realizing *svamārga*,” “realizing one’s own way.” The “great Self” corresponds to the maximum deepening and extending of the *sva*⁴ through deepening and extending the process of identification. In any case, the great Self is an *entitia rationis*, not a concrete content or the set of all concrete contents—but it is still unclear if such a concept can even be defined without paradoxes.

Once the status of egos and autonomous selves is downplayed, there is little left of the foundation for making sharp distinctions between anything. The *warning* not to take individuality too seriously or literally is forcefully expressed in the *Diamond Sutra*:

Subhuti, what do you think? Let no one say the Tathagata cherishes the idea: I must liberate all living beings. Allow no such thought, Subhuti. Wherefore? Because in reality there are no living beings to be liberated by the Tathagata. If there were living beings for the Tathagata to liberate, he would partake in the idea of selfhood, personality entity, and separate individuality.

The special wording of this passage should also not be taken literally. The idea of liberation has validity, but one must not absolutize the distinctions and believe in substantial existence.⁵

Transcending Subject-Object Dualism

The belief and acceptance that all whole beings can attain Buddhahood depend upon the rejection of subject-object dualism. That is, one must abandon the sentiment that there is always and always must be an ego involved in experience. Appeal to spontaneity, perhaps especially spontaneous experience in nature, is favorable to a detached view of subject-object relations. The nondualism in Buddhism is sometimes expressed verbally by saying that all beings are one, or that each being is one with all other beings. Such a formula must not be taken in the counterintuitive sense that, for example, I cannot be cold and hungry and somebody else warm and satisfied. The formula does not imply rejection of personal pronouns or any psychology of the ego and self.

It is an interesting problem to formulate clearly the views that have rejection of subject-object dualism as a common characteristic. Whatever way we formulate the nondualism, adherents of deep ecology tend to feel sympathy with views such as the following, expressed by Yasuaki Nara:

[I]n Dōgen, through the negation of the egocentric self, whole being, including man, animal, mountains, rivers, grasses, trees etc., is one with him, making both nature and himself encompassed within the world of the Buddha.

(Nara 1985: 2)

Referring to a poem by the poet So-to-ba “in which the sound of the mountain river revealed reality and the poet had *satori* in listening to it,” Dōgen emphasizes the oneness of So-to-ba and the sound of the river by asking whether it was So-to-ba who had *satori* or the river (ibid., p. 4).

As I see it, a happening refers to a whole constellation or gestalt of relations. “Satori!” might well be an expression of a kind of happening. In that case, it is not evident that one should be able to sort out a subject “having” satori, or an object eliciting satori and revealing reality to the subject. The satori as a content is one, and only an analysis of abstract structure leads to definite conceptions of parts of the whole.

The *words* of Buddhaghosa can be used in proclaiming the reality of gestalts rather than subjects and objects:

For suffering is but no sufferer,
not the doer but certainly the deed is found
peace is but not the appeased one,
the way is but the walker is not found.
(*Visuddhimagga*, XVI, 90)

The term *suffering* (*dukkham*) may be a good name for a class of gestalts. Each member of the class has a structure comprising subject, object, and a medium. The term *sufferer* (*dukkhita*) suggests a narrower connotation, pointing merely to a subject who suffers. Similar reflections may be made concerning the other pairs of opposites in the quoted text.

The indefiniteness and plurality of conceptual analysis are clearly indicated in what Yasuaki Nara says about another poem, one by Matsuo Basho:

Old pond
A frog jumps in
The sound of water

“Here Basho and surroundings are interfused; Basho, the frog, and the pond are one world and the one who jumps into the water may be a frog or Basho himself; the sound is of the water or of the frog or even of Basho” (Nara 1985: 5).

The poem is from the point of view of gestalt thinking a high-level expression of a concrete content. Conceptual analysis may split it up, but it has gestalt status, and the splitting will be more or less arbitrary. This applies even to the subject-object distinction. It may or may not apply as a significant abstract structure attributable to the gestalt.

Western historians of world literature tend to create conceptual analyses that stress the *internal* life of the mind. A Zen Buddhist poem “about” the branches of a tree might in this tradition be explained as follows: The poem tells about the sadness expressed by these branches, but in reality the poem expresses the sadness of the poet. The poetical style requires a projection of personal states of consciousness into objects of the external world. This form of analysis makes Zen poetry and ontology into a subclass of Western poetry and ontology. Yasuaki Nara proposes a translation that is

not essentially different and offers the following to the above analysis: “This poem is *not* a mere description of the scene communicating the quiet atmosphere but the expression of the poet himself, absorbed in the quietude” (ibid., p. 5).

Nara resorts, in explaining the poem, to the distinction between the poet and the scene, a distinction similar to that between man and environment in the shallow ecology movement.

What the both-answer can do in these matters is to delay, or hold back, the introduction of the subject-object distinction by admitting a diversity and richness of ontologically homogeneous traits (rather than “properties”) of a constellation. Primary, secondary, and tertiary traits are completely on par. The secondary and tertiary are not in need of a subject, a mind, a consciousness in the form of a container with subjective ponds, frogs, trees, and water inside it. The concept of “things in themselves” is held back because we do not find contradiction between dissimilar utterances about “the same thing.” (“Things with properties” are described in terms of “fields”—comparable to what occurs in physics.)

The both-answer has, of course, a rather limited function; the same holds for the notion of “concrete content” as contrasted with “abstract structure.” As starting points of reflection about “things,” however, they liberate us from certain prejudices.

Things in Themselves and Values in Themselves: “All Things Have Value”

There are some complications worth mentioning at this juncture. One must distinguish subject-object dualism from subject-object distinctions in general. The term *dualism* is used when the distinction is said to be fundamental, absolute, and pervasive. Dualism is accepted in the theory of duplication and in the theory that things in themselves do not have qualities. Everything we experience has such qualities. Rejecting them means establishing duplicate things inside the mind.

The outstanding dualist of Western philosophy is René Descartes. Many of the contemporary efforts to avoid the paradoxes and counterintuitive consequences of dualism are conceived in terms of anti-Cartesianism. It is not sheerly coincidental that Descartes is also the main proponent of

the view that animals are insensitive machines and nature has value only as a resource for human beings. However, I shall not attempt to explore connections between dualism and these historically significant views.

The insistence that there is nothing, no substance, “behind” the concrete contents corresponds to the Buddhist conception of *sarvam tathatvam*, “all is such as it is.” However, the conception of a world of concrete contents and fields rather than things in themselves may seem to undermine our concern for individual beings—animals and plants—and for abstract entities such as species. This need not be so. Spontaneous experience is not sense experience. It is experience of more or less stable things and processes of “the world we live in” (*Lebenswelt* in the terminology of philosophical phenomenology). When we see an orange we see a thing, not a patch of yellow or orange or greenish color. When meeting an animal, we meet in our spontaneous experience something enduring and self-propelled. The essential aspect of the ontology of contents is not a negation of enduring beings, but of the omnipresence of the “we” or “I” and the duplication in external and internal worlds.

These words are meant to introduce my comments to Yasuaki Nara’s interpretation of the Japanese notion *inochi* (life). He thinks it slowly came to refer to the intrinsic value of all beings. “Gradually, the Buddhist precept of *not-killing* has come to be understood not only as not taking life of animals, but also not taking *inochi* of all things. Sometimes it has further been said that *not-killing* is to let *inochi* live” (Nara 1985: 7).

The notion of intrinsic value as some form of life in a broad sense has important consequences. In some countries, the deep ecology movement is closely allied to lifestyles that are, in part, characterized by careful and respectful handling of things more or less in general, not only of sentient beings, not only of living things in the sense of organisms. There is remorse for taking their *inochi*.

The Japanese custom of *kuyo* (memorial service) must be mentioned here.

On a day sometime in Autumn, eel-dealers, restaurant managers and some ordinary people representing the general customers gather together to have a religious service. A small altar is constructed and one or more priests chant Buddhist sutras to the eels who were killed and eaten by us to nourish our

lives. The Japanese do not exactly believe in the existence of a soul of an eel. The implication of the ceremony lies rather in the complex feelings of remorse for taking their lives and *inochi*, of thanks, and of soothing their souls, if any. . . . In the Edo period, the housewife and daughters of each home were supposed to do *kuyo* for the used or broken needles with a sense of regret for their lost *inochi*, thanks, and also with prayers for the enhancement of their sewing talents. Since the Meiji period, the needle-*kuyo* has come to be observed by some temples or Shinto shrines collectively annually on February 18. . . .

Some medical doctors and nurses sometimes join, bringing the needles used for injections. *Kuyo* is also done for old clocks, dolls, chopsticks, spectacles, tea-whisks, etc. To sum up, the traditional view of nature in Japan first of all does not make a clear distinction between man, animals, and things. Though the individuality of each exists, all are felt to be part of the one world of the Buddha, each revealing its value.

(Ibid., pp. 9–10)

This horizontal or antihierarchical way of feeling things is gained by using the notion of concrete contents as a starting point. Or, to be more precise, the kind of philosophy I think comes closest to truth and that I feel at home with supports this kind of horizontality, and the notion of concrete contents facilitates its formulation.

If we think of some of the cruelest parasites, inflicting slow, painful death on their victims, it is difficult to invest them with any sort of positive intrinsic value. That analysis applies even more strongly to chemical and other weapons—but they certainly are “things” and therefore seem to be eligible for *kuyo*.

In short, what about the “problem of evil” in relation to the concept of intrinsic value of all things? Clearly this concept is as vulnerable as any other that tries to attach uniform positive value of some kind to all that is felt to be real (*sattva*). There is a need for clarification of the meaning of the intrinsic value conception, but I cannot go into the matter here.

The *inochi* and *kuyo* phenomena are primarily cultural in a general sense, not philosophical, but they furnish irreplaceable and invaluable raw material for philosophical reflection. In many Western countries, environmental struggle involves direct actions and violent confrontation. The norms of nonviolent group conflict as worked out by Gandhi and others ex-

METAPHYSICS, MORALS, AND GESTALT ONTOLOGY

clude violence not only against the opponents, but also against their machinery and other equipment that, from a direct causal point of view, destroy life and life conditions on a vast scale. The norms against so-called sabotage involving such equipment are based on deep attitudes that express themselves in cultural phenomena such as *inochi* and *kuyo*.⁶

Kierkegaard and the Values of Education

Kierkegaard's *Concluding Unscientific Postscript* can be used in a more or less futile effort to construct a total philosophy of Kierkegaard, or it can be taken at face value as an independent writing covering a great variety of subjects. The latter use is the more fruitful for those concerned with the crisis of higher educational institutions, such as universities, in affluent societies. If we take it as a completely independent work by a seeker and humorist, Johannes Climacus, we may interpret its key terms (*the ethical, inwardness, passion, involvement, subjectivity*, and so on) solely in their context within one particular text. It turns out that its importance, thus considered, is much broader and its application much wider than if key terms are interpreted in the light of what, for example, is said in *Either-Or*.

There are in the *Postscript* at least a dozen subjects with a bearing on the educational crisis.

Against Pretentious and Premature Systems

The delightful anti-Hegelian sayings of Johannes Climacus are today applicable to every pretentious explicit or implicit systematization covering controversial matters. They hit the belief in any scientific worldview based on (normative, decision-making) observational methodology. Such views are systems, and the question "How do they start?" is relevant. How does the system begin with the immediate? That is to say, does it begin with it immediately? Textbooks used in schools and universities propagate special

This article was reprinted with permission from *The Journal of Value Inquiry* (Dordrecht, Netherlands: Kluwer Academic Publishers) 12 (1968): 196–200.

points of view in an authoritarian way. The young are asked to kneel down before nationalist, theological, historical, "scientific" dogmas and myths. Their own sources of myth-building and belief are ignored or made fun of.

The system-building most dangerous to the inner, individual sources of belief, including valuation, is today the interpretations provided by popularizers of science and by "experts" in administration. We need a neo-Duhemian stress on the difference between more or less certain and indubitable results of scientific or technical research, on the one hand, and interpretations and interpolations, on the other. The latter can exhibit vast differences in direction, but owing to ideological and other idiosyncrasies of teachers and parents, the young are stuffed with one interpretation, to the accompaniment of a negative inducement to allow their imaginations to play with other possibilities. Consequently, the very sources of creative personal belief are apt to dry up, with resulting loss of individuality and interest in spiritual matters. The vast textbook systematizations foster the illusion of a preexisting world common to all individuals in which they all live, one that is known in all important respects. We need to stress a pluralism of worldviews, of historical interpretations, of views on human existence. The unspoiled young feel that what is already there, preexisting and unchangeable for the individual living now, is only a skeleton of a world, an abstract structure, a set of invariances, without color and individuality. It is up to them to shape and give color to the world of today and tomorrow.

It is the choices of each individual, the process of finding himself, that gradually illuminates that particular world he is living in. Kierkegaard teaches us that there is a source of inner life that, if not clogged, generates values and sets of value priorities, that is, in short, an inwardness; and that truth in the abstract, as mere agreement with external observation, has no place for the individual if not related to that inwardness. In our time we stress the difference between results that can be recorded and stored in a machine, and a result incorporated in the personal worldview of an individual. The aim of the educator cannot be to multiply the former, but to bring about the latter.

Lack of space unfortunately precludes extensive quoting from the *Unscientific Postscript*; I can only invite readers to see for themselves how the critical remarks on Hegel's system and on systems in general are admirably suited to contemporary textbook authoritarianism and intolerance toward pluralism.

Correct Versus Deep Choices

The *Unscientific Postscript* contains a number of unsurpassed maxims stressing the importance of making personal choices. What counts, according to Johannes, is the seriousness, pathos, energy, genuineness, enthusiasm, and depth of choice. A choice may be taken as deeper the more it touches the system of attitudes as a whole, that is, the more radical or fundamental it is. Every deep choice creates a discontinuity; the individual develops into something different from what he was before, and something more self-made, autonomous. Only through such choices can the youngster develop into a strong personality. Only if he is able to “go into himself,” concentrate and listen to more or less immature impulses, and have the courage to follow them, only then can the growth of personality withstand the external pressures of parents and teachers trying directly to influence choice. Kierkegaard stresses this “consolation of personality” through personal choices. The ability to choose is itself a function of success in choosing—not success in the external sense of doing the right thing (socially) or believing the truth (scientifically or theologically), but success in overcoming compulsion from the outside or inside.

In higher education, there are choices to be made: what to learn, how to learn, how much to learn, how to use free time, how to establish genuine personal relations—and which kinds of relations—with fellow students and teachers. In principle, the choices must be made every day: there is no automatic transfer of decisions from day to day. These choices are classifiable as correct or incorrect only at superficial levels. The deeper choices have a purely personal relation, an individual component: is the chooser in truth?

To Hold True Opinions and to “Be in Truth”

Kierkegaard does not belittle the importance of facts and factual knowledge. On the contrary, the inner tension of the Christian believer can only develop if he takes the facts of historical and other sciences seriously, for only then can the paradoxical character of belief make an impact on him. Kierkegaard’s maxim, that truth is subjectivity, has the function of stressing the importance of the relation of the individual to what he believes is

true. The individual can be in truth or be in untruth in relation to propositions that have personal relevance. If the personally relevant factor of objective truth has been contemplated and chosen, the individual is in truth: where there is social pressure, there is untruth. In moments of choice the individual is alone. Through the artistic use of paradoxical terminology Kierkegaard has provided us with a rich store of expressions stressing the personal aspect of knowing.

Applied to institutions of higher education, this means that they serve depersonalization, uniformity, indifference, “other-directedness,” if they limit their concern to teaching truths (which are in any case mostly mere conjectures), neglecting the individual’s own relation to truths. The authority of Kierkegaard is sometimes used to belittle scientific research and objectivity. Seen another way, however, the researcher tries to be intellectually honest and open-minded in his choices, and the dedicated researcher requires his own kind of endurance and faithfulness as he proceeds (like the historians of the Bible) along the infinite “road of approximations.” Research, therefore, is one of the professions admirably adapted to test inwardness and ethical stamina. Actually, many youngsters have a clearer view of the scientific attitude than many teachers. By giving them suitable personally (but not necessarily socially) relevant tasks, we can maintain their respect for unending research (but not necessarily for the results of research).

The Ethical and the Inward

The neglect of *Unscientific Postscript* as a coherent, self-sufficient unit of thinking has negatively affected the interpretation of the term *the ethical* in that work. Researchers have linked this term with specific moral doctrines—for example, those of Assessor Wilhelm in *Either-Or*—or with topics that are centrally important in other writings by Kierkegaard but not in the thinking of Johannes Climacus, the alleged author of *Unscientific Postscript*. In that work, *the ethical* is mainly another term for “the genuine,” “the inward,” and there is no propagation whatsoever of any definite morality, for example, that of duty.

Applied to educational philosophy this means the limitation of moralizing to stressing the duty of the person to choose in all seriousness, and to

follow a decision faithfully, working out all the consequences of his or her choice. The educator can only help the individual with information relevant to the preparation of the choice and the derivation of consequences. Any indoctrination or direct influence, especially as regards norm systems and theological, moral or political propositions, is poison; either it destroys or undermines the growing individual's ability to consolidate a personality, or it supports negativism: the uncritical acceptance of views in opposition to those of authoritarian teachers.

The Illusion of Greatness and the Unimportance of Results

Unscientific Postscript contains a rich variety of maxims stressing that an individual should not concern himself or herself with success, with the external results of choices, efforts, or acts, because they are only indirect at the moment of choice. The only concern is that of being ethical—reaching a high level of inwardness—being in truth. It is clear that to obtain a high score here does not require intellectual ability, social position, or smartness. For the educational philosophy of higher educational institutions, the consequence is to minimize the stress on the external success of the pupils, on competence measured by objective tenability of views and effectiveness in handling “problems.” There are, of course, kinds of training (for example, that of a future surgeon) in which external criteria are all-important, but no institute of learning can, or should, limit itself to such training. In all training, including that of mathematicians, the stress on success can safely be minimized in relation to the importance of the personal relations. For example, rather than “the mathematical,” we can emphasize mathematical contemplation and fantasy in the value of individual mathematical exploration. We have our machines to store results, and to carry out tasks with the sole view of obtaining results.

With the increasing centralization and trend toward uniformity of world culture, and with the accompanying increase in the comparability of results, the attainments and success of the average individual are less and less conspicuous. Young boys or girls are confronted with people who have achieved a level that it is utterly improbable that they themselves can reach. The constantly recurring implicit and sometimes even explicit rating of individual attainments based on external criteria makes it more diffi-

cult than ever for the average youngster to feel important, to feel what Kierkegaard stresses: that he or she is something unique, worthy of development and care. Insofar as education favors inwardness, the rich and intensive inner life, exposure to superior scholastic talent does not endanger it.

Indirect Communication

Nothing essential can be communicated from one individual to another, according to *Concluding Unscientific Postscript*. Insofar as the maxims on inwardness are essential to the welfare of the individual, they cannot be communicated directly. Ordinary, informatory language is direct; it does not elicit or free the inner forces. Therefore, the teaching of Johannes Climacus, if he does teach, cannot be made part of any curriculum. The philosophy of inwardness, if there is any, cannot itself be made the subject of any textbook or any educational indoctrination. The spirit of that philosophy can only manifest itself in the personal relation between teacher and student.

This is not the place to map out specific applications of a philosophy of education based in part on the above interpretation of the maxims of *Unscientific Postscript*. There is, of course, scope for various interpretations of those maxims, and application cannot be immediate but must carefully take account of how each contemporary educational institution is operating.

Of the various objections that might be made by leaders of such institutions, there is at least one that deserves to be mentioned here: it is said that the institutions must adapt the young to the present complex, technological society. In this society it is the external, the smoothly functioning, and the successful that count, not richness, variety, and intensity of inner life.

The answer to this must be that such a smooth society turns things upside down. Such social smoothness is of lower priority than community, and personal togetherness with fellow beings. For in being together, smoothness and external success do not count, and there are no technicalities to adapt to. Further, even the norms of being together have a lower priority than those of the inner life of each individual; that inwardness is the ultimate reference for any norm whatsoever. Thus, the higher educational institutions must make it easier for the young to remain unadapted, or imperfectly adapted. Otherwise, they contribute to the life of the big, impersonal, affluent society, with its external richness and inner poverty.

The Principle of Intensity

If you fill your bathtub half full with water at 40° C and then after a moment's hesitation fill it completely, the temperature does not increase to 80°. Forty plus forty is eighty, but because *temperature is an intensity*, more water of 40° C does not increase the temperature. The rule of addition does not apply. One person in a room is suffering from a toothache of a certain intensity. Then another person enters the room with the same kind of suffering. This does not automatically double the felt intensity of any suffering.

In Hiroshima on August 6, 1945, after 9 A.M. a great number of people and animals suffered intensely. We may safely infer that some of them suffered prolonged pain in the terrible realm of maximum intensity. The same day, thousands of miles away, some other people presumably also experienced extreme suffering. With thousands of millions of people on our planet, there are presumably always people in a state of extreme felt suffering. The larger the population, the greater the “statistical” suffering, or *cases* of extreme suffering. There need not, however, be an increase in *felt* suffering. It is important to emphasize the adjective *felt*, because as criteria of pain and suffering we often rely on “objective” indicators, rather than feelings. I add the term *suffering*, because *pain* is sometimes used only for physical pain. On the other hand, *suffering* is sometimes used without im-

The original version of this paper dates back to the late 1940s; in the early 1990s Naess added the discussion on life quality. A paper by the same title, with much of the same material (but based on an earlier draft that does not include the life quality discussion), appears as “The Principle of Intensity” in *The Journal of Value Inquiry* (Dordrecht, Netherlands: Kluwer Academic Publishers) 33 (1999): 5–9.

plied felt pain, as in the expression “suffering a lack of x ,” vitamin B₁₂, for example.

People in Hiroshima wandered around with eyes intact but with the skin of their faces hanging down in a terrifying way. Some of them seemed to be in a state of confusion rather than a state of excruciating pain. If we look at pictures of 100 people in famine districts, our judgment about relative intensities of suffering tends to confuse the awfulness of what we see with the felt pain. Rescuers with limited supplies are in a difficult position. Who has priority?

Thinking of Hiroshima we might say, “What a stupendous amount of pain!” but strictly speaking, the number of people afflicted is irrelevant when speaking of felt pain. What is pain that is *not* felt? Hiroshima was a catastrophe of staggering dimension, but the dimension is not an intensity. It may *cause* variation of intensities but is in itself irrelevant.

During the Nazi regime more than a hundred thousand people were severely tortured. Some torturers were “scientific,” trying to use only a sufficient dose to get hold of all the information the victim could be *rationally* supposed to possess. Others started with extreme torture immediately and continued indefinitely, trying to cause the most insufferable pain imaginable. If the tortured started to offer information, their suffering tended to increase owing to their terrible guilt feelings. Unfortunately, the situation nearly always was such that no one could rescue the victims even when the exact location of the torture chambers was known.

At a given moment one may ask, What is the status of felt pain on the planet? With so many people in so many precarious situations, the answer is plain: there is always too much felt pain and suffering.

The next question to be answered is, What can be done to reduce felt suffering, given limited power and opportunity to do so? That is, what can be done by individuals and by institutions? What sort of collective action is feasible? This leads immediately to the question of priorities. If person *A* is obviously in extreme pain and *B* is only in moderate pain, and we have equal opportunity significantly to reduce or even eliminate the pain of one and only one of them, philosophical ethics tell us, or at least some of us, to act on behalf of *A*. What about a situation, though, in which person *A* suffers extreme pain; hundreds of other people, group *B*, suffer moderate

pain; and 10,000, group C, suffer pain of slight intensity? Do numbers count?

Here the maxim “Reduce maximally the pain and suffering of a maximum number of people” is relevant, but of little help. Numbers do count, and for good reasons. It affects us more strongly to hear about a catastrophe like that of the *Titanic* in which at least 1,500 people perished than to learn about a little boat capsizing, killing the two people in it. If, as rescuers, we have to choose, we normally view sheer numbers as relevant.

What if the choice is between saving *one* person from extreme suffering and a *thousand* from moderate pain, assuming that the thousand do not interact with one another as people often do on a boat? My answer is that we should try to relieve the person who experiences extreme suffering, but I have to admit to a feeling of absurdity when I increase the numbers and decrease the difference between the intensities of suffering felt. Suppose we are in a region of starvation, and suppose the many suffering moderately could easily move into situations of greater suffering. I feel we should then help the many who suffer moderately, and explain the situation to the one person suffering much more. I expect he would say something like, Yes, I see your dilemma. I am glad you have decided to help the others.

One thing that unavoidably crosses my mind is that we should consider consequences of more remote kinds in addition to the immediate decrease or elimination of pain. If we are able to help a vast number of people by a decision or action, this may have more beneficial and lasting effects, also in terms of expected new pains, than if we are able to eliminate the severe pain of a single person. I expect that the situation is fluid and that decisive help to a group of 1,000 sufferers or potential sufferers could seriously decrease the possibility that many of them, or their children, would reach a high level of suffering in the future. Although it is often most reasonable, in practice, to let the quantity of persons affected influence our intervention strategy—the *principle* of intensity is not diminished.

No norm is isolated in practice. In “real life” any norm is part of a wide field of norms that interact. Norm conflicts are normal. Moreover, the uncertainty of appraisal enters the picture: under what circumstances are we competent to decide whether a person is experiencing such and such a level of intensity of suffering? Furthermore, whether we like it or not, in prac-

tice we generally think about whether a person deserves to be helped. Age is also a factor. For example, the slight but evident suffering of small children may count more than that of their parents. Babies dying of hunger may suffer very little or, according to physicians, be beyond suffering. They tend to be treated because of the anguish of their parents. Furthermore, dignity is also a factor. Many people *suffer* indignities and wish to be relieved of them more than any suffering diagnosed by a physician.

The strong norm to relieve fellow human beings in situations of intense suffering has sometimes resulted in a rescue of someone who seriously and insistently asks to be left alone. A well-known example is that of old Mr. Fukai. After the explosion of the atomic bomb on Hiroshima, only his head appeared above the rubble of his home. He was suffering intensely. A warmhearted person saw him and started to pull him out because fires would otherwise consume him. But Mr. Fukai, as polite that day as he was on all other days, begged not to be removed from his own home. Despite his plea, he was carried away from his burning home. The warmhearted person waded into the nearby river in order to be away from the heat. Mr. Fukai was able to escape from the refuge his rescuers had put him in. He was grabbed again, and he escaped again. He ran in the direction of his burning home, where he presumably died in the fire. Did Mr. Fukai escape a suffering greater than he would have experienced if he had been "rescued"? I would say he probably did. It is difficult for me to see the justification of grabbing Mr. Fukai, even if his behavior might be interpreted as an expression of insanity in a popular sense of that word. An individual should largely be accorded the competence to estimate his or her own suffering, and persistent mental suffering should be judged as important as physical suffering.

An old colleague complained to me that his doctor concentrated on fighting his deadly illness, neglecting the less dangerous, but much more debilitating ones. He did not mind dying, but while he lived, he was interested in the quality of his life. He neglected the main orders of the doctor and died sooner than if he had subjected his will to that of the doctor. This brings us to the question of whether there are important exceptions to the rule that intense suffering should, if possible, be relieved; whether the wish of the sufferer about how to alleviate his own suffering should be respected. Terminally ill patients who find their lives completely meaningless and

who suffer both from this mental condition and from physical pain are, in spite of persistent requests to be given assistance in dying, in many countries denied this assistance. I expect such resistance to disappear gradually, but a feeling of the sacredness, not only of life, but of staying alive, plays a role here.

Finally, consider an example of a situation involving a form of extreme mental suffering that is frequently overlooked by social institutions. When Norway was liberated from the Nazi occupiers in May 1945, I had the opportunity to locate a group of people likely to be in a situation of extreme mental anguish. When the gate of the huge Nazi concentration camp near Oslo was supposed to be opened, parents streamed to the gate to meet their imprisoned sons. Some of the young men, however, did not show up. For the parents, the thought was realistic that their sons had been killed, or even tortured to death, by the Gestapo, but they hoped frantically that their sons were alive somewhere. It was a meager help, but not insignificant, to investigate the cases and offer certain evidence to the parents about what had happened to these young men. They insisted on getting details. They woke up in the middle of the night considering all the dreadful possibilities. It had a devastating influence, and those engaged in jobs had problems; some could not continue with their work. Of the young men who had not been tortured to death, some had died of "exposure," for example, in extremely cold cells; others had managed to use poison pills to avoid imminent torture. It is not surprising that this group of parents could not reckon with help from ordinary social institutions, including the Red Cross, which had much work to do of a more ordinary kind. More was done to prosecute and imprison the quislings, those who directly or indirectly assisted the occupying Nazi power, than to assist the victims.

In short, not enough is done to save people in a state of intense pain and suffering. We forget that there is, in a sense, never a greater reduction in *felt* pain than when an individual is saved from extreme suffering, and that "statistical suffering," the mere numbers, does not always matter. The false *quantification* of felt suffering tends to quell efforts to reach the victims.

In countries where torture is used regularly and ruthlessly, people who fight year after year against those in power daily face the prospect of being tortured themselves. Very little, in my opinion, is done to organize secret

routes out of these countries, so that the victims themselves can get out on short notice—and back in when the situation is more favorable. Such routes played an important role during the Nazi occupation of many European states. Thousands of people were engaged in saving others from continued torture. Governments today, however, take few risks to put outside pressure on dictators in spite of the improbability that the dictators will harm the rich, industrial states. It is an international task to support human rights activists in every way, including direct, nonviolent actions.

There are organizations specializing in helping people who have been tortured to restore them to normal life, but they receive little publicity. This is probably because most people avoid the thought that at every moment of their lives people are being tortured somewhere in the world. Pictures of land mines and their victims helped to secure agreements to stop the use of land mines. There is an understandable reluctance to publish drawings of the physical effects of torture and a reluctance to interview people in psychiatric care who are unable to resume normal life. From insistence on inspecting the possible manufacture of biological weapons, we must proceed to insistence on inspecting the treatment of prisoners.

In general, there is a tendency to neglect “quality of life” in favor of quantity of objects and services, which supposedly secures quality. Suggestibility is a formidable force, and it is easy to increase to some extent the quality of life by noticing every day the great number of *means* available. “See what I *have* to secure happiness and avoid depression! I have everything!” Every *thing*, yes, but we all agree that it is unrealistic to believe that a steady stream of more and new things may or must increase an intensity called quality of life.

At a deeper level, however, there is a tendency to help where we believe we *see* what is most needed. The “needy” are conceived to be those *lacking* something, and they themselves naturally express their wants in those terms. What *is* needed, more than anything else, is to relieve intense and prolonged felt suffering. The reduction in the material standard of living in the richest countries of the world does not help suffering in the poorest if the decrease of consumption in the rich is not combined with an increase in the poorest. What complicates matters, however, is the tendency to discount the suffering of future generations of human and other life-forms.

The increase of consumption of the poorest of this generation may be of a kind that will decrease the quality of life of future generations.

The discussion of the principle of intensity applied to felt suffering has brought us a long way. We face the question "To what extent do policies in the poorest countries focus on felt suffering and to what extent do they focus on acquiring things that symbolize an increase in material standard of living?" To what extent do the rich countries have responsibility for making the poor countries unduly focus on the things that can be added rather than on what does not follow from the law of addition?

Let my closing words be: Let us not forget that feelings are facts, but not like any fact; they are intensities. They do not obey certain rules of addition. There are feelings so terrible that rescue deserves a higher priority. Awareness at some moment that someone is being tortured spoils that moment. It is to be hoped, however, that more people respond with the question "Is there anything I can do?"

We Still Do Not Know That Norms Cannot Be True or False: A Reply to Dag Österberg

Argumentation 1

Premise 1: Norms are not propositions.

Premise 2: All denotata of the predicates “true” and “false” in philosophical literature have been, until now, propositions.

Conclusion: Only propositions can be true or false according to philosophical concepts of truth and of norms.

This conclusion I do not think tenable because whether norms can be true or false depends rather on connotation than on denotation of concepts of truth. Until certain discoveries were made, denotata of “carnivorous” in zoological literature were always animals. It has been fruitful, however, to let the connotation of “carnivorous” be free from references to the distinction between animals and plants. The appearance of plants as denotata did not necessitate redefinitions.

Österberg has interpreted me to mean that contemporary definitions (and therefore connotations?) of truth are such that “true norm” and “true but not a proposition” are contradictory. However, only *some* definitions of truth contain a clause that only propositions can be true, and I see no reason

This article was reprinted with permission from *Theoria: A Swedish Journal of Philosophy* 28 (1962): 205–09. The article by Dag Österberg shows the necessity of clearer presentation of certain argumentations.

automatically to take them as authoritative. There are dozens of definitions or statements closely resembling definitions without such a clause. Thus, Bertrand Russell says: “What an asserted sentence expresses is a *belief*: what makes it true or false is a *fact*, which is in general distinct from the belief” (1948: 111–12) and “My definition of truth is that a belief is true when it corresponds to a fact” (1948: 18).

The conception of an absolute, correct concept of truth is utterly foreign to me. So-called definitions of truth must, to be adequate, have certain relationships to actual use, but occurrence analysis or other scientifically satisfactory techniques of studying actual use cannot yield (by induction or otherwise) just one definite, so-called definition. The definitions are conceptual constructs with complicated and indirect relations to the observational data.

If we have good reasons for believing that a certain norm is true (or false)—using one of the definitions of truth that do not limit truths to propositions—consideration of fruitfulness may lead us to abandon those definitions (or, more general, conceptual constructs) that make it impossible for norms to be true. As stated explicitly in my article “Do we know that basic norms cannot be true or false?” argumentation 1 concerns “the denotata, not connotation of truth and falsity.”

Let us briefly consider another argumentation.

Argumentation 1a

Premise 1: Norms are not propositions.

Premise 2: All definitions of truth in philosophical literature until now have included a stipulation that only propositions can be true or false.

Conclusion: Only propositions can be true or false.

Even this conclusion seems to me unwarranted. One might say “According to every definition in philosophical literature until now, only propositions can be true or false,” but formulations of definitions in philosophy are implementations of certain *tasks*, for example, in relation to explication or analysis of actual use of the terms *true* and *false* in certain texts. Definitions are

considered more or less good, and there are more or less generally accepted rules for when to discard a definition and adopt a new one. In the case of definitions of truth and falsity, the core of the definitions is not a stipulation that only propositions may be true or false, but expressions such as “agreement with reality,” “coherence,” and so on.

Österberg would be right in maintaining that my criticism of the conclusions in argumentations 1 and 1a is commonplace or trivial. If, however, we consider the actual situation, namely that some norms *are*, by some philosophers and many nonphilosophers, claimed to be true or false, the insufficiency of arguments based on definitions or on denotata in philosophical literature should be pointed out. Those who maintain that they know that norms cannot be true or false because of certain definitions, should state their reasons for thinking that those who do *not* deny the possibility of true norms should adopt a definition of truth such that norms cannot be true or false.

Österberg agrees that it can be true that we ought to do X if it can be the case that we ought to do X, but he adds that “it is valueless to us until we know what is meant by ‘something being the case’.” “*Criteria* must be given,” says Österberg, and he thinks it a “sin of omission” that I do not offer criteria (Österberg 1962).

Now, formulations of general criteria of something being the case are scarcely helpful, perhaps because “to be the case” is something very fundamental and very simple. Phenomenologists have offered masterly and vivid accounts of what is experienced when judging something to be the case. Especially the descriptions of self-evidence, of insight that such and such evidently must be the case, are impressive pieces of literature. There is, however, something unsatisfactory in the phenomenological accounts if addressed toward people who are uncertain about which criteria of “being the case” are good criteria. Either one’s intuitions fit the descriptions or one has no reason to accept them. Even, however, if it may be unfruitful to search for *general* criteria that something is the case, particular criteria might be useful. I consider it to be the case that $7 + 5$ equals 12, that only extended things can be green, that dynamite is explosive, and that one ought to act with due regard to consequences. I can state special reasons for considering each to be the case.

As to norms, I have the suspicion—backed up by psychological and

sociological theories—that corresponding special reasons are not so strong or so good as in certain cases of sensory experience, or of logic or mathematics. However, I have not found, and cannot formulate, any convincing general and direct criticism a priori of norms being true or false. Sometimes what norms *assert* is to me, and to many others, as compelling in their evidence and just as independent in their validity from my likes and dislikes as mathematical or any other propositions.

Is it an empirical question whether something is the case or not? My answer has been yes, but it seems to me now that the answer rests on an unduly general concept of ‘empirical’, taking it roughly to be equivalent to ‘ontological’. One may ask whether it is the case that an absolute proof of consistency is not available for the whole of arithmetic. I would say that the question is—as formulated—an ontological question, but not empirical. Maybe *factual question* is a better term; if something is the case or not the case, it is either a fact or not a fact. It is a factual question in contrast to one, for example, of terminological convenience or convention.

As to whether something *can* be the case, I agree with Österberg that this is a different question (from the point of view of connotation) from that of whether something *is* the case. Insofar as definitions of *true* and *norm* and related terms leave open the question of whether norms can be true, I do not see how it can be concluded that norms *cannot* be true. If definitions—or more general, conceptual structures—agreed upon by convention by very distinguished authors do not rule out a possibility, I cannot see that there remains anything else to do than to show that something *in fact* does not exist, meaning that there actually are not true (or false) norms.

Thus, I am not convinced that there is a logical flaw where Österberg sees one.

Österberg touches on a very important point in the following words:

It seems that value-objectivism can be intelligibly defended within idealistic philosophy. But what is the significance of this fact to a philosopher belonging to an analytical, empirical trend? Obviously he cannot adopt the conclusion that “norms can be true or false” if the premises are incompatible with the frame of reference within which he is thinking. Statements on this issue simply do not mean the same to a Simmel and a Carnap, even if they are given the same wording. So the whole argument of Professor Naess can be reduced

to the following: If our views on life were different, so would be our philosophical positions. If I had been Edmund Husserl, I would have been a phenomenologist. This is without a doubt true, but unfortunately with necessity.

(Österberg 1962)

I doubt very much that Österberg would find it adequate to say “Norms cannot be true or false because I think within a frame of reference such that norms cannot be true or false.” As soon as one can formulate a frame of reference, one does not think completely inside it, and one should be able to state whether it is considered to be expressing postulates, self-evident truths, and so on.

There are certain *fundamental* positions found among idealists or Platonists (Georg Simmel, Nicolai Hartmann, Edmund Husserl, Alonzo Church) such that, if they are believed in, one is likely to believe not only in the possibility but even in the actuality of true norms. Just because they are fundamental, it is hard to find a frame of reference that goes still deeper and from which the belief can be *shown* to be a false belief. At least I have not found an empirical or analytical position satisfying this condition. My conclusion is therefore that I do not *know* that (basic) norms cannot be true or false. Aristotle’s position seems to me wise when he denies that principles represent knowledge. What is so fundamental that it cannot be shown to be the case by reference to more fundamental (true) principles is not *known*.

If by a “fundamental frame of reference” or a “set of basic assumptions” is meant what I take it to mean, the ultimately ontological or factual question “What *can* be the case?” has no answer that constitutes a piece of knowledge. One may vehemently disagree that norms can be true or false, but this is no proof of the cognitive character of the disagreement.

In reply to Österberg, I would say that if one sees analytical and empirical frames of reference as special frames of reference at the same level as idealist and Platonist frames, one is apt to consider explications of the frames as sets of postulates rather than insights. In that case, answers to “What can there be?” and “What can be the case?” will be either postulates or derivations from postulates.

Österberg tries to show that by logical necessity norms cannot be true or false. According to him, “ought” has a primary use, and this use is such that it *necessarily* involves someone telling another to do something: it is

true that I ought to do *X* if an authority expects me to do *X*. Why, though, should one obey the authority?

In some instances of “ought,” Österberg’s analysis may be correct, but it is certainly not correct of those instances that are of interest in our present discussion. All authorities may be wrong: they may tell me that I ought to be an informer but I know I ought not. “Why should I obey?” is a pertinent question if I am told by somebody to do something. In judging “I ought to do *X*,” however, we do not encounter a question of obeying somebody else. There is a sense in saying “All authorities say I ought to do *X*, but nevertheless I ought to do *X*.” Whether this is a primary use I consider irrelevant in the present context; I think empirical investigations of the use of “ought” would reveal that “ought” is often used in this impersonal way, and I do not see how one could argue validly against that use in support of Österberg’s thesis.

Thus, hypotheses about the use of “ought” do not warrant our concluding that norms by logical necessity cannot be true or false.

As regards the theory of responsibility and choice suggested by Österberg, I am afraid I do not understand it. Whether I act according to a true norm or violate it, I am in both cases responsible for my action. Karl Jaspers, who seems to hold opinions similar to Österberg’s concerning the “I” and its “freedom,” does not see any incompatibility between objective validity of moral laws and the “inescapable” responsibility of the “I.” It adopts it and enables it to become itself. It seems to me strange that Österberg, from his point of view, can tell another person that norms by *logical necessity* (common to both persons) cannot be true or false. I do not pretend, however, to understand his theory. My remarks are therefore purely parenthetical.

Reason, Democracy, and Science

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

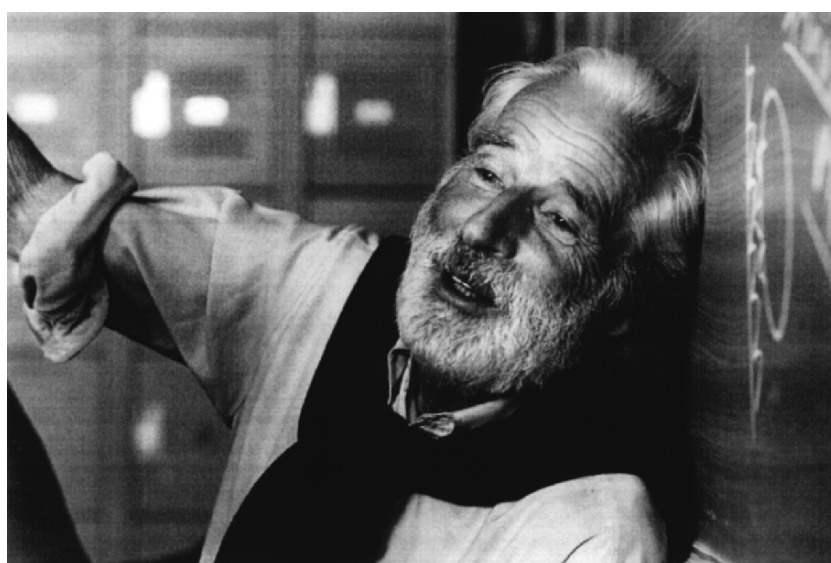
Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews
Selected Papers

Edited by Harold Glasser and Alan Drengson
in Cooperation with the Author

VOLUME IX

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)

ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved

© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>Series Editor's Introduction</i>	<i>ix</i>
<i>Author's Introduction to the Series</i>	<i>lv</i>
<i>Preface by Alan Drengson</i>	<i>lxi</i>
<i>Author's Preface</i>	<i>lxix</i>
I. Democracy, Ideology, and Rationality	1
1. The Function of Ideological Convictions	3
2. Analytical Survey of Agreements and Disagreements	29
3. Ideology and Rationality	91
II. Philosophy of Science	101
4. Science as Behavior: Prospects and Limitations of a Behavioral Metascience	103
5. A Plea for Pluralism in Philosophy and Physics	123
6. The Case Against Science	145
7. On the Structure and Function of Paradigms in Science	165
8. Why Not Science for Anarchists Too?	175
III. The Philosophy of Peace and Gandhian Ethics and Communication	187
9. Nonmilitary Defense	189
10. Can Violence Lead to Nonviolence? Gandhi's Point of View	203
11. Consequences of an Absolute <i>No</i> to Nuclear War	217
IV. Spinoza	233
12. Is Freedom Consistent with Spinoza's Determinism?	235
13. Through Spinoza to Mahāyāna Buddhism or Through Mahāyāna Buddhism to Spinoza?	255

CONTENTS

14. An Application of Empirical Argumentation Analysis to Spinoza's <i>Ethics</i>	277
15. Spinoza's Finite God	285
16. Einstein, Spinoza, and God	291
 V. Philosophical Development, Environment, and Education	 299
17. How My Philosophy Seemed to Develop	301
18. Deep Ecology and Education: A Conversation with Arne Naess	317
 <i>Notes</i>	 333
<i>References</i>	353
<i>Index</i>	361

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he

has witnessed the most significant loss of cultural diversity and the onset of what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bioregionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cul-

SERIES EDITOR'S INTRODUCTION

tural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of “fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess's philosophical palette, not the "world" of his own consciousness as has become the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our

SERIES EDITOR'S INTRODUCTION

experience of the world is made up of gestalts. “[This] is the world we experience. Nothing is more real.”⁴ People create abstract structures to reflect on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess’s parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess’s “ontological realism” as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of “reality is one” plays a central role in the mature Naess’s approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality’s concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. “As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence.”⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess’s perspective, such accounts by themselves are merely a sign of cultural poverty. “God” could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess’s gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as “the social construction of

nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any "natural" tendencies toward anthropocentrism. As with Leopold's Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we "see" reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess's hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples' (or other life-forms') opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess's own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, "For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape."⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced

SERIES EDITOR'S INTRODUCTION

by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

SERIES EDITOR'S INTRODUCTION

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept

SERIES EDITOR'S INTRODUCTION

the premise “For every decision we, explicitly or implicitly, take all things into consideration,” then the notion of total views or total normative systems can be seen as very “useful fictions,” which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definite-

ness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. “We have all read it. We *still* cheat in argumentation, but now with feelings of guilt.”¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as “truth,” “democracy,” and “private enterprise.” . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

SERIES EDITOR'S INTRODUCTION

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly pro-

SERIES EDITOR'S INTRODUCTION

lific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of

SERIES EDITOR'S INTRODUCTION

land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a “great idea” without Doug’s generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of environment should not, in Naess’s view, play a pivotal role in shaping a budding philosopher’s development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess’s philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess’s principal writings. As such, the *Selected Works* is the definitive repository of Naess’s oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess’s philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded,
and should follow his questions wherever they lead.

Arne Naess, “Norway”

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the

SERIES EDITOR'S INTRODUCTION

unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He

SERIES EDITOR'S INTRODUCTION

loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for “collecting” and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family’s little “wilderness” before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother’s small mountain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours’ walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza’s *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess’s desire for a broad and open perspective, for seeing things in totalities (god’s-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth’s biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potentially influence his approach to philosophy.

Arne’s youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School’s first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others.

SERIES EDITOR'S INTRODUCTION

During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way" —*sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical gram-

SERIES EDITOR'S INTRODUCTION

mar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of

knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather “witness” science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality (“maze epistemology”), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess’s interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess’s 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers’ intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related

SERIES EDITOR'S INTRODUCTION

these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as *"Truth" as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's "Common Sense and Truth" (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Ustaoset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created "institutes" of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into re-

SERIES EDITOR'S INTRODUCTION

search and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi’s catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi’s idea of trying to meet one’s opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war, Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO’s requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy*’s richness, diversity, and multiplicity of

SERIES EDITOR'S INTRODUCTION

meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess’s “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess’s empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess’s frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO’s plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess’s research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his

philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or im-

SERIES EDITOR'S INTRODUCTION

plied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last

group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation and Preciseness*, to argue that it is an illusion to assert that combined scientific and philosophical or "purely" philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN

SERIES EDITOR'S INTRODUCTION

IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V), was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), “Seek complete self-realization” and “Seek truth,” and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of “Self-realization!” as

the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical struc-

SERIES EDITOR'S INTRODUCTION

ture, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions taken earlier. Volume VIII includes sections on "Empirical Semantics and Truth," "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has

more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion, and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or

SERIES EDITOR'S INTRODUCTION

limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as “inventing” deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas’s 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson’s *Silent Spring*. Naess’s work on “deep ecology” can be subdivided into three main thematic areas.³⁰

What I refer to as Naess’s deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess’s general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work entering into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back

to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of "philosophical stupor," in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The "shallow," currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The "deep" approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach's proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans' special capacities for reason and moral consciousness come special responsibilities, particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the

SERIES EDITOR'S INTRODUCTION

Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-

evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only

SERIES EDITOR'S INTRODUCTION

who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy) make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally

than usual, rendering *praeclara* as “very clear” rather than the typical “excellent.”³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess’s distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this approach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people’s conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

SERIES EDITOR'S INTRODUCTION

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manuscripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and re-

SERIES EDITOR'S INTRODUCTION

ceive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface.

SERIES EDITOR'S INTRODUCTION

George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mul-

SERIES EDITOR'S INTRODUCTION

vaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible "work fairies" that were constantly pulling me back to my office don't actually exist. I can't wait.

Most of all, thanks to Arne Naess for placing his trust in me—it's been

SERIES EDITOR'S INTRODUCTION

a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora's box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne's writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder's "Axe Handles." The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five

SERIES EDITOR'S INTRODUCTION

hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

SERIES EDITOR'S INTRODUCTION

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.
6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.

SERIES EDITOR'S INTRODUCTION

8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher

SERIES EDITOR'S INTRODUCTION

Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.

SERIES EDITOR'S INTRODUCTION

24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhi's Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecology approach to ecophilosophy," the "deep ecology movement," and Naess's

SERIES EDITOR'S INTRODUCTION

"Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was

AUTHOR'S INTRODUCTION TO THE SERIES

"A philosopher." In fact, I had already conceived of myself as one. I viewed the writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that "What do I mean?" is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these "ordinary" people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems

AUTHOR'S INTRODUCTION TO THE SERIES

discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my

AUTHOR'S INTRODUCTION TO THE SERIES

knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclination very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

AUTHOR'S INTRODUCTION TO THE SERIES

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions for improving the readability of the first editions of *Scepticism* (SWAN II),

AUTHOR'S INTRODUCTION TO THE SERIES

The Pluralist and Possibilist Aspect of the Scientific Enterprise (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity, attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Preface

by Alan Drengson

The breadth of subject matter in these eighteen essays by Arne Naess is apparent from the first four section titles: (1) Democracy, Ideology, and Rationality, (2) Philosophy of Science, (3) The Philosophy of Peace and Gandhian Ethics and Communication, and (4) Spinoza. Then, in the final two essays in this volume, Naess explicitly relates the scholarly pursuits of his professional life to larger practical issues about which he cares deeply. The first piece in section 5 (originally published in 1983) gives us an overview of Naess's philosophical development throughout his career as a scholar, educator, and social activist, beginning with his first reading of Spinoza while still in high school. In the second piece ("Deep Ecology and Education," first published in 2000), he describes how he became a leading spokesman for the international deep ecology movement.

The close connection between Naess's scholarly work and his wide-ranging social and environmental concerns can be discerned throughout this volume. In section III, for example, Naess discusses the relevance of his work on Gandhi and nonviolent resistance to the peace, social justice, and ecology movements. (SWAN V, *Gandhi and Group Conflict*, is devoted entirely to Gandhi's philosophy of nonviolent activism.) Over his long life as an active scholar, philosopher, and mountaineer, Naess has applied his scholarly knowledge and research skills to furthering the main principles of the grassroots movements that aim for social justice, an end to war, and the nonviolent resolution of disputes. A nonviolent stance in our relations with the natural world is supported by the movement for deep ecological responsibility. For all these movements, nonviolence in language use is of uppermost importance for positive communication. Naess has always been strongly motivated to work for positive understanding and better commu-

nication. He is not a pure theoretician but rather tries to solve practical problems in relationships through Gandhian communication and improved clarity. Both in his methods of teaching and in his philosophy of education his aim has been to empower people confidently to develop and articulate a personal philosophy of life based on their ultimate values and view of the world (see chapter 18). This, he believes, is part of being a well-integrated person with a sense for the world as a whole. In logic and argumentation courses, he aimed to empower students to reason well, to state their views clearly, and to help others clarify their own views. These methods and aims make congenial learning and research possible.

Much of Naess's energy has gone into promoting greater clarity and better understanding through improved communication and education. Issues of communication and interpretation came together in his first major work (SWAN I). Helping him to advance this work were the lessons Naess learned in the 1930s from participating in the discussions of the Vienna Circle (chapter 17). Circle members showed him that philosophical and research undertakings are not necessarily adversarial but can be based on mutual respect and cooperation. In much the way that researchers work cooperatively to unearth fossils (Naess worked on a dig in North America), philosophers can work together to understand better the exact nature of human disputes and conflicts resulting from failures in understanding that, in turn, result from failures in communication. Interpretation is always involved when we use language, written or spoken, and the various interpretations necessarily exhibit personal features, colored as they are by cultural differences and unique personal experiences.

From his earliest days as a professional researcher, Naess has held in high regard the abilities of ordinary people (chapters 17 and 18). In his studies of *truth* as defined by experts and by ordinary people, he found that the nonexperts managed to come up with all the views articulated by the experts—and some others as well. In talks with Noam Chomsky and other theoreticians of language and philosophy of language, Naess found that their interests were primarily focused on syntactics, generative grammar, and theories about language that were not directly applicable to reducing conflicts and avoiding misunderstanding. They were working out details of abstract theoretical knowledge. In contrast, he favors looking in depth at what people actually say and do with respect to important central concepts

such as *freedom* and *democracy*. In that way, we can improve understanding in a wider context.

Naess has sometimes described himself as a wandering seeker (zetetic) of truth, knowledge, and wisdom (see, for example, SWAN II and VIII). His approach to philosophy is Spinozan in that he looks for the applied, daily-life implications of his philosophy of life and his global vision. Reading Spinoza for the first time when he was seventeen, Naess was inspired to try to articulate his own worldview and philosophy of life. He appreciated the way Spinoza articulates his grand vision by means of geometric exposition aimed at leading the reader to the same unitive insights and intuitions that Spinoza himself had about the integrity of our whole experience (see, especially, chapters 12, 15, and 16, “Is Freedom Consistent with Spinoza’s Determinism?,” “Spinoza’s Finite God,” and “Einstein, Spinoza, and God”).

Spinoza’s discussions of emotions and freedom are central in Naess’s interpretation of the *Ethics*. Unlike most Spinoza scholars, Naess thinks these qualities not only lie at the core of Spinoza’s philosophy of life but are of great practical importance in the modern age. Spinoza teaches a way of life that is joyful. His teachings on feelings are close in spirit to some of the great philosophies of life from the East, such as the form of Buddhism that Naess discusses in this volume (chapter 13, “Through Spinoza to Mahāyāna Buddhism, or Through Mahāyāna Buddhism to Spinoza?”). Spinoza’s emphasis on active, positive emotions as a way to freedom also sheds light on the life-denying features of negative, passive feelings. For Naess, Spinoza is a philosopher who sees life whole and, moreover, is able to sketch his total view through carefully defined terms and axioms expressed in Medieval Latin (chapter 14, “An Application of Empirical Argumentation Analysis to Spinoza’s *Ethics*”). Naess’s appreciation for the complexities and depth of Spinoza’s texts leads him to the recognition that there cannot be a single definitive interpretation of those texts. Like so many philosophical (and other) texts, they are rich and deep in possibilities that even the author himself did not fully recognize. As Naess points out, texts do not usually have a guide that explains how they are to be read and interpreted—and even if they had such a guide, the guide would have to be interpreted.

A reading of all the papers in this volume allows one to pick up the main themes that run through Naess’s ways of writing, researching, and thinking. He regards our spontaneous, uninterpreted experiences of the

world as far richer than we can ever express in any language (chapters 17 and 18). When we learn our native languages, and then specialized ways of symbolizing our thoughts and feelings, we are able to produce texts that become artifacts with a narrative life of their own. They become part of a body of literature with criticism and commentaries. This is true on many levels and for many types of documents used in a variety of settings, from constitutions and treaties to manifestos and political propaganda. Even when people come from the same culture and speak the same language, there can be widespread disagreement about how to read such documents, just as there are with religious and philosophical writings. Within a single tradition differences exist, for example, between spoken language, literary or poetic writings, and scientific textbooks. Often, too, there are contexts and specialties devoted to interpretation of key documents: court decisions, legislation, and the like. When cultures having different languages and histories, plus different religions and worldviews, encounter each other, these interpretive differences can increase exponentially. Under such circumstances, difficulties in understanding can easily develop. People sometimes feel threatened by worldviews they see as competing with their own values, and they cannot make sense of what their perceived opponents are saying. The result can be open conflict, escalating violence, or even widespread war (see, for example, chapters 1–3, “The Function of Ideological Convictions,” “Analytical Survey of Agreements and Disagreements,” and “Ideology and Rationality.”).

During the Cold War enormous tension developed between the Eastern Soviet Bloc and the West. Politicians in the West asserted that the Soviet system was not a democracy as there was no freedom of press, expression, or religion within its sphere of control. Some key Soviet documents, however, seemed to favor freedom and democracy. Naess compared how certain key terms were used by Russian writers (see his discussion of Zaslavski’s texts in SWAN I) and how the same terms were used by authors in the West. Later, he took part in an ambitious study funded by UNESCO to find out exactly what different people—experts, policymakers, and others—thought about key concepts such as *freedom* and *democracy* (chapter 2). Eastern and Western experts and policymakers were polled by means of questionnaires and documents on which they were asked to comment.

Naess’s UNESCO research showed that no clear consensus about these

matters existed in either camp. Neither side, it turned out, exhibited very much internal agreement. This research was undertaken using a methodology that Naess had helped pioneer in earlier studies of scientists doing science and of what experts and nonexperts think about *truth* (SWAN VIII) and intrinsic values in Nature (SWAN X, chapter 18). The methods developed and used were part of his engagement in empirical semantics (see also SWAN I, VII, and VIII), a descriptive discipline that attempts to understand how language functions in everyday life, in various academic and other specialties, and cross-culturally. While other philosophers were assuming they knew what ordinary people meant by various words, Naess decided that we should observe and ask questions. When others speculated on how science is actually done, in their attempts to clarify what science is, Naess conducted empirical research by observing experimental psychologists working with rats. (Naess himself had also done experimental research with rats; see chapter 17.)

In using Naess's approach, one soon learns that the actual practice of science is considerably more diverse than would appear from reading textbooks about science. In texts about science, we are given to understand that there is consensus, that all scientists more or less think and do the same things. Naess shows that the idea of a specific scientific worldview, complete with all the *it*'s crossed and *is*'s dotted, does not follow either from historical studies or from observations of the current state of science in the West. Moreover, the historical studies of science in the differing traditions of East and West lead us to identify an even greater diversity of views regarding how the world is to be understood and related to, and how human beings should value and work with it.

Science as open inquiry is based on the integrity of individual researchers (chapter 5, "A Plea for Pluralism in Philosophy and Physics"). One could say that in this sense it is a democratic undertaking, since people and communities should be free to make their own observations of how things happen in their own places. In modern industrialized societies, however, science has become a professionalized enterprise, a place or cult for the expert and specialist (chapter 6, "The Case Against Science"). In addition, special interest groups and government policies strongly direct scientific undertakings in the industrialized world, funding or not funding research according to their own priorities. As we know from much experience, sci-

ence as an enterprise has not always worked to further freedom, nonviolence, and democracy (for more on this, see SWAN IV).

The modern approach to science, pursued after 1550 in the West, is unique in the emphasis it places on prediction and control and in its development of highly specialized disciplines that fragment our knowledge of the world. The world, Naess has always felt, is one. Reality is one, but it is multifaceted and there are endless ways to describe it. One of the important lessons learned from the study of global ecosystems is that human cultures are interacting parts of these systems and, as such, should not be thought of as outside them (chapters 17 and 18).

Beginning early in his life, Naess's approach to open inquiry has combined all his interests with a desire to articulate his total view using all forms of knowing and experiencing, all types of methods and experiments, always guided by a philosophy of nonviolence and respect for individuals. He has distilled the values at the core of his personal philosophy into a single fundamental norm, "Self-realization!" which he then expanded to "Self-realization for all beings!" (chapter 17). He became aware early in life that we have a sense for the wholeness and unity of the world that comes from our undivided spontaneous experience of it as we are fully in it, such as while wading in the sea or walking in a mountain meadow. For all of his adult life Naess has been an alpine mountaineer, a follower of Gandhi, and a wandering seeker who decided early on that it was his life's calling to be a philosopher in Spinoza's way.

Throughout the essays in this book, we see evidence of Naess's wide-ranging interests as well as his commitment to open inquiry and nonviolence. He strives to be inclusive and generous. In all his undertakings he tries to bring about better communication and understanding by using a variety of methods. He feels that it is a sign of maturity when we appreciate diversity on *every* level, from personal to cultural. As Spinoza said, the more we know about the world, the greater our appreciation for the way things are, and then we realize that our smallness is a way of being in tune with God, or the ultimate. Our freedom is found through deeper understanding and through emphasizing positive active feelings (chapter 12, "Is Freedom Consistent with Spinoza's Determinism?"). Deep understanding depends on nonviolence, even in attitude. When we sit quietly in a meadow or a tidal pool, the lives around us return to normal.

Another realization that came to Naess early in life was that he did not want to become a specialist. He wanted to understand how the world hangs together and what the most important values are for having a meaningful and joyful life. He found his joy in mountain climbing and in the search for interdisciplinary knowledge, communication, and understanding. These have distinguished his career. Through his empirical and logical studies he came to appreciate that there are no value-free inquiries. All knowledge pursuits are value-laden; even pure logic assumes certain values, such as consistency. Comprehensive knowledge leads to understanding, and each of us acts *as if* we had a total view, even if we cannot articulate it very well. The better we understand and can articulate our own total view, the more confidence we have and the better we can communicate with others about our thoughts, feelings, and values.

Naess has devoted considerable effort to clarifying and exploring normative systems and qualitative evaluations of experience and the world. In his youth he loved math, logic, and other quantitative subjects. As he grew older he realized that the Earth's material resources are limited and that we must put a cap on material consumption. In the domain of quality of life and deep experience, however, there are great possibilities for endless expansion. For example, there are countless ways to appreciate beauty in the world. Even if we only improved the quality of our immediate relationships at home, our life quality could rise enormously. There are so many ways to find joy in the smallest things in the world around us that science can be a wonderful undertaking at any age. Science and philosophy should not, in Naess's view, be the special province of adult experts; they should be open to everyone. We can develop and use all sorts of ways to learn more about the world and life, about values and quality of experience, provided we exercise our creative imaginations, are willing to apply ourselves, and are willing to act freely with an open mind. As a wandering seeker Naess searches for knowledge and truth. He states his ultimate values and assumptions about the world, but he never claims to have the one defining right view. He encourages others to state theirs and he finds joy in this diversity.

Even when the great pluralism of worldviews, cultures, and ways of doing science seem inconsistent with one another, conflict can be avoided. (These issues are raised in chapters 5, 7, and 8, "A Plea for Pluralism in Phi-

losophy and Physics,” “On the Structure and Function of Paradigms in Science,” and “Why Not Science for Anarchists Too?”) Just as we learn to live with inconsistencies in our personal lives, so we can come to appreciate the cultural, religious, and philosophical diversity on Earth as akin to the biological, ecological, and individual diversity found throughout the natural world. Naess shows by his example that appreciating this diversity can lead to a sense of unity on a global scale, since with maturity and wisdom we realize that diversity is life’s way of creating energy. Acting in generous and beautiful ways by giving more to the Earth than we take (chapter 18), more to our community than we take, and more to future generations, we can help to build a world without war, with ecological sustainability and social justice, and yet with diverse cultures. (On the end to violent conflicts, see chapters 9 and 11, “Nonmilitary Defense” and “Consequences of an Absolute *No* to Nuclear War.”)

One key to peace is a better understanding of the nature of languages as they are actually used. How do they shape the lives, feelings, and thoughts of people in different cultures around the world? This study, as exemplified by Naess, leads us away from dogmatism, from thinking our way is the only way. We realize that there are many wonderful possibilities for creating ever greater diversity with sustainable cultures of place. Unfortunately, there are forces working against this deep movement under the guise of a globalization that aims to control other nations as a first step toward turning them into modern Western consumer societies. Naess has worked to realize other possibilities, among them the combination of localization with international cooperation for global concerns (chapters 17 and 18). He welcomes thriving vernacular cultures that preserve the integrity of the natural world in their home places. He also stresses the importance of international cooperation with commitment to principles cutting across cultural boundaries, such as the platform principles of the deep ecology movement. He has shown a way for reason, democracy, and science to flourish in freedom and diversity.

Author's Preface

Reflections on My Papers and the Selections in SWAN VIII–X

During my active life as a researcher and author, I have published far too much to be a polished writer. I have a long practice of working a set number of hours each day, and at ninety-two I have lived a long life. I hold to this even when I live in my mountain hut, Tvergastein. Over the years I have carried in many precious big reference books to put in its “library.” Writing philosophy in the hut, while looking over a vast mountain and alpine landscape, gave me a different feeling and perspective than when working in my office at the university or in my study at home. Each setting is very different and seems to bring out different aspects of the same subject and of myself. There are also the differences in dialect and local customs that fed my search for an ever more complete total view. To me this diversity is good to appreciate for its own sake. Writing, like teaching, is a way to find out things rather than just a dull report on the past. Writing philosophy for me is an ongoing project, a kind of meditation; in a sense, it is something that I must continue daily, because I continue to have more and more gestalts integrated into my total view with feelings of wholeness.

I never regarded the papers or even the books I wrote to be final drafts, but always works in progress, since my life, philosophy, and worldview are all in an ongoing process of change. Altogether, I have probably written thirty or so books published in various languages, and some in several languages. I have had many coauthoring adventures. There are manuscripts of books started but still in progress. I probably have some finished but unpublished book manuscripts. In the area of smaller-scale publications and writings, there are many kinds of pieces from very short to very long—for example, short reviews, long reviews, discussions, definitional pieces, long

AUTHOR'S PREFACE

single-subject essays, historically oriented papers, formal logic pieces, empirical studies, studies of conceptual systems—pieces on so many different subjects that I am somewhat embarrassed by my lack of attention to other things. I almost always write with passion but am not so keen to keep detailed records of my scholarly research, and at Tvergastein these resources are limited.

I have hundreds of manuscripts of articles, reviews, and other nonfiction pieces in my collection. The SWAN project has been a wonderful undertaking because it helped me to get my works organized to be more accessible to a larger audience. My dear wife, Kit-Fai, has been so good to my work that I can only describe her acts as beautiful. She, along with Harold Glasser, Alan Drengson, and others, plied me with endless questions about my works and individual pieces, for references, for greater clarity, for a better organization in time, and so on. The result is an assemblage of more than seven hundred published and unpublished papers.

We were choosing books to publish and papers for the anthologies of my selected works in English. We settled on seven books to be republished as the first seven volumes in the SWAN series. After some discussion with others, we decided to have three volumes of my papers for a total of ten volumes. We pondered what to include in the anthologies of papers and how to organize them. The result is a collection of writings that is a very deep and broad representation of the large number of papers of my work. The first two volumes are devoted to all the subjects I have worked on, from earliest to latest. These collections (SWAN VIII and IX) are organized in thematic sections somewhat chronologically. We decided to devote the third collection to my writings on deep ecology, because they are the most complete example of a total view that I have been able to offer.

Deep Ecology of Wisdom (SWAN X) is in many respects the most complete volume in the series in that it shows the total sweep of my work. It shows how my comparative and ecological inquiries brought together all my interests and studies. It was also a natural place for me to apply empirical semantics guided by a personal mythology, an undertaking that in the 1990s was offered in my book *Hallingskarvet: How to Have a Long Life with an Old Father*. The Tvergastein article in SWAN X (chapter 33) is an example of the philosophical, empirical, and semantic studies that were saturated with this place through time. SWAN X also includes a comprehensive bib-

AUTHOR'S PREFACE

liography of my works in English, which gives readers the most direct access to this whole body of work. Everything in my work is represented, from Spinoza's philosophy on emotions and Gandhian nonviolent communication, to essays on ontology and mountaineering. All of my work comes together in SWAN X. Readers will see the role of my desire to further nonviolent communication and my scepticism about there being only one worldview that is "true." These reflect my love of diversity.

I have mountain perspectives on worldviews. So many of them are beautiful and so suitable to their places! It is a wonder for me to behold this creative diversity. I found the same on the ground around my hut in the extreme mountain arctic conditions there. Even there, worlds within worlds! In that setting, life energies and mysteries are ever present. I came to approach all research from philosophy to ecology as if I were a field naturalist. This is reflected in my writings. Writing for me is a process of creation, discovery, and systematization; an art that helps me to assimilate and be whole with the more I see, as time goes on, from so many different perspectives. A synoptic view, almost holographic, emerged in my writings in many places. Traveling a lot added to learning these things.

Questions of meaning, preciseness, and interpretation are central to all that I do. We greatly underestimate ourselves in relation to our capacities, but we also greatly overestimate (violently at times) the seeming importance of disagreements over words that are frankly not very precise. The very effort to become more precise is itself an enlightening process that, once started, continues with a natural flow on its own. It is a settled practice that flows through my writing. Gandhian nonviolent communication also runs through my daily writings and practices; it is a second nature. My writings are active engagements, and for this reason I do not find them boring or painful. It is a joy to write about these many subjects that have engaged my passionate interest, especially in relation to the natural world.

Readers of these three volumes of selected papers who want to see my work in a more or less organic way that is roughly historical should read these papers in order, SWAN VIII through X. Those who want an overall look at my whole program of research, writing, and lifestyle should first read volume X. They could also read the last two chapters in SWAN IX, "How My Philosophy Seemed to Develop" and "Deep Ecology and Education: A Conversation with Arne Naess."

AUTHOR'S PREFACE

I have been reflecting on my writings and the way I approach and feel about this work. Let me say something about the different research hares I have chased and the lesser peaks and major mountains I have climbed in the process. I will do this by focusing on a recent ten-year period, from 1987 to 1997.

What has made me eager over the decades to continue writing articles in such great numbers? My spontaneous answer is that these are important questions not only for me but also for everything that it is worthwhile to sustain or develop further. By chance, this very sentence exemplifies a question of this kind: what is meant by “not only for me but . . .” and who is the “me” here? Among such questions there are some to which, as an optimist, I feel I can still contribute. These questions fall into two categories: those related to the ecological crisis and those philosophical questions far away from the ecological crisis. Writing for me is a series of adventures that are part of a larger mythopoetic nature narrative.

I thought that in recent decades the environmental crisis articles would make up the majority of my papers during this time, but to my astonishment that is not the case. For example, in the five years from 1991 to 1995, 61 percent of the articles published [by 1997] deal with general philosophical issues, and 68 percent of the unpublished ones are of that kind. Some of the articles are short, only five pages, which in part explains the large number of articles—78 published and 130 unpublished—during this time. I do very little to get my articles published.

One of the philosophical articles has the title “We need philosophies as life- and worldviews.” Many articles, some used in lectures in various parts of the world, deal with what I hope will characterize university philosophy in the twenty-first century: addressing central questions of what constitutes a meaningful life, diversity of cultures, and the nature of reality. Who are we, where are we, and what do we want most? The last question concerns value priorities. University philosophy, *not* the philosophy of “the man in the street” or of writers in general, has been centered on our talk itself, not on what we talk about. It is often talk about talk. The latest fad has been to stop talking about the variety of conceptions of the world in favor of talking about what are called social constructions, just to mention a focus different from life philosophy and worldviews. (Is nature a big *social* construction?) Clearly, as soon as we start *talking* about anything, for example,

about what is “talk,” what is “social,” and what is a “construction,” we are using a *social* creation, *intersubjective* talking. This does not undermine our excellent, direct relations to the matters we talk about and, I am glad to say, have different views about, some of which are quite personal and individual.

I will not bother to explain all the approaches I have taken within the philosophical sphere. I shall only offer some hints. In ethics I have taught, lectured, and written on the conception of being a “traitor,” a word applied to tens of thousands of Norwegians who in different ways were “on the wrong side” during the Nazi occupation of Norway by Germany. Many who did not deserve it were put in prison. Many believed that Hitler would win the war and that the continued independence and freedom of Norway depended on maintaining good relations with the occupying power.

Norway twice has said “No thank you!” to joining the Common Market, now called the European Union. I have written against joining on the basis of a philosophy that favors cultural differences. The EU is a big step in the direction of economic globalization, a formidable obstacle to cultural integrity and diversity. Some call this effort of mine “applied philosophy,” and I agree.

I have called a class of life- and worldviews *Spinozistic*, and my own view belongs to this class, but that does not *imply* accepting as true or valid any of Spinoza’s axioms and theorems. A long series of my articles deal with Spinoza, especially the central position of strong active emotions as a requirement for increasing our freedom and power, a rather un-Western view! I have explored and written about many Eastern philosophies, including Indian and Chinese. Some of my articles compare Spinoza’s views with Buddhist philosophies.

Gandhian studies continue with what I call the “principles of Gandhian communication,” a form of strict nonviolence. The role of the mass media in tough conflicts makes fairness of central importance. Treatment of an opponent as a fellow human being must be without blemish, even when his views seem to be, or are, horrible, despicable, and idiotic—and even if he is a mass murderer. This treatment is *compatible* with the expression of a strong and honest rejection of the views and actions of an opponent.

Felt suffering has been an important theme in my papers for many years. There is a strange, socially and politically important underestimation of acutely felt suffering and an overestimation of a quantified but not necessar-

AUTHOR'S PREFACE

ily *felt* suffering. If by chance a hundred people living distant from one another simultaneously suffer from a slight headache, this multiplicity of persons does not make the felt suffering stronger. I am deeply interested in the quality, the *feelings* of strong suffering, not some “abstract sum” of suffering.

Suppose we have a chance either to rescue a person from continued, systematic torture or to diminish the slight pain of a million people. As I see it, the choice is ethically unproblematic: rescue the tortured person! Politically, the implication is clear: much greater effort is needed to help people in certain extreme conditions. This, of course, cannot be done without angering dictators. What I call the *intensity principle* in dealing with suffering is generally not considered valid, and the possibility of saving people from continued torture is judged to be very small. As I see it, the problem is that usually only conventional means are considered. We need people with imagination, people like those who rescued thousands of tortured persons during the Second World War and the occupation.

As a philosopher influenced by analytic philosophy and an admirer of mathematical physics, cosmology, and pure mathematics, I regarded the one-hundredth jubilee (1991) of the birth of Rudolf Carnap and Hans Reichenbach as an opportunity to rethink my opposition to their philosophical standpoints and to logical positivism in general. I deeply respect their work, and especially their clearness in the matter of premise-conclusion relations. I have worked hard with a normative system that has only one ultimate normative premise, “Self-realization!” It is a result of the influence of my studies in logic and formal systems. In their work, the logical positivists encouraged each other, discussed with fairness, and used each other’s insights. They were not afraid of real disagreements. This is very unusual in intense philosophical discussions! I try to be fair and cooperate in discussions with my critics in social ecology and ecofeminism.

Going back to the five years from 1986 to 1990, I see that my papers are colored by contributions to the deep ecology movement. There is, however, a notable exception in my writings: what I call *gestalt ontology*. Ontology is an old branch of philosophy that tries to characterize what is real compared to what only appears to be real. Might a birch be bright green and joyful, or is it *really* colorless? Is joyfulness perhaps only a “projection” of joy being felt by an observer? Very roughly, my answer is that *spontaneous experiences* are direct experiences of something real. Joyfulness is

AUTHOR'S PREFACE

on a par with tallness and specific weight, when we only talk about pure realness. The experiences have a gestalt character. They are complex wholes, not merely atomistic.

The focus on spontaneous experience may be of positive value for deepening and intensifying positive experiences in nature. This focus also accepts the status of negative experiences. If, for example, a city dweller exclaims "Horrible, threatening" when suddenly facing a large waterfall, it is inappropriate to counter with the assertion "You are mistaken. It is really beautiful!" As to the character of being threatening, one might say that it would be a mistake to predict that the water will engulf us. This is just what gestalt ontology says. We can even have a slightly different version; it leads into rather professional philosophical terminologies. Its main thrust radically undermines the claim that only the exact physical sciences show us what is real. On the contrary, they increasingly focus on extremely *abstract structures* of what is real and do not, as sciences, describe any *concrete contents*.

As an outline of my work (from 1987 to 1997), the above gives a rough picture that is a fair description for earlier periods. I should perhaps add a word about my only published book in the 1990s: *Hallingskarvet: How to Have a Long Life with an Old Father* (1995). The main title is the name of a great Norwegian mountain; the subtitle refers to my personal relationship with the mountain. Already at age ten, I looked upon this mountain as being like a wise, benevolent father, but also as a supreme place to live. (My own father died when I was about a year old.) I found in this place an outline of my *mythopoetic life vision*. Many others, I suspect, are today creating such valuable myths of their own. I hope my writings encourage them. If so, these works will serve a useful purpose. So, finally, I am at the end of this written narrative. I invite readers to find their personal paths through this varied and multidimensional terrain of my writings. Follow your own wild passionate feelings.

Arne Naess

2004

Analytical Survey of Agreements and Disagreements

Introduction

In its recommendations for the use of material collected through the UNESCO inquiry into ideological conflicts, the Committee of Experts, which met in May 1949, suggested that an analytical survey of agreements and disagreements explicit or implicit in the material be worked out and published along with a selection of significant contributions received in response to the inquiry. On the following pages an attempt will be made to trace the outlines of such an analysis.

To facilitate assessment of the validity of whatever conclusions are suggested in the following, a few remarks on the character and limitations of the material under scrutiny are called for.

The inquiry undertaken by UNESCO was from the outset conceived as an enterprise in philosophical analysis: in analysis of meanings, conceptual differentiations, theoretical implications, and normative foundations. The preparation of the inquiry was guided by the idea that considerable progress toward the clarification of the grounds of current conflicts could be made through the initiation and organization of philosophically detached debates across national and ideological frontiers. Several avenues of approach to the implementation of this idea were discussed. The assembling of general essays on themes like “the nature of ideological conflicts,” “disagreements over democracy,” “the essence of democracy,” and so on, was found to be of little avail. Some device had to be found that would en-

This article was reprinted with the permission of UNESCO Publishing from *Democracy in a World of Tensions*, edited by Richard McKeon with the assistance of Stein Rokkan (Chicago: University of Chicago Press, 1951), 447–512.

DEMOCRACY, IDEOLOGY, AND RATIONALITY

sure a higher degree of comparability between opinions held on the more precise problems involved in the general issue. In an effort to achieve this end, a fairly detailed questionnaire was worked out. In its final form,¹ this questionnaire did not make any pretensions toward exactness in its formulations but was mainly intended to induce scholars and experts to focus their discussions on approximately the same range of basic problems and thus make it possible to reach a clearer picture of the location of agreements and disagreements.

The questionnaire thus devised was distributed directly or through National Commissions to almost six hundred philosophers, political scientists, jurists, historians, sociologists, economists, and others who had given evidence of interest in the foundations of ideological conflicts. Of those thus approached, more than one hundred sent in direct contributions to the inquiry. Others confined themselves to referring to or sending books or articles in which they thought they had already stated their views on the problems at issue. Still others explained that lack of time and the urgency of other commitments prevented their taking part in the inquiry. A few of those approached complained of the abstruseness, or futility, or both, of the undertaking, but on the whole the reactions registered were positive and sympathetic.

A considerable number of these contributions took the form of letters discussing one or more aspects of the problems at issue. Others were confined to laconic replies to the questions listed or consisted of short notes on a small number of points that had been found particularly important. A majority of the contributions, however, were fairly thoroughgoing in analysis and argumentation and were undoubtedly based on conscientious rethinking of the problems in terms of the approach adopted by UNESCO. Some of these took the form of general essays on the theme of the inquiry, and a few actually comprised monographs on more limited topics like the history of the usage of "democracy," the Marxian conception of "democracy," Soviet definitions of "democracy," and so on. Most of the more thoroughgoing contributions, however, kept fairly close to the order of questions in the questionnaire: although very few respondents found it worthwhile to work out replies to *all* the questions, a great many gave their views on more than half the questions.

A small number of the contributions were mimeographed and distributed to other contributors for cross-discussion of points of disagreement.

Unfortunately, only a small beginning could be made within the framework of the UNESCO inquiry toward systematic organization of such cross-discussion. A few samples of comments and replies to comments were included in the UNESCO volume described in the introductory note to the first article in this section and in the notes to this article.

The material made available through the UNESCO inquiry cannot in any way claim to be representative of world opinion in a statistical sense. Nevertheless, the material may be said to make up a significant cross section of enlightened opinion on the foundations of current conflicts concerning democracy. All the major trends of ideological thinking in the world of the postwar era have, in one way or another, found expression in the material, but unfortunately not always in direct proportion to their world importance, however that may be measured.

In the account of agreements and disagreements that follows, no attempt has been made at statistical tabulation of the data in the material. Given the relatively small sample and the geographical as well as ideological arbitrariness of the distribution of responses, any effort toward quantification would seem futile. Instead, all cases of complete agreement or disagreement have been explicitly noted; intermediary cases have been described by vague phrases such as "the majority," "many," "some," and "few." In a number of cases it was difficult to work out any definite classification of opinions and far more fruitful to outline analyses of the relationships between individually stated opinions. Adequate surveying was also made difficult by the fact that hardly any of the thirty questions of the questionnaire were given explicit answers by *all* the contributors. For several questions, so few answers were found in the material that it was thought advisable to pass them by in the survey.

It should be borne in mind that the analytical survey given below sets itself the task of taking into account opinions expressed in *all* the direct contributions received: it will not be confined to those published in the UNESCO volume. For reasons of space as well as to avoid repeating similar views, we could not print all the material: a selection had to be made. This survey may serve to remedy to some extent the inevitable shortcomings of a selection of this nature by supplying direct or indirect accounts of the ideological opinions and the philosophical analyses of a number of the scholars and experts whose contributions could not be printed in the UNESCO volume.

DEMOCRACY, IDEOLOGY, AND RATIONALITY

The publication of a volume of this kind will serve the purpose of acquainting a wider public with the complexity and diversity of ideological thinking. In the existing literature on the controversies on "democracy," only rare and unsystematic attempts have been made at comparative analysis of opinions held on the precise issues into which the general problem can be broken down. The UNESCO questionnaire has served to press the argumentations of the opposing parties into common or nearly common thematic channels and thus made a comparative survey possible.

The aim of the ensuing account is to trace the outlines of such an analytical survey of agreements and disagreements explicit or implicit in the material at hand.

The analysis will make it abundantly clear how desperately difficult it is to compare ideological patterns of argumentation in terms of theoretical agreements and disagreements rather than in terms of historical affiliations or concrete political antagonisms. By stating these difficulties in a frank and intellectually honest way, I hope that the analysis may serve to counteract tendencies toward ideological black-and-white thinking and toward propagandistic oversimplification of the issues. In this way, painstaking analysis of ideological opposition may serve the purposes of UNESCO by counteracting tendencies to obscure whatever is common to the doctrines of conflicting groups. An important step toward world understanding might be achieved through concerted action to thwart the effects of the kind of ideological thinking and propaganda that tends to exalt existing antagonisms beyond all possibility of settlement.

The classification of opinions expressed in the material under scrutiny has proceeded from the tentative assumption that ideologists mean what they say: that when someone expresses an opinion as his own, he has that opinion. The possibility that he lies—deliberately or unintentionally—is not discarded by this tentative assumption, but the assumption serves the pragmatic purpose of counteracting any tendency to succumb to the temptation of interpreting and classifying ideologically opposed statements so that they fit into preconceived and stereotyped pictures of the antagonism. The aim is to analyze controversies, not to continue them. One way to achieve this end is to classify statements at their face value. That is what has been attempted in the ensuing survey.

The obvious objection to the adoption of an initial assumption of this

kind is that no understanding of conflicts can be achieved without an analysis of the *motivations* of the statements from opposing camps, without an analysis of what is *really meant* and *really wanted* by those who use ideological concepts and appeal to ideological principles and ideals: it is such a trivial truism that people may really want and mean the very opposite of what they appear to say.

Nevertheless our tentative assumption can be upheld, and for three reasons at least:

1. What people say is, after all, one important symptom of what they “mean”: any opinion leader attacking ideological opponents will easily deceive his audience if for each statement he does not make it clear whether he is describing what his opponents say they believe or what he indirectly infers that they “really” believe.
2. Any one of us who has honestly tried to compare the doctrines of his own group with those of his opponents will have to admit how much harder it is to apply the brutal tools of motivational analysis to our own rationalizations, hypocritical appeals, and tacit assumptions than it is to those of our ideological opponents. Deeper insight into the intricately biased character of current imputations of “real” meanings and motives may result in valuable attempts to treat ideologically opposed doctrines on an equal footing, either by subjecting both to the same rigors of motivational analysis or by taking the more lenient approach of analyzing both in their surface expressions.
3. Even if we can prove that the opinion leaders of our ideological opponents hold doctrines very different from those they say they hold, there may well be large masses among their followers who believe just as sincerely in their expressed doctrines as we believe in our own. Uncritical emphasis on motivational analysis may therefore serve to strengthen the widespread ideological tendency to picture opponents as a homogeneous mass manifesting the same evil traits that have been imputed to its ruling group.

It goes without saying that this argumentation in favor of a comparison of expressed doctrines does not imply any depreciation of efforts to go

beyond the verbalized reactions of human beings. However, the comparative analysis of expressed doctrines is an important initial phase in ideology research. The material under scrutiny does not allow us to go any farther in this analysis: the study of the behavioral correlates and the social and historical settings of ideological controversies will have to be based on broader foundations of theoretical inquiries, historical investigations, and experimental research.

The Semantics of *Democracy*

Is the Term Democracy Ambiguous?

From the very outset of this inquiry nearly every one of those who discussed the matter seemed to expect universal agreement among the experts consulted on the first of the questions in the questionnaire: they were all expected to answer that democracy is ambiguous. A survey of the actual answers, however, reveals that they did not. A few of the contributors expressly deny that democracy is an ambiguous term. Several others attribute to it an unambiguous core of meaning unaltered throughout its usage in historically and geographically varied contexts. The majority of the contributors, however, expressly affirm the ambiguity of democracy. It is true that the introduction to the UNESCO document and the very wording of the question may have led a number of them to adopt this view without critical scrutiny, but that is a matter that will have to be left to conjecture.

One outstanding reason for the discrepancies in the reactions to the ambiguity question must be sought in the imprecision of current semantic terminology. Only crude beginnings have been made toward critical assessment and theoretical integration of basic concepts in semantics. Current usage of terms like *meaning*, *definition*, *synonymity*, and *ambiguity* is so vague that agreements as well as disagreements of a purely verbal character are constantly apt to crop up. There is no semantic highway opened up anywhere to the clarification of ideological disputes: rigorous analysis and codification of the theoretical structure of semantics and the logic of concepts and definitions will have to precede any successful attempt in this direction.

As used in the UNESCO document, the word *ambiguity* easily lent it-

self to divergent interpretations. There is ample evidence that the respondents did not all understand the word in the same way. The disagreement registered between respondents affirming and respondents questioning or denying the ambiguity of democracy may not necessarily have reflected ideological or theoretical discord but simply a difference in interpretation and usage: the disagreement might not have emerged at all if the question had been given a more precise formulation.

Those who deny the ambiguity of the term *democracy* do not therefore deny divergencies in its usage; on the contrary, they all expressly affirm that the term has been used in different ways in different contexts by different groups. That the word *democracy* is used in different and occasionally incompatible ways is not questioned by anybody. What is questioned is whether these divergences of usage constitute ambiguity and whether they are at all relevant to the determination of the meaning or meanings of democracy.

Several of those who entered upon an analysis of this problem have taken a stand for strict separation of meaning from usage.

Risieri Frondizi² takes the view that the word *democracy* is neither ambiguous nor unambiguous per se; it is only its usage that is ambiguous. An almost identical assertion is made by C. J. Ducasse,³ but perhaps for very different reasons. Statements by D. Brown, Charles Eisenmann, and Gunnar Heckscher seem to go in a similar direction.

How, then, is the meaning of the word to be determined if its actual usage is not to be taken into account?

A number of respondents simply postulate one sense as the only legitimate one, as the intrinsic, strict, or correct sense: actual usage may deviate from this sense but cannot alter it.

Thus, C. I. Lewis does not think that *democracy* is more ambiguous than most words in "its first, literal, or strict meaning": "All will agree that strictly it applies to any political regime in which the sovereign power is vested in the people at large, and that it applies to no other."⁴

Henri Lefebvre does not think there is any ambiguity in the concept of democracy: "Democracy clearly implies justice, liberty, order, progress, reason, fraternity, and a living community of individuals within the nation."⁵

Barna Horvath identifies democracy with "good self-government": "government by unanimous decisions proved to be good and useful to all."

This general sense of the term is stated to be perfectly clear and entirely free from ambiguity.⁶

Other respondents are equally bent on finding a central formula for the fundamental meaning of democracy but take greater care to determine the relation of this meaning to the traditions of usage.

Thus, Richard McKeon does not consider democracy ambiguous "in the sense that many different formulas have been proposed to define its meaning, but in the sense that many different interpretations have been proposed and elaborated for a formula on which there has been remarkable continuity of agreement. . . . Very few discussions of democracy, adverse or favorable, would be distorted in interpreting 'democracy' as the rule of the people in their own interest."⁷

Limiting his discussion to the nineteenth and twentieth centuries, John Petrov Plamenatz is convinced that implied by practically all serious statements that communists as well as liberalists have made about democracy is a primary meaning he thinks can be roughly defined as "government by persons who are freely chosen by and responsible to the governed."⁸

Going all the way back to Greek origins, G. C. Field thinks there is "overwhelming evidence" that traditional usage bears out a similar definition: "A state is democratic . . . in so far as the whole body of citizens . . . exercise an effective influence on the decisions of government."⁹

Jørgen Jørgensen discerns a far more general core meaning through the variations of usage and application: to him, democracy should be equated with "a general process of liberation and equalization" in all areas of human life.¹⁰

All those who have thus tried to formulate what in their opinion is the fundamental meaning of democracy have immediately felt themselves confronted by the problem raised by current ideological controversies over this keyword: Why the divergencies in usage despite the unity in meaning? Why the disagreements in interpretation despite the agreement in definition?

Solutions of the kind suggested by McKeon are explicitly or implicitly accepted by a number of respondents; agreement can certainly be reached on a central formula defining a basic concept, but disagreement will arise as soon as the different elements of the formula have to be interpreted in and applied to concrete social and political situations.

Chaim Perelman amplifies this approach by analyzing the possibilities of establishing a “normal sense” of the term: attempts might be made to arrive by way of inductions from empirical investigations at determining a structure common to all historically known usages of democracy. An empirical definition of this kind might take the form of a propositional function of one or more variables: agreement might then be possible on the structure of the function while controversies would continue on the value of the variables. It might, for example, very well be possible to define democracy as “government for the equal welfare of all as determined through the free decisions of all”: the only advantage, if any, would be to have transferred the focus of controversy from “democracy” to “welfare,” “equality,” and “freedom.”¹¹

Several respondents go into further detail in explaining the relationship between the fundamental meaning and the divergencies of usage.

Horvath, Lefebvre, Plamenatz, and Heckscher, however different their approaches may otherwise be, can all be classified as taking the view that the general meaning of democracy is as clear and free of ambiguity as ordinary language permits: it is the expression of an ideal, a standard, and a goal, a reflection of human aspirations. Ideological disputes do not arise from disagreements on this general meaning and the ideal type of human relationship it expresses: the disputes concern the conditions that make for progress toward the ideal, the means by which it can be reached, the order of measures to be taken in developing it. As a consequence, current ideological controversies do not center on the meaning of democracy but on theories of the conditions of its growth and the means of its accomplishment; what stands opposed are not analytical statements of definitions but synthetic statements of social and political interrelations. Accusations of ambiguity and misuse arise from unconscious confusions of means with goals as well as from deliberate attempts to identify accomplished conditions with the general ideal.¹²

The difficulty inherent in this kind of approach is that in actual practice it is very hard to reach agreement on what is end and what is means, what is ideal and what is accomplishment. Ideological statements constantly oscillate between analyticity and syntheticity, between the expression of the meaning of words and the formulation of empirical relationships between the matters denoted by the words. Statements about what

“democracy demands,” what “democracy implies,” what “democracy means” may be interpreted either way: what one party may question as a possible condition of democracy may be taken as an essential element of its concept by the other party.

Lewis seems to find the reasons for the ideological disagreements in a process of a similar kind when he states that although the primary meaning of democracy is clear and simple, controversies over its meaning will arise “because different parties wish to require further characteristics of anything they will allow to be called a democracy, and because they disagree as to what further characteristics are to be so required.”¹³

It may be inferred that a number of the respondents disagree with this view, partly because in actual practice the “strict” definition given by Lewis will turn out to admit of a great variety of interpretations, partly for the reason that a line cannot easily be drawn between a strict primary sense on the one hand and incompatible ideological uses on the other. The contradiction between the positions taken by Jørgensen¹⁴ and Alf Ross¹⁵ goes to show how mutual charges of ideological exploitation can be leveled even at attempts to formulate strict primary meanings.

In a short letter on this matter, Charles L. Stevenson suggests an approach that ought to inspire further elaboration: it merges into one model most of the elements introduced into the discussion of the ambiguity question by other contributors. To Stevenson, current ideological usage of *democracy* is characterized by multidimensional ambiguity. However used, the term covers complex concepts analyzable into a number of factors expressive of indexes or criteria of “democraticity”: the term is never ambiguous or vague in one respect only, but in several. The indeterminacy of its reference can be traced down to a number of reasons: (1) there is no agreement on the criteria to be included in the concept, (2) there is no agreement on the relative weight to be given each criterion, (3) there is no agreed-upon line of demarcation between “democratic” and “nondemocratic” on the theoretically possible scales that may be constructed to determine the degree to which each criterion is fulfilled.

The short formulas suggested by a number of contributors may serve to express opinions on the first point: the choice of criteria to take into account. Formulas emphasizing the political core of meaning will imply concepts based on criteria such as percentage of population having access to in-

fluence on government decisions, degree of independence of popular opinion formation, directness of popular influence, and revocability of mandates and decisions. Other formulas might give further emphasis to less clearly political criteria: equal distribution of economic benefits, equality of social status, degree of legal security, absence of discrimination, and so on. Others again may indicate concepts of an exclusively economic, social, or way-of-life character, thus opposed to the predominantly political concepts. Stevenson's main point, however, is that even if agreement were reached on the choice of criteria, democracy would still be multidimensionally ambiguous because each concrete application of the criteria would be indeterminate and a potential source of violent controversy: What relative weight should be given to each criterion? What scales of measurement or comparison should be chosen to determine the degree of fulfillment of each criterion? Where on each scale should the line be drawn between "democratic" and "nondemocratic"?

Several other contributors have stressed the impossibility of establishing strict lines of demarcation. Field, Horvath,¹⁶ and A. C. Ewing all maintain that in concrete cases no clear-cut distinctions between what is democratic and what is not democratic can be made; it is all a matter of degree, of more or less. Ewing states that "strictly speaking, we should talk, not of democracies, but of a democratic element in states." Statements of this kind must not be construed to imply indifference to democratic ideals. The point has been admirably put by Field: "On the other hand, there is, of course, no reason why we should not continue to speak, roughly, of one state as democratic if it has a considerable degree of democracy, and another as undemocratic if it has very little or hardly any at all, in just the same way as we speak of the weather as warm or cold, though we could not fix an exact point on the thermometer at which one ended and the other began. But we must not fall into the blunder, either, with regard to democracy or the weather, of speaking as if a difference of degree was not important. The phrase 'It's only a difference of degree' is nearly always a mark of political illiteracy."¹⁷

Ross takes an approach closely similar to that of Stevenson: he suggests the construction of a multidimensional "ideal type" concept of democracy that might serve as the basis for comparative assessments of the degrees of "democraticity" achieved in "real types."¹⁸ Whereas Stevenson is mainly

interested in mapping out the various modes of indeterminacy, though, Ross is primarily concerned with the construction of one working concept. Both attempts, however, point to the need for more painstaking analysis of the elements involved and for greater precision in the formulation of theories of their interrelations in ideological argumentation as well as in sociopolitical reality.

The majority of the respondents do not enter into any detailed analysis of these problems. A great number affirm the existence of incompatible usages of democracy and refrain from attempting to single out any one of them as the "correct" one, the "primary" one, or the "strict" one. Among those who take this attitude are Charles Bettelheim,¹⁹ Humayun Kabir,²⁰ Lord Lindsay of Birker,²¹ Perelman,²² Ithiel de Sola Pool,²³ Wilhelm Röpke,²⁴ Paul M. Sweezy,²⁵ George Boas, Ture Nerman, Svend Ranulf, and T. V. Smith. Arthur Lovejoy does not hesitate to characterize democracy as one of the most ambiguous words in current use.

It should be emphasized that respondents who thus affirm the existence of incompatible usages do not thereby deny the possibility that the usages may have common characteristics; but they do not think that these common traits suffice to make up a useful concept of democracy. Neither does the affirmation of equally valid but incompatible usages exclude the justification of proposals for the discontinuation of some of the usages. It does not even preclude the possibility of characterizing one or more of the usages as misuse in the sense of their being potential tools of deceit.

Complications of this kind have to be faced by anyone wishing to obtain clear-cut evidence of ambiguity. The question arises, What practical criteria are used by ideologists to identify cases of ambiguity? The second question in the questionnaire was formulated in the hope that respondents might quote different occurrences of the term *democracy* in historically given ideological texts and state their reasons for referring to one occurrence as an instance of one sense of the word and another occurrence as an instance of a second sense, incompatible with or at least divergent from, the first.

Evidence of Ambiguity

To any analyst interested in the elaboration of reliable procedures for the determination of minute as well as wide differences in usage, answers to the

second question must be said to have been disappointing. The majority of respondents did not think it at all necessary to corroborate their affirmations of ambiguity with arguments from historically given occurrences of democracy: they either stressed the superfluity and futility of searching for evidence for such an obvious fact or they considered the UNESCO inquiry and questionnaire alone sufficient proof of the ambiguity of the word. Although a small number of contributors—Jørgensen,²⁶ McKeon,²⁷ Ross,²⁸ Oliver C. Cox, J. M. Hagopian, Ranulf—took care to list a number of examples of what they considered usages sufficiently divergent to establish ambiguity, the difficulties involved in establishing rigorous criteria for the identification of cases of ambiguity were not explicitly discussed by anyone except David van Dantzig.²⁹ In assessing the relevance of the quoted occurrences to the determination of ambiguities, two points should be kept in mind:

1. The fact that ideologist *A* calls democratic a state that ideologist *B* violently rejects as undemocratic does not exclude the possibility that they both use *democracy* in the same sense; the disagreement may owe to opposing *descriptions* of the state in question. If *A*'s description were established as adequate, they might both agree that the state would fulfill the requirements of a democracy; if *B*'s description were established as adequate, they might agree to reject the state as undemocratic. Violent controversies over *democracy* may consequently be possible without any ambiguity in the concept.
2. Ideologist *A* may restrict his use of *democracy* to one kind of structure or relationship whereas ideologist *B* thinks it justified to use the term to characterize a number of other kinds of structures or relationships. This disagreement does not necessarily establish ambiguity, since a wider and more diluted sense may be constructed that is common to all the structures or relationships thus characterized.

To take an example, Ross seems to believe that sufficient evidence of ambiguity is implied in these four occurrences of *democracy* or close derivatives in everyday use: (1) The Danish state is a democracy. (2) This law, which deprives widows of economic support, is undemocratic. (3) The army ought to be democratized. (4) It is undemocratic not to take one's meals with one's servants.³⁰

Everybody will agree that in these four cases *democracy* is applied to very different kinds of structures or relationships. It may be inferred, however, that several of the respondents, and particularly Jørgensen,³¹ would disagree with the implication that this diversity of application establishes ambiguity; *democracy* may very well be interpreted to have been used in the same—although highly diluted—sense throughout the four examples.

The fact that practically all respondents leave untouched the intricate problems involved in establishing reliable distinctions between usages should surprise no one who is familiar with the present predicament of semantics and the linguistics of ideological discourse. As long as no reliable methods have been developed, it is quite understandable that even the most competent experts in ideology research fail to agree on the sense in which *democracy* has been used by the great ideologists of the past; it may not at all be necessary to explain their disagreements by assumptions of political bias.

Is Democracy Misused?

Analysis of the widespread complaints of ambiguity and looseness leads the way to a general discussion of the causes and justifications of the indignant charges of misuse that are so frequently hurled in all directions in current ideological conflicts.

This is a problem that seems to have attracted the attention of a greater number of respondents than most of the other questions on the questionnaire. A considerable number of contributors try to give explicit formulations of their criteria of misuse. Fairly thorough analyses of concepts of misuse are given by van Dantzig,³² Ducasse,³³ Jørgensen,³⁴ Lewis,³⁵ I. M. Bochenski, and Lovejoy. A comparison of the definitions arrived at will illuminate the terminological difficulties involved in the clarification of ideological controversies.

Ducasse works out a definition of misuse that furnishes a fruitful point of departure: "Misuse of a word is provable if either: (a) A definition of it is agreed upon, but the concrete things to which the word is then applied lack some of the characteristics specified in or implied by the agreed definition. This is misuse in the sense of misapplication. (b) One or more concrete things are agreed upon as being ones to which the word shall be applied, but

the word is then applied to connote one or more characters not in fact possessed by all the concrete things agreed upon as the ones to which the word shall be applied. This is misuse in the sense of mischaracterization.”³⁶

Ducasse is well aware of the difficulties involved in concrete applications of these criteria. The likelihood of agreement on denotation is just as small as the likelihood of agreement on connotation. An essential part of ideological controversies is focused on disagreements on the characters “in fact possessed” or not by such and such “concrete things.” What is the character of the state of affairs in the United States or in Soviet Russia? Charges of misuse in the Ducasse sense would be justifiable only on the assumption of agreement on descriptions of states of affairs of this kind: a highly unrealistic assumption as far as ideological controversies are concerned.

Bochenski introduces several additional elements in his definition of misuse: there is misuse if and only if (a) the word *democracy* is used in a sense *A* in addressing a public that understands it in a sense *B* different from *A*, (b) the public so addressed resents the shift in meaning from *B* to *A*, and (c) the state of affairs referred to by sense *A* is associated with negative value judgments, while the state of affairs referred to by sense *B* is associated with positive value judgments by the public addressed.

The important factors in this definition are the difference between sender use and receiver interpretation, the valuational relevance of the shift in meaning, and the relativity of misuse to the attitudes and moral dispositions of the public addressed. The definition does not require that the public has been actually misled by the shift in meaning: it is enough that it resents the shift.

The definitions introduced by van Dantzig,³⁷ Jørgensen,³⁸ Lewis,³⁹ and Lovejoy all give particular emphasis to the deceit factor: charges of misuse involve moral indignation at attempts to mislead audiences to accept opinions or adopt attitudes on false premises.

Lovejoy formulates a definition of this kind in the following way: “I should define the ‘misuse’ of a term as its use in such a manner that it is certain, or highly probable, that it will not be understood in the same sense by the readers and hearers as by the writers or speakers, but will nevertheless predispose the former to a favorable attitude toward the ideas favored by the latter, or lead to actual confusion of the two senses of the term.”

In this view, the use of value-loaded words with unstable cognitive con-

notations is a powerful tool of attitude influencing and control. The use of words of this character is an integral part of ideological persuasion processes: the very act of branding some usage correct and others misleading is a step in the process. Van Dantzig, Jørgensen, Lewis, James Marshall,⁴⁰ Perelman,⁴¹ Pool,⁴² Ross,⁴³ and the authors of the memorandum submitted by the International Society for Significs have given particular emphasis to this persuasive function of statements on democracy and its "misuse."⁴⁴

Some disagreement seems to exist on the question of whether charges of misuse should be focused on the actual act of using the keyword in a sense different from the one apt to be understood by the audience, or on the deceitful motive of misleading the audience by effecting a shift in meaning. Bochenski seems inclined to the former position. So does Marten ten Hoor, who seems to think that misuse can be charged even when the speaker or writer only fails "to realize that there are other meanings of the term than his own." On the other hand, Jørgensen does not think that unconscious or unintentional misleading of this and similar kinds can be charged as misuse: with the meanings of ideological keywords being as unstable as they are, nobody should be charged with, and thought guilty of, misuse unless a deliberate motive of deceit can be established at the basis of the misleading use of the word in question.⁴⁵ In a similar vein, Horace M. Kallen does not think the divergencies of usage can be traced to any kind of misuse unless "insincerity or malice is attributable to the user."⁴⁶ The difficulties involved in the identification of concrete cases of deceitful or insincere motivation have not, however, been addressed by any of the contributors.

The divergencies of emphasis and scope manifest in the definitions of misuse are reflected in one way or another in the disagreements registered in concrete exemplification.

Lovejoy concludes that in the sense he has given the word, "there appears to be extensive misuse of the word democracy nowadays, particularly in the propaganda of the Soviet Union." A considerable number of other contributors make statements to the same effect, waiving, however, qualifications and reservations of the kind indicated by Lovejoy.

Lefebvre states that democracy is being misused by middle-class politicians who mislead the people by trying to let their bourgeois democracy pass for the ideal democracy—be it from unconscious prejudice or from "a deliberate, cynical determination to bamboozle."⁴⁷

Bochenski stresses the relativity of any justifiable charge of misuse to the language habits and expectations of the group addressed: "Any man using the word democracy in the current Russian sense in addressing a Western audience misuses the word just as much as anyone using it in the Western sense in addressing a Russian audience."

A considerable number of respondents find it hardly justifiable, possible, or meaningful to charge anybody with misuse. Thus, McKeon,⁴⁸ Perelman,⁴⁹ J.W. Gough, Ranulf, and many others emphasize that in the absence of a generally accepted usage taken to define the "correct sense," no misuse can be charged. Others, like Pool,⁵⁰ Quincy Wright,⁵¹ Boas, and G. H. Sabine, urge the conventionality of word-meaning relations and tend to imply that charges of misuse cannot be upheld without inconsistency by those who adopt this view.

It seems plausible to infer, however, that the "misuse" notion repudiated by these two groups of contributors has more in common with the Ducasse concept of misuse than with the Lovejoy concept; they do deny the justification of charges of misuse in the sense of deviation from usage agreed upon as "correct," but they may very well affirm the justification of charges of misuse in the sense of deceitful exploitation of the language habits of the groups addressed. The surface disagreement may thus resolve itself into substantial agreement; this is only one of many cases of this kind that we shall have occasion to note in this survey.

What, then, are the main trends of answers to the question on misuse?

The confusion of terminology and the complex entanglement of issues make most of the answers difficult to compare. Any conclusions on "main trends" will consequently tend to be vague and airy.

First of all, the material at hand gives evidence that charges or denials of "misuse" may have largely divergent meanings even among experts, and that the diversity of meanings is not generally known to them.

Two main meanings of misuse vie with each other in the contributions: one "logical," the other "ethical." In the first sense, there are charges of misapplication and mischaracterization without any necessary moral relevance. In the second sense, there are charges of deceitful manipulations of meanings in processes of persuasion—charges with ethical implications just as pronounced as those applied to lies and fraud.

Practically all the contributors would agree that *democracy* is being mis-

used in the latter sense, but opinions differ in the concrete attribution of guilt: which ideological groups are most addicted to misleading use of the keyword *democracy*.

On the questions of misapplication and mischaracterization, considerable disagreement is evidenced. Some respondents seem to favor the assumption that a definite sense, a “strict,” “correct,” “real” meaning of *democracy* can be established and formulated; all use deviating from this meaning is automatically “misuse.” Other respondents deny the possibility of singling out any such “correct” meaning and the existence of any universally accepted meaning; this they take to imply that no “misuse” of *democracy* is possible or chargeable—at least in the “logical” sense of deviation from “correct” use.

Confronted with this complex and confused picture, the analyst can only conclude that mutual charges of misuse cannot contribute to the clarification of ideological disputes—at least as long as in each case the criteria of misuse adopted are not explicitly formulated and empirical evidence is not proffered to substantiate the assumption that the criteria are fulfilled.

Aspirations Versus Achievements

Why is so much indignation focused on the terminology used in ideological disputes? One of the reasons has been sought in the frustrations experienced through constant misleading use of keywords: this subject has already been dealt with. Another reason may be sought in the frequent confusion of facts and ideals manifest in the use of keywords in ideological defense as well as attack: *democracy*, for example, may oscillate between denoting an established power structure in a society and connoting the ideal limits toward which the society strives to develop. Some of the violence of controversies and some of the indignation at ideological terminology may be traced to the mutual misinterpretations caused by this oscillation:

1. Our own high-pitched proclamations for democracy will tend to be interpreted as out-and-out praise for our status quo by our ideological opponents, whereas we—at least upon closer analysis—would reluctantly concede that our enthusiasm was largely directed toward characteristics so far not realized in our country.

2. Inversely, our criticism of the undemocratic character of an ideologically opposed people is by them interpreted as an attack on their cherished democratic ideals, whereas in fact our criticism was limited to the actual degree of achievement of those ideals in the rival country.

One of the questions⁵² in the UNESCO document focused on misinterpretations of this kind: it asked whether the confusion of ideals with actual conditions was apt to increase the violence of discussions.

The majority of the relatively few who discussed the matter gave affirmative answers to the question, thus Ducasse,⁵³ Horvath,⁵⁴ Jørgensen,⁵⁵ Gough, Heckscher, Nerman, S. V. Puntambekar, Ranulf, Emil J. Walter.

Lovejoy tries to determine in a more precise way the conditions for an increase in ideological violence. His brief remarks may be construed to indicate the following possibilities: (1) if everybody is confused about the meaning of the term, no increase is likely; (2) if one party is aware of the distinctions but believes that the other is trying to mislead by its ambiguous use of the term, increase is likely; (3) if both parties are aware of their equal immunity to terminological misleading, a truce may take place or new strategies develop.

McKeon takes the view that "the violence of controversies seldom results from the confusion of ideals with actual conditions": far more active as causal factors are disagreements on the character of the imperfections and the means to remove them.⁵⁶

The problem of the causes making for violence in ideological disputes is an empirical one that will have to be settled by investigations within psychology, sociology, and political science. The suggestions made in the UNESCO document and the answers given by contributors largely reflect intuitive opinions on the choice of therapeutical procedure in assuaging controversies.

New Uses

All questions that have been raised in order to throw light on the terminological tangles around the keyword *democracy* lead up to one that cannot be

answered without painstaking research: what can historical studies of the development of usage contribute to the clarification of the controversies over the “meanings,” “ambiguities,” and “misuses”?

Most of the contributors did not have time to concern themselves with historical questions. Those who gave them more than passing attention are easily counted: M. M. Bober on the usage of Marx and Engels, McKeon on the relation between conflicts found in classical and modern uses, Stanislaus Ossowski on bourgeois versus socialist uses, Plamenatz on Marxian-Leninist usage, Pool on the development of the split between Western and Eastern usages, Rudolf Schlesinger on Soviet usage, and Sweezy with remarks on the history of socialist usage. The conclusions arrived at in these studies cannot be surveyed in this context.⁵⁷ Suffice it to say that they reveal deep-rooted disagreements, which can be settled only by patient and detached research on a much larger scale than any so far undertaken.

The focal point of interest was, as might have been expected, the historical relationship between the liberalist-Western usage and the communist-Eastern usage. In the UNESCO questionnaire⁵⁸ the question was raised of whether any of the current usages—and it was apparent that the East-West split in usage was being referred to—could be considered “new” in relation, for example, to nineteenth-century or prewar usages. The question was deliberately left vague in order that respondents might be provoked to develop their views at greater length. Even though only a few could take the time to do so, a considerable number of others expressed fairly definite opinions on the subject without taking any great care to document them.

Practically all those who find that new usages have emerged in the twentieth century locate the main innovations in the usage of revolutionary Marxists and particularly in that of the ideologists of the Soviet Union and the popular democracies of Eastern Europe: thus Ross,⁵⁹ Brown, Heckscher, Nerman, Puntambekar, Ranulf. A few also consider usages stressing the social and economic content in general as “new” in relation to nineteenth-century use. It is quite apparent that the charges of innovation are closely correlated to general charges of misuse.

On the other hand, a number of respondents of divergent ideological affiliation take the view that both of the current major usages can claim ample historical justification: thus Lindsay,⁶⁰ McKeon,⁶¹ Stanislaus Ossowski,⁶²

Plamenatz,⁶³ and Paul M. Sweezy.⁶⁴ The position taken by Pool is slightly more sophisticated; both current usages are innovations in relation to the “classical” usage prevalent in Europe and America until about 1848.⁶⁵

The material at hand cannot support any positive conclusions one way or another. Further research is of importance for efforts of clarification and reconciliation, because arguments from the history of usage play active parts in controversies over “right use” and “misuse”: theories of terminological innovation support claims that usages have been deliberately coined in order to confuse and profit from the confusion. Research may show that the development of the use of *democracy* is too complex and many-sided to justify any monopoly of the term in favor of any particular ideological group. It is not, however, the task of the present analysis to conjecture what results further research will yield.

Common Characteristics

As a direct sequel to the question on the historical basis of current usages, the UNESCO questionnaire takes up for scrutiny the widespread opinion that the meaning of *democracy* cannot be understood in abstracto, but only in its historical relations to concrete social and political structures that have been classed as “kinds” of democracy. The question was asked whether these historical structures have any characteristics in common that make them democracies.⁶⁶

Answers to this question present a muddled picture because it is rarely clear exactly which of the many interpretations of the question the respondent has focused on.

Everybody agrees that *democracy* is not a proper name for one unique structure but a term that can be applied to structures that, although similar in a number of features, may well differ to the point of incompatibility in others. There is disagreement, however, on the range and extent of application of the term; thus, some do not think it is properly used in the phrase *Athenian democracy*, others would not class “bourgeois democracy” among democracies, and still others think that “Soviet democracy” is a misnomer, since in their opinion the Soviet regime is a dictatorship.⁶⁷

The majority of answers, however, express the opinion that all historically given democracies have common characteristics. It is true that these

characteristics are not always held to be common to all structures that have ever been called democratic but only to those that have "properly" been so called. Thus, Lewis states: "Insofar as all are truly democracies, they have in common two characteristics: (1) sovereignty is vested in the general will of the people, and all of them equally; (2) the government is such that it is a rule of laws and not of men."⁶⁸

Most of those who affirm the existence of common characteristics do not make any such reservations, however. Nevertheless, their formulations of the characteristics reveal very wide differences of scope and emphasis.

To James K. Feibleman, the different "kinds" of democracy have nothing in common but a common misuse of the term *democracy*. To Max Nomad, their only common characteristic is the fact that they all claim to be representative of the will of the people. Other contributors are more specific in their formulations of common characteristics. Charles Bettelheim takes the view that, although each democracy has to be judged in its historical context, they have at least one characteristic in common: that each, at its particular stage in history, represents an attempt to reduce to a minimum the scope and intensity of social coercion. Kabir finds a common characteristic to "all the different political systems and ideologies which we call democratic" in "the urge to establish an equivalence if not an identity" between duties and rights.⁶⁹ Gough finds that there are common exclusions: hereditary privileges, racial discriminations, and so on. McKeon⁷⁰ goes into further detail: "All democracies have in common (1) political institutions designed to make effective the will of the people in the regulation of the common life, without discrimination, of all the people, and (2) provisions in the organization of these institutions to protect against arbitrary action, by such devices as the protection of human rights and the promulgation of a rule of law."

The problem of whether the structures referred to by current Western usages have anything in common with the structures referred to by current Eastern usages is dealt with at greater length than any other.

Ossowski⁷¹ emphasizes the historical community of values that exists between the two conceptions. Similar views are taken by Horvath,⁷² Jørgensen,⁷³ Marvin Farber, and Arnold J. Lien. The material does not, however, furnish any detailed analysis of the individual characteristics thus deemed common to the two kinds of structure. There is approximate unanimity that such common traits exist, but the ones on which there is most

widespread agreement are hardly such as to affect the opposition of valuational attitudes toward the two kinds of structures.

Concluding Remarks

What kind of lessons can we learn from the answers to the terminologically centered first part of the questionnaire?

First of all, that there are deep-rooted disagreements concerning matters on which the common man cannot expect to be able to make up his own mind: on the technicalities of semantics, in the descriptions of divergencies of usage, on the history of the semantical fluctuations in the term *democracy*.

Second, that these disagreements among experts in a large number of cases reflect divergencies of ideological bias. There is a manifest tendency to present one's own views as the only ones worthy of serious consideration, whereas those of opponents are more often than not found to contain misrepresentations, distortions, and even deliberate fraud. There is a tendency to picture one's own efforts as serving the purposes of clarification only, while the tenets set forth by ideological opponents are primarily treated as instruments of persuasion adapted to political tactics. There is a tendency to use history as a tool of ideological justification and to affirm the validity of conclusions from historical study in ways more extreme and absolute than are warranted by the meager empirical evidence at hand.

Notable exceptions are to be found in the material, but this is a report on general trends.

The lesson of all this lies in the realization that knowledge of ideological processes is still so little developed that standardized oversimplifications of controversial issues can win widespread acceptance under the shelter of scholarly authority.

The answers to the questions on the semantics of *democracy* furnish excellent illustrations of this predicament: they show how even outstanding experts are apt to treat complex historical, linguistic, and philosophical issues as if there were only a choice between a true account and a definite analysis on the one hand and a heap of crude misrepresentations and deliberate distortions on the other.

Intense analysis and painstaking empirical studies may, if conducted by researchers free of direct ideological entanglements, prove a powerful

weapon against oversimplification and black-white thinking and thus make it harder to appeal to violence on false pretensions. The urgency of an expansion and intensification of ideology research is clearly manifested in the material on the first part of the UNESCO questionnaire.

Political and Other Democracies

The Lincoln Formula

Having in its first part focused on the general linguistic problems involved in current ideological use of the term *democracy*, the UNESCO questionnaire in its second and third parts proceeded to detailed analyses of two of the fundamental issues that were assumed to lie at the root of the intense controversies on terminology: (1) the problem of the relationship between political "democratization" and economic and social "democratization," dealt with in part B of the questionnaire;⁷⁴ and (2) the problem of the right of opposition and the limits of toleration within states to be classed as democracies, dealt with in part C.⁷⁵

None of the respondents has directly criticized this procedure. It is true that there is wide disagreement on the relative emphasis to be given the one and the other cluster of problems, but it seems safe to infer that there is general agreement that both are pivotal issues in the controversies raging in the contemporary world. An extensive survey of current ideological literature seemed to point to the same conclusion.

In its details, however, the UNESCO procedure has occasionally aroused emphatic criticism.

In the second part of the questionnaire, the Gettysburg "of . . . by . . . for" formula was chosen as a tentative point of departure for the analysis of current meanings of *democracy*: provocative interpretations of the three famous prepositions were given, and scholars and experts were asked to work out their comments.⁷⁶

A small but vocal number of respondents resented this choice of approach. Thus, Boas does not think that anything can be cleared up by starting out from a formula that "had an immense emotional force for Americans," but an emotional force that "was in inverse ratio to the clarity of its meaning." William E. Hocking remarks that "Lincoln was not professing to define democracy in his 'of . . . for . . . by' phrase; those who turn it into a

definition must bear the blame of wholly superfluous confusion." Lewis says: "I should interpret Lincoln's Gettysburg address as a tribute to the dead, and not as a political document."⁷⁷

Schlesinger is convinced that the procedure chosen is a highly misleading one as an approach to the analysis of the differences between the Western and the Soviet conceptions of democracy: these differences cannot by any artifice of interpretation be reduced to differences of emphasis on the elements of the Lincoln formula.⁷⁸

However all this may be, the Lincoln formula was chosen as a point of departure because it is still the central slogan of all groups professing their allegiance to "democracy." It has not only preserved its enormous emotional force with Americans and with Westerners in general; it is also constantly used as a formula for defining democracy by ideologists of the Soviet Union and the eastern European states.⁷⁹ In terms of analysis, this means that an inquiry need not start from the mere word *democracy* as a common denominator but can take its departure from the Lincoln formula and proceed to an analysis of the divergencies manifest in interpretations of its elements.

The interpretations suggested in the questionnaire for the *of*, *by*, and *for* relations provoked a considerable amount of disagreement. On closer analysis, however, this disagreement may be seen to be more apparent than real. Opinions differ because they are not answers to the same questions. Part of the discord undoubtedly owes to the vagueness of reference of the question put to the experts: Does it ask for the meaning Lincoln himself may be presumed to have attached to his words? Or does it ask for a general interpretation of how the American public of his time understood the words? Or again, does it ask for the meanings the words may be conjectured to have for the different groups appealing to them in the present age? Distinctions along these lines are generally ignored by the respondents; it is apparent that formulations of the "real" meaning of those historical words are sensed to be of vital importance in ideological persuasion.

In the questionnaire, the *of* relation was provocatively interpreted to indicate "the obedience of the people to the government."

Surprisingly, the majority of respondents seems to have agreed to this interpretation, although rather few state their view on this point explicitly. It seems safe to infer, however, that the word obedience has been taken in a very weak sense by those who have thus agreed to the interpretation sug-

gested: “of the people” is simply taken to mean that what is being governed is the people, that the people are the object of government.

Those who thus accept the “obedience” interpretation of the *of* clause do not thereby take it to express any necessary criterion to be fulfilled by regimes that are to be classed as democracies.⁸⁰ Ross is very emphatic on this point: “The preposition *of* would not seem to indicate anything beyond the bare fact that a government exists; any government is a government of the people. Who else should it govern?”⁸¹

Exactly the same argument is used by Bober,⁸² Perelman,⁸³ and Schlesinger⁸⁴ *against* the interpretation suggested in the questionnaire: if the *of* relation were only to indicate the fact of obedience, it could not serve to distinguish democratic from nondemocratic regimes. Against the diluted “obedience” interpretation, therefore, are pitted interpretations that make of an important index of “democraticity.” Perelman—and with him ten Hoor—takes the *of* clause to indicate that the people are the source of the government’s power, while Bober—and with him Max Nomad—takes the closely related view that the *of* clause means that the government is such that the people desire it and have affection for it. The difficulty with interpretations of this kind is that they tend to make *of* nearly indistinguishable from *by*; this point is particularly stressed by Lewis.⁸⁵

The “obedience” interpretation of the *of* relation may, however, be construed in the more positive sense that the decisions of government are regularly conformed to by the people. Aimé Patri makes a point of stressing this construction by analyzing the distinction between democracy and anarchy.⁸⁶ Sweezy, on the other hand, emphatically denounces the “obedience” interpretation as an attempt to impute to Lincoln a conservative attitude of admiration for “law and order”; instead, Sweezy maintains that Lincoln by “of the people” must have meant “belonging to the people,” emanating from the people, forming an inseparable part of the people.⁸⁷ Commenting on this interpretation of Sweezy’s, Ducasse expresses serious doubt about whether this was what Lincoln meant or his audience understood him to mean.⁸⁸ It may be questioned whether any such search for “real meanings” can contribute to the clarification of the issues involved; it is more important to analyze the persuasive function of imputations of meanings to authority-loaded statements.

In the cases of *by* and *for*, there is little disagreement on the general in-

terpretation of the relations they indicate between people and government; what is vigorously debated is whether both *for* and *by* should count in the determination of what is and what is not democratic. Opinions are almost evenly divided in the material: one group of respondents gives exclusive emphasis to *by* as the essential criterion; another group stresses the equal importance of *by* and *for* in the determination of *democraticity*. Attitudes and arguments on this matter are, however, so closely correlated to those registered on the question of “narrow” versus “broad” usage of democracy that separate treatment does not seem called for.

The “Narrow” Versus the “Broad” Usage

However vague, however laden with emotional associations, the Lincoln formula opens the door to further scrutiny of the role of the keyword *democracy* in current ideological struggles: What is the nature of the disagreements over the relations between the *by* element and the *for* element in the formula? What part do these disagreements play in the fundamental political oppositions of our age?

The division of opinion manifest in our material between adherents of exclusive “by the people” criteria and adherents of inclusive “by *and* for the people” criteria of democraticity reflects an issue of old standing in the history of political argumentation. A great variety of formulations—from terse sloganized catchphrases to complex systems of philosophical reasoning—have been devised to express what is taken to be the crux and essence of this opposition. Formulations have largely varied with political affiliations and ideological proclivities, and rare indeed are the cases in which opponents have been able to agree on any joint description of the opposition between them. In the UNESCO inquiry, this presented a dilemma that had to be faced squarely: the choice was between producing a formula so complicated and studded with reservations as to make it unreadable and indifferent and setting forth a cruder one at the risk of accusations of ideological bias. In the end, a compromise was devised: the opposition was tentatively described as one between a democracy concept “designating methods of decision making” only and a democracy concept “designating conditions and methods as well as results of decision making.” The former concept was then labeled a narrow political one; the latter, a broad socioeconomic one.

Objections to this formulation of the dichotomy took different forms. To several contributors (McKeon,⁸⁹ Ross,⁹⁰ Christopher Hollis, and Walter), the formulation appeared ideologically biased in favor of one camp—the communist camp. Not only does the term *narrow* have derogatory connotations while *broad* has laudatory ones, but the entire formulation seems calculated to leave the impression that the criteria involved in the one concept are engulfed without impairment in the larger concept—an impression the one camp has a vested interest in spreading, the other in combating and stamping out.

In assessing these accusations we must bear in mind that the formulation was set forth in an attempt to urge opinions on central divergencies in trends of argumentation and persuasive appeals, not on differences in application and achievement. It might well be questioned—and the material shows that it has been—whether the opposition thus formulated is the fundamental one in the ideological conflict currently raging between West and East; this, however, is a matter that will be dealt with in a later section.⁹¹ The opposition formulated reflects one of the many aspects of the general disagreement and deserves scrupulous analysis before the inquiry proceeds to further clarification.

A great deal of the debate revolves around the terminological question “Should *democracy* be used to cover the ‘narrow’ or the ‘broad’ concept?”⁹²

A small number of respondents strongly resented this question. There is no “should” about it, says Ducasse.⁹³ The question poses a pseudo-problem, states Sweezy.⁹⁴ The same position is taken by Lewis.⁹⁵ Bochenski is even more explicit: “All questions asking how a word *ought to be* used are without scientific meaning and cannot be answered. All that can be said is how in fact a term is being used by a [logical] class of men k.”

Nevertheless, the overwhelming majority of respondents does not hesitate to announce how *democracy* should be used; a large group favors the narrow use, but an almost equally large group comes out for the broad use. How are we to explain this striking opposition of reactions to the terminological question? A fuller restatement of the positions taken will show that the opposition is very far from being irreconcilable; the issue seems to turn on the interpretation of *should*, the minority taking it in an absolutistic sense close to its use in moral discourse, the majority in the pragmatic sense of recommendation and advice. The two positions can be outlined as follows:

1. To legislate, moralize, or dictate in matters of terminology is futile and nonsensical. There is no usage such that it *intrinsically* should or

should not be followed. There is no court sanctioning the observation of terminological norms. It is futile to press for terminological uniformity if there are groups that have vested interests in the continuation of existing usages, however heterogeneous. The ethos of science and the honesty of communication demand that current usages be carefully kept apart and specifically labeled; there is no justification for terminological *Gleichschaltung*.

2. It makes sense to recommend or discourage usages; terminological advice can be based on considerations of economy and efficiency of communication, stabilization of expectations, avoidance of frustrations, and so forth, and is just as open to rational argument as most advice on problems of interpersonal behavior. Moreover, attempts to influence and change the usage of others are very far from futile; they make up a normal element in communication processes.

In the material under scrutiny, the arguments used to justify preferences and recommendations in the choice between the two usages of *democracy* can be classified as follows:

- 2.1. If two usages of the same term are found side by side and the one covers a more precise concept, the other a more confused one, the former usage is to be preferred and recommended for general adoption while the latter is to be rejected and its further application discouraged.
- 2.2. If the one is already established in technical discourse among scholars and experts and has been found to serve a useful cognitive purpose, whereas the other only prevails in popular parlance and has never been adopted in any field of systematically organized knowledge, the former is to be preferred for general application while the latter is to be eradicated.
- 2.3. If the one usage defines a concept bringing together closely interdependent elements sharing significant features whereas the other isolates one or a few of these elements from the others and thus diverts attention from what they have in common, there is reason to adopt the former usage and reject the latter.

2.4. If a usage can claim a representative history judged by the length of time since its emergence and by the authoritative status of its users, its continuation is justified.

2.5. If a term is heavily loaded with positive emotional associations, any attempt to use it in any but its “strict,” “original” sense should be banned; the newly coined usage serves as an ideological tool of deceitful persuasion by effecting a transfer of favorable attitudes evoked by the term to objects, conditions, and actions that do not deserve them.

None of these arguments are, of course, very clear-cut: there is disagreement not only over their tenability but even more so over the relevance of their application in concrete cases. In the answers to the terminological question on *democracy*, arguments 2.1 and 2.2 are almost invariably used to justify preference for or recommendation of the “narrow” usage; argument 2.3 usually serves the cause of the “broad” usage; and arguments 2.4 and 2.5 are just as often used in favor of the one as the other usage.

Argument 2.5 is naturally the most malleable of all. To a number of those who are convinced that the narrow use is the “strict” and “original” one, all broader uses stand condemned as cunning attempts to usurp the traditional goodwill acquired by the term *democracy*. Adherents of the broader usages do not hesitate to return the charge; the narrow usage serves propagandistic purposes insofar as it bolsters attitudes of complacency with the status quo of the political setup and impedes the progress of reforms in socioeconomic conditions.

Jørgensen, accordingly, rules out arguments of the 2.5 group as cutting both ways: “There is no reason why the proponents of the narrow political concept should have a monopoly on the positive charge that for a long time already has made *democracy* a most valuable tool of persuasion. By reserving the word for the narrow concept they exploit for their own purposes the traditional goodwill it has acquired. Their reproach that the broad use is propagandistic can be countered by the argument that the narrow use is just as propagandistic in its effects.”⁹⁶

On the whole, when debated on a level of philosophical detachment, the opposition between “narrow” users and “broad” users does not seem so trenchant as is generally assumed. Even the staunchest protagonist of the

strict technical use will admit that as used by a larger public the word will always tend to evoke associations and expectations far beyond what would be warranted by its definition as a narrow concept. Inversely, the advocate of the broad usage will generally concede that within limited contexts the narrow usage may have its cognitive advantages. Both will admit that usage preferences will depend on circumstances; factors such as audience expectations, fields of application, and purposes of communication will all have to be taken into account. The material at hand does not give reasons to believe in the existence of irreconcilable antagonisms on the terminological issues; the majority seems to attach importance to them less for their own sake than as reflections of the more deep-rooted theoretical and normative conflicts.

Mediating efforts are not lacking in the material. A number of respondents think that both usages can claim ample justification: thus Horvath,⁹⁷ H. A. Logemann,⁹⁸ Ossowski,⁹⁹ Sweezy,¹⁰⁰ Eisenmann, Farber, Herbert W. Schneider, and several others. They do not think that there is any reason to give the one usage preference over the other as far as cognitive usefulness is concerned. Neither do they think that appeals to history can tilt the scale one way or the other. There is no sense in monopolizing the term for one of the established concepts.

This does not mean that they advocate obedient conformity to the terminological status quo, but they take the view that the growing public awareness of ambiguities and divergencies in usage will gradually force ideologists and opinion leaders to refine their terminology; the isolated use of *democracy* will decrease and a differentiation of conceptual expressions will take place through specification by adjectives and indexes and through explication by more complex formulas. *Democracy* will then gradually cease to have a cognitive meaning of its own: it will only serve as an element in longer phrases designating the different concepts it has come to suggest.

This process is already well under way in both of the major ideological camps. Ossowski is particularly emphatic on this point. In his view, *Western democracy* and *popular democracy* are both integrated terms that have meanings independent of what *democracy* used in isolation may mean; the two do not designate species of some genus because the sense of the element *democracy* varies with the adjectives prefixed to it.¹⁰¹

A process of this kind will naturally lead to differentiations far more refined than the one suggested in the UNESCO questionnaire between a

“narrow” and a “broad” concept. The very formulation given for the broad concept invites further differentiation. Concepts of *conditions* of decision making may be differentiated from concepts of *methods*. Concepts of *methods* of decision making may again be differentiated from concepts of *contents*.¹⁰² A number of “narrow” concepts may thus be constructed and in their turn combined into “broad” concepts differentiated by the relative weight given to the criteria they engulf. This analytical process will, however, automatically lead away from considerations of terminological niceties to inquiries into the actual and potential empirical relationships between the factors isolated or combined in the concepts thus elaborated.

Political Democracy and Social Democracy Compared

The relations singled out for scrutiny in the UNESCO questionnaire were (1) those between conditions of decision making and methods of decision making, and (2) those between methods of decision making and contents of decisions made.

A number of respondents emphasize the practical and theoretical difficulties of keeping apart aspects that are so closely interrelated in one continuous process, but the majority of the contributors seem to agree on the heuristic value of the distinction made among conditions, methods, and contents of decision making.¹⁰³

All three factors play important parts in current ideological use of democracy. Schematically, their relations may be outlined in this way:

Does “democracy” require the existence of established methods for popular control of governmental decision making? It may be inferred that practically all respondents answer yes to this question.

Does “democracy” require the existence of conditions making for independence of opinion formation affecting the efficiency of these methods of popular control? To this, most respondents answer yes, but there is pronounced disagreement on the nature and scope of the conditions thus required.

Does “democracy” require limitations of the contents that the popularly controlled decisions may have? On this question, there is widespread controversy and no definite conclusions to be drawn from the material.

The methods requirement takes the form of a definitional statement; factual disagreements on this point concern institutional devices developed to ensure maximal efficiency of control.

The conditions requirements more often than not take the form of factual statements; disagreements concern empirical relations between economic, social, educational, communicational conditions on the one hand and the efficiency of popular control on the other.

The contents requirements express value statements more than anything else; disagreements concern the purposes that popular control ought to serve, and opinions vary from the acceptance as “democratic” of any decision the people may make—be it even directly suicidal—to the restriction of “democratically” acceptable decision contents to full conformity with an a priori theory of what the real interests and the real goals of the people are.

How do the terms *political democracy* and *social democracy* stand in relation to the distinctions thus made?

Most of the respondents seem to hold that *political democracy* is the more precise term of the two. It is not held to coincide, however, with the “narrow” methods concept outlined in the questionnaire; it is broader because it implies criteria that fall under the conditions requirements. Among such criteria, the material gives prominence to conditions roughly indicated by phrases such as “absence of intimidation,” “freedom of expression,” and “open access to information on public issues.” There seems to be practical agreement in the material that regimes not fulfilling criteria of these kinds should not be called political democracies; the trouble is that there is little agreement on the interpretations of these criteria in concrete contexts.

Social democracy is generally held to be much vaguer in its connotations. Interpretations differ markedly in the material under scrutiny. To some, the term simply signifies an organization of society establishing maximal equality of status in all respects: distribution of power, authority, respect, prestige, economic benefits, legal security, education, and so on. Others do not include equal distribution of power in the connotation of the term, thus contrasting it to political democracy. Still others do not include the economic element, thus distinguishing “social” from “economic” democracy. A considerable number leave out the emphasis on uniform equality and equate “social democracy” with “the general welfare of the

people," "the process of raising the economic and cultural level of the masses," and so on. Some explicitly identify it with government for the people, demophilia, as contrasted with democratia, government by the people.¹⁰⁴ Another potent source of ambiguity is introduced when the term *social democracy* is not only used to define goals to be attained but is focused on sets of means advocated for their attainment; thus, a considerable number of respondents identify the meaning of the term with measures and policies like socialization of the means of production, abolition of private property, and governmental planning and regulation of economic life.¹⁰⁵

All these divergencies in usage result in a confusion of issues and a mingling of problems that make systematic comparison of expressed opinions highly difficult. So complex and varied are the relations of facts at the bottom of ideological controversies that formulations of questions and answers in terms of general catchphrases and stereotypes can only obscure and jumble up the issues. Clarification can be achieved only through a painstaking process of differentiation, specification, and explication.

A number of respondents stress this point in their comments on the two questions raised on the mutual relationship between political democracy and social democracy.¹⁰⁶ Thus, Lewis finds the questions unanswerable because of the ambiguities of the terms to be related; to him, *social democracy* may mean economic equalitarianism or its very opposite, all depending on the general will of the people and the context in which it has to act.¹⁰⁷

Some respondents have tried to formulate in their own manner what they consider the fundamental problems involved in the vague opposition of "political" and "social" democracy. In this way they have made a more definite contribution to clarification than those who have contented themselves with setting forth their responses without making explicit which interpretation of the questions they are answering. The UNESCO questions were deliberately stated too vaguely and generally to admit of straight answers: the experts consulted were thereby urged to reformulate the problems in their own ways and thus further the clarification process by attacking them from different angles.¹⁰⁸

Explicit reformulations and implicit interpretations have largely revolved around two fundamental questions: (1) the relations of conditions to

methods of decision making, and (2) the relations of methods to contents of decision making.

In a first approximation, there may be said to be widespread though implicit agreement that these problems may be expressed in formulations more or less equipollent with the following: (1) Under what conditions—social, economic, educational, communicational—will methods of popular control of governmental decision making function efficiently? (2) What methods of control of decision making are most likely to ensure the formation of governmental decision contents aiming at bringing about optimal conditions of demand satisfaction for the people?

Answers to questions along these lines diverge partly because each element in their formulation is differently interpreted in different contexts, partly because different theories are held about the actual empirical relationships between the sets of facts denoted, and partly because different value orientations lead respondents to focus on different aspects of the problem clusters outlined.

Question 1 leads most of the respondents to tackle the problem of the economic foundations of democracy. Can the masses of the people express their will adequately in a social organization based on private ownership of the means of production? Can the masses control governmental decision making if all economic power is vested in the higher bureaucracy of the state? Can the people get to know what its interests are and find adequate and efficient expression for them if all instruments of large-scale opinion formation are controlled by groups bent on keeping the masses in a state of submissive obedience?

Major disagreements are evidenced in answers to questions in this category. The discords are partly focused on the definition of what constitutes “adequate control of decision making,” partly on hypotheses on the conditions of independent opinion formation, partly on the criteria to be postulated for the determination of the “real” interests of the people.

Question 2 has absorbed the attention of even more contributors: it raises one of the pivotal problems in current ideological controversies. In more concrete terms it might be formulated as follows: if the entire adult population is given access to control of public decision making in a society characterized by trenchant inequalities in social and economic status, will the contents of the thus controlled decisions be such that they will make

for a leveling out of inequalities and a general increase in the welfare of the people?

It is very difficult to give brief formulations of this problem without running the risk of accusations of ideological bias. It is even more difficult to report objectively on trends in the responses registered. Tentatively, two trends may be distinguished and roughly formulated in this way:

2.1. Popular control of decision making must be expected to lead to increased and generalized welfare because the people can be assumed to perform the control in the interest of the satisfaction of its own demands; any social reorganization for the improvement of general welfare must meet the test of actual preferences in the people and cannot be based on theoretical and a priori conceptions of what is "really" the optimal state of society and the "only" means to establish it.

2.2. Popular control of decision making does not necessarily lead to a state of general welfare because in a society characterized by economic inequalities the opinions and attitudes of the people are not developed to the point of conformity with its interests: a social reorganization is necessary to create the conditions that alone can make for efficient and adequate popular control of decision making.

In their extremes, these two trends may be exemplified for the first line of argumentation by Field's contribution, and for the second by Lefebvre's.

Field concludes his analysis of the problem by announcing as his choice for a platform slogan for democracy not the hackneyed Lincolnian formula but the words of William Jennings Bryan: "The people have a right to make their own mistakes."¹⁰⁹

Lefebvre develops the distinction between form and content to the point where he opposes to the Marxist definition of democracy by *the interests of the people*, a *formal* democracy "based on the body of opinions, more or less transient, more or less variable, and more or less well founded of the individuals constituting the majority."¹¹⁰

"It is not impossible that, at a particular time, one man, standing alone or almost alone, may be the true representative of a people or of all the peoples, and the whole of mankind. . . . May it not seem that Lenin, in

1914 . . . , stood for the true understanding of the historical situation, in spite of his isolation? That he thus became an active factor in that situation, grasped the content, the real significance and the underlying trend of history and was working *for* the people.”¹¹¹

This deep-rooted opposition in outlook and value orientation has been given thorough attention by a number of contributors. Eric Weil builds up his entire essay around this dichotomy.¹¹² Bettelheim,¹¹³ Ducasse,¹¹⁴ Lindsay,¹¹⁵ McKeon,¹¹⁶ Patri,¹¹⁷ Plamenatz,¹¹⁸ Pool,¹¹⁹ and Eisenmann all contribute significantly to its clarification.

The opposition owes partly to differences in *expectations* of results from the institution of democratic methods of decision making. General hypotheses about the relationships—causal or otherwise—between methods and decision contents can scarcely be formulated or made testable: there are an infinity of factors to take into account, not the least of which are such relative intangibles as personality traits and general characteristics of behavior and attitudes in the peoples in question. In addition, the opposition must be seen in the light of conflicting value orientations resulting, on the one hand, from actual satisfaction with and support of the social order in question and, on the other, from actual impatience and discontent with the same social order. Supporters of the existing order may be presumed to be interested in preserving actual methods of decision making in the hope that popular control will not lead to radical social changes, at least not in aspects important to them. Opponents of the existing order will tend to be impatient with the working of the actual method of decision making and attribute its failure to the immaturity of public opinion preserved through centralized control of opinion-molding institutions. It is important to emphasize, however, that both sides in the opposition profess unswerving allegiance to democracy as a method of popular control of and participation in governmental decision making; the central difference lies in their opposed evaluations of the actual conditions under which the method is functioning. The analysis of question 2 thus leads back to renewed scrutiny of question 1: under what conditions will methods of popular control work efficiently?

This leads us straight on to an inquiry into the crucial differences between the ideological systems that stand in most direct opposition in current controversies: the Eastern and the Western.

The Crucial Differences

The UNESCO questionnaire was deliberately focused on the ideological opposition that makes up the greatest potential threat to world understanding and enduring peace: the opposition between the social and political views taken in western Europe and the western hemisphere, and the social and political views taken in eastern Europe, the Soviet Union, and communist China. There is no way of making this opposition simple and clear-cut; the actual variety of opinions and outlooks is too great in both camps. There tends, however, to be general agreement that the power conflict between the two groups of people stands in direct, if not always clear, correlation to a more deeply rooted opposition of ideological principles, theories, and value systems. A main purpose of the UNESCO inquiry was to encourage ideological experts to formulate their views of this opposition and assess the possibilities of its reconciliation and peaceful solution.

Formulations of the opposition show striking variations. On the level of mutual vilification, both camps have formulated their difference as one between "real" democracy and "mock democratic forms" masking the ruthless dictatorship of one group over the rest of the people. On a more reflective level, the opposition has variously been characterized as one between a "libertarian" and an "authoritarian" democracy, between Girondism and Jacobinism, bourgeois liberty and socialist equality, capitalist exploitation and working-class liberation, individualism and collectivism, an open society and a closed society, and so on. The amassing of slogans and stereotypes of these kinds has not contributed much to clarification. Fortunately, the material collected occasionally penetrates deeper into the analysis of the problems raised by the existence of this opposition.

To connect the discussion with the distinctions introduced in the analysis of meanings of democracy, the questionnaire took off from the "majority rule"—"majority interest" formulation coined by Bertrand Russell.¹²⁰ This seems to have been a fortunate choice because reactions proved very varied and threw light on the problem from many different angles.

Most of the respondents seem to accept the Russell formulation as a first approximation to a description of the central difference; among these respondents are undoubtedly ideologists from both camps. Evidently, the formulation is not taken as offering more than a rough indication of where

to look for the decisive difference; a one-sentence dictum could scarcely achieve much more. Those, therefore, who set forth accusations of oversimplification and distortion of issues seem to have overlooked the limited pretensions of the formulation.

However, all the attempts at closer scrutiny that are found in our material reveal the need for further differentiation and greater preciseness in the formulation of the opposition of ideologies. It may be that the Western ideology can be said to emphasize the “by the people” aspect, but it is important to specify in what sense this is true, because there seem to be other senses that make Eastern ideologists just as firmly adherents of “government by the people.” Inversely, it may be plausible to hold that Eastern ideology gives predominant emphasis to the *for* element, but it is highly important to distinguish the sense in which this is true from the sense in which Western ideologists may be said to advocate “government for the people.”

The need for more elaborate distinctions is particularly urged by G. A. Borgese,¹²¹ McKeon,¹²² Ossowski,¹²³ Pool,¹²⁴ Schlesinger,¹²⁵ and Sweezy.¹²⁶

Sweezy takes sharp issue with the identification of Western democracy with “majority rule.” Quite to the contrary, it seems to him to mean “the inviolability of the rights and privileges of minorities,” in concreto, the privileges of the propertied classes. Ducasse,¹²⁷ Field,¹²⁸ and Ewing take him strongly to task for this statement. It seems that he would have made a stronger case for himself if, instead of imputing to his opponents meanings they would scarcely acknowledge as theirs, he had elaborated the hypothesis that under Western conditions of economic equality the majority of the people are unable to make their demands count despite the existence of universal suffrage rights and normal election procedures.

On the other hand, Sweezy accepts the Russellian definition of Russian democracy as rule in the interests of the people and amplifies it by stating as the essence of the Soviet conception “the elevation of the economic and cultural level of the masses”; but he adds, very significantly: “and their active involvement in public affairs.” In this way, the Soviet conception is made to appear to give emphasis to the “by the people” element, too. Bettelheim,¹²⁹ Lefebvre,¹³⁰ and Ladislaus Rieger¹³¹ all concur in this analysis. Schlesinger is particularly concerned with developing the point. In his view, the Bertrand Russell formulation of the East-West opposition over

democracy is dangerously misleading.¹³² In a lengthy and well-documented analysis of Soviet ideological texts, he develops the view that mass participation in the formation and execution of public decision making and not just the raising of the standard of living of the masses is the essence of Soviet democracy. He expressly rejects the assumption that it is "government for the people" in the sense of concentration on mass consumption; improvement in economic conditions is not deemed an end in itself, but an indispensable means of bringing about the "active involvement" of the masses in public affairs.¹³³

Inversely, a number of respondents resent the implication that Western democracy is only by the people, not for the people; in their view, the democracies are much more for the people since the general welfare developed has come about through deliberate action by the people. The by-for dichotomy is rejected as unrealistic and invalid by several contributors. Thus, Borgese says: "[I]t is impossible to conceive 'a rule of the majority' in which that rule is or may be deliberately or consciously at variance with the 'interests of the majority.' Such a democracy should be defined as the government of the people by the people against the people. . . . If 'democracies' of this kind were extant, there would be a point in Gromyko's definition of his own 'people's democracy.' Our purpose, he said, is the well-being of the people, 'whether they like it or not.'"¹³⁴

Argumentation along these lines raises anew the two problems outlined in a previous section: (1) Under what conditions can the people be expected to act politically in open consciousness of its "real interests"? (2) Can the "real interests" of the people be determined theoretically prior to observations of its actual preferences and overt choices?

Scrutinizing the philosophical implications of these problems, McKeon arrives at the conclusion that the West-East opposition cannot possibly be formulated in terms of a by-for dichotomy. "The broader opposition is between the use of factions and classes as a safeguard of the common good, and the appeal to wisdom or knowledge for the discrimination of the true good from the common good. . . . The one conception of democracy . . . would provide for social, economic, and political decisions, and even for the use of science in arriving at these decisions, within a frame that makes possible the resolution of differences, according to the preference of the majority, on the assumption that no one has infallible

scientific knowledge in any sphere and that the progress of science no less than the equitable resolution of differences depends on the toleration of diversity. The other would provide for social, economic, and political decisions through the application of the principles of dialectical materialism in resolution of problems in these spheres by the party of the proletariat, on the assumption that the method of dialectical materialism is the true scientific method and that not even all workers (since they have been demoralized by capitalism), much less the capitalists and those who incline toward capitalism, can contribute to the decision."¹³⁵

To McKeon, the focus of controversy is thus on the cognitive status of political propositions: Are they invariably fallible expressions of the conflicting or converging interests of the groups that make up the people, or can they be made into infallible scientific statements of measures and policy for the attainment of a state of society in true harmony with historical laws of development? Can, in general, political problems be solved by a science of society capable of establishing true statements that everybody will have to accept?

The discussion is thus transferred from the realm of sociopolitical relations dealt with in part B of the questionnaire to the problems taken up in part C: can scientific knowledge of social processes be developed to the point where an end of opposition to and criticism of the conclusions to which it leads can be justified?

This problem is discussed in an illuminating way in the comments made by Ducasse¹³⁶ and Field¹³⁷ on the position taken by Sweezy.¹³⁸ the discussion of democracy is clearly seen to open a highway toward the clarification of basic issues in contemporary epistemology and methodology.

Marshall and Pool¹³⁹ develop views on the East-West opposition closely related to those taken by McKeon, Ducasse, and Field; but, instead of the philosophical, they concentrate on the psychological aspects of the opposition. To them, the opposition is one between appeals to different personality types and ideals of interpersonal relationships; on the one hand, the emphasis is on the development of self-reliant, independent personalities free to challenge and criticize the authority and the theories of those in power, be they capitalists or bureaucrats; on the other, the emphasis is on the molding of submissive and obedient personalities lastingly conditioned to unquestioning reverence for authority and the ideologies of

the power holders. On the institutional level, this opposition translates into one between, on the one hand, devices for efficient expression of a plurality of opinions and the formation of a plurality of parties and pressure groups and, on the other hand, devices for the *Gleichschaltung* of opinions, the elimination of nonconformity, and the establishment of single-party government.

A survey of the opinions registered in the material on the question of the crucial differences between the Western and the Eastern ideological outlooks reveals in both camps a marked tendency to mold analytical distinctions onto the value orientations already taken for granted. Formulations of the crux of the opposition vary with ideological affiliations: the value attachments of the analysts determine their perspectives to a degree that makes agreement on the nature of the problems at issue virtually unattainable. Of particular interest is the widespread tendency to formulate oppositions in terms that set off the lofty aspirations of the one camp against the meager achievements of the other. A basic prerequisite for clarification would seem to be to reach an agreement either to stick to aspirations on both sides or to concern oneself solely with the dismal realities of actual achievement. In the former case thoroughgoing comparative studies in ideological argumentation might clear up what is as yet a virgin field for dispassionate research. In the latter case empirical investigations of social and political structures in their relation to actual attitudes and wants are urgently called for to set off in a truer light the teeming multitude of ideologically tilted statements that thrive on our general ignorance of the facts involved.

Opinion: Influence Versus Pressure

A problem constantly recurring in ideological analyses—outside as well as inside the UNESCO material—is this: how are the “real interests” of an individual or of the people to be determined?¹⁴⁰

A number of respondents, particularly Ducasse,¹⁴¹ Plamenatz,¹⁴² Brown, and Ranulf, agree in considering this the most fundamental of the issues taken up in the inquiry, but almost no one has ventured farther into this highly controversial and extremely difficult matter.

The main difficulty lies in the establishment of intersubjective agree-

ment on criteria and conditions of “realness”: it seems practically hopeless to disentangle what an individual is wanted to want from what he may be predicted to want under given circumstances.

Ducasse suggests this general formulation of criteria: “The real interests of the individual are those he actually prefers when he (a) knows what the possible alternatives are among which a choice is possible, and (b) knows both the hidden price and the hidden values, as well as the surface price and values.”¹⁴³

The crucial factor in this as well as in a number of less articulate formulations is the amount and reliability of information conditioning the preference. The analysis of the function of this factor leads to a general discussion of the conditions of opinion formation in societies that claim to be democratically governed. In the UNESCO questionnaire the question was given the form “In general, how would you trace a line between ‘democratically justifiable’ and ‘democratically unjustifiable’ processes of opinion-influencing?”¹⁴⁴

Responses to this question evidence a surprising degree of agreement. It is true that almost none of the respondents try to trace any definite line of demarcation of the kind asked for. This they consider futile and close to impossible in view of the tremendous differences in concrete situations. There is a large consensus, however, on the general standards to which opinion-influencing should ideally conform in a democratic society: these may not be explicitly or fully stated, but they may safely be said to be implied by the overwhelming majority of statements made on the subject.

It must be emphasized that the general consensus thus registered holds only on the level of ideals. There is extreme disagreement on the conditions making for optimal fulfillment of the ideals, whether in a capitalist, a social democratic, or a communist organization of society.

The ideals of democratic opinion-influencing implicitly agreed on by the respondents may very tentatively be formulated and classified as follows:

1. *Full information.* If and when a public is invited to express its opinion on an issue, the whole of the public should be given the means to acquaint itself with all arguments it would possibly consider relevant to the issue. Descriptions of what is at stake with regard to the issue should be as impartial as is feasible. If a small group within

the people has informational privileges, for example, by its position in the governmental bureaucracy or in the direction of a large financial or industrial concern, the public should be granted access to any part of the informational material of the group that would possibly be considered relevant to the issue.

Only if these conditions are fulfilled are individuals and groups justified in making propaganda for a particular solution to the problems involved. As long as the public is deprived of tools with which to resist opinion-influencing, any invitation to take an independent part in decision making is nothing but hypocrisy.

2. *Education and leisure to digest information.* If a group cannot partake in decision making because it lacks the general education and leisure that are at the disposal of other groups, every available means should be used to remove the disproportion. The more decisions touch the specific interests of the handicapped group, the more urgent is the elimination of these inequalities.
3. *Honest presentation of issues.* Given the inescapable fact that a public cannot effectively partake in all decisions affecting its welfare, the influence expert is forced to make a choice not only of issues for presentation, but also of aspects of the frequently complex problems involved. The temptation is always great to interpret expressions of public opinion and election results to imply positive or negative stands on questions never envisaged by the public. By refined and subtle as well as by crude and obvious bias in the presentation of public problems, the opinion molders can easily use this process of interpretation and elaboration to falsify the general picture of public opinion to suit their own interests. By clever selection of issues for presentation and by focusing public attention on those thus selected, the opinion leaders can elicit responses easily fitting their preconceived patterns and avoid responses that might be embarrassing or clearly opposed to their interests.

On the basis of these considerations, a third ideal may be formulated: if and when complex problems are brought before the public by groups with information privileges controlling means of mass communication, the selection of issues for public discussion and decision making should be such that the public is granted an

adequate chance to influence decisions on issues vital to its own interests and to influence them in directions that may go counter to those advocated by the groups enjoying influence privileges.

4. *Absence of intimidation.* Voting and opinion declarations of a similar character should not be influenced by threats of reprisals or promises of rewards. No pressure other than that of relevant arguments should be deliberately used in attempts to influence opinion. In particular, unpopular minority opinions should be protected against groups exploiting the prestige of popular majority status as a means to counteract minority influence.

These and other closely related ideals can, of course, be formulated in very different ways. The ones adopted express only a few of the many possibilities.

The advocacy of these ideals of opinion-influencing does not necessarily imply more than that their realization is viewed as something desirable. Consequently, there is no need to be committed to viewing their violation as more undesirable than the violation of any other ideal. Ideological controversy creeps in as soon as, in concrete situations, attempts are made to assign a "proper place" to ideals in a *hierarchy* of interests and norms.

As soon as the discussion shifts from the proclamation of ideals to the concrete confrontation of ideals clashing with ideals and of ideals clashing with what are considered "necessities," the analysis of agreements and disagreements becomes vastly more complicated. It is not at all surprising that so many of the respondents have found it impossible to trace any sharp line between "justifiable" and "unjustifiable" procedures of opinion-influencing.

Tolerance and Treason

What Should Be Repressed?

Answers to the third part of the UNESCO questionnaire include judgments on things, x , that should be tolerated or not tolerated, or that can or cannot be tolerated. The x 's are labeled by not too clear designations such as "antidemocratic propaganda," "attacks on democratic institutions," "pro-

paganda to change the form of government," "groups promoting a regime that would destroy the advantages of democratic procedure," "treason," "proposed changes through violence," "dangerous propaganda," "antidemocratic propaganda presenting a clear and present danger to the constitution," "people who do not support the existing social order," "opinions that make for insurrection," and "secret organization with the goal to change the form of government."

To compare the opinions of two ideologists one of whom tells us that we should not tolerate x , whereas the other tells us that we should tolerate x , we shall have to make sure that they are speaking of the same x 's, the same things—a task that often proves quite difficult. There is a tendency to class one ideologist as more tolerant than another if he proclaims tolerance and denounces intolerance in a louder, more emphatic or pointed way than the other. Close analysis may reveal, however, that the things x_1 , which the seemingly very tolerant person tolerates, represent a much narrower class of things than the class of things x_2 , which the seemingly less tolerant person is willing to let develop undisturbed. Or analysis may reveal that the designations used to characterize the x 's are too crude to warrant any conclusion as to what the ideologists in question wish to tolerate and what they do not. Here, as in many other cases, we shall have to analyze the actions of groups in order to be able to judge what they mean by their words. It is important to note, however, that inferences from nonverbal behavior are open to serious pitfalls even if made by neutral observers.

To obtain a survey of some important stands taken in the tolerance discussion, we shall work with the following classification of things that should or should not be tolerated:

x_1 : opinions, advocated or not advocated in agitation, that, if held by sufficiently many, are apt to justify acts undermining the democratic form of government, or acts that would make it less democratic; the acts in question may be lawful within a democracy

x_2 : opinions advocated in agitation that, if held by sufficiently many, are apt, etc.; the acts in question may be use of force, insurrection, high treason

x_3 : agitation explicitly justifying acts of incitement to acts undermining the democratic form of government

x_4 : incitements, direct planning, and organization aiming at forceful overthrow of the democratic form of government

These very roughly delimited classes of things are sufficiently different to make it important to know which, if any, of them a given ideologist proposes for repression.

To avoid introducing tremendous complications, we have not differentiated between different concepts of “democratic form of government” and “less democratic.” This seemingly uncritical attitude is based on the following opinion: however great the differences are between concepts of democracy, there is practically full agreement that the word should stand for something very valuable, something that is worth establishing or maintaining. Whatever their particular definitions of democracy may be, the ideologists’ answers therefore reveal how they conceive of relations between things very valuable and policies of repression.

There are other distinctions, however, that are just as important as the distinction between classes of things tolerated. Suppose one respondent advocates repression of a relatively wide class of phenomena but adds that he takes as a premise that the times are troubled, that there are enemies of democracy who, if given the opportunity, could profit by the mere existence of opinions of the kind x_1 . Thus, the seemingly intolerant ideologist may limit the intended field of application of his principles to a very narrow class of historical situations, whereas a seemingly tolerant ideologist preaching suppression only of things of class x_3 may choose a very wide field of application for measures of repression. Close analysis may reveal that he means that in times of slight troubles of a rather common type, a much wider class of opinions and acts should be repressed. Thus, to understand the import of views proclaimed, it is necessary to try to find out *under which conditions*, historical, social, economic, and so on, the recommendations are expected to apply. If we call these circumstances the y -conditions, we could specify different y -classes such as:

y_1 : *all* conditions (i.e., suppression under any conceivable circumstance)

y_2 : times of trouble, of economic crises, of internal stress

y_3 : times of civil war or of impending or actual international war

Third, two ideologists both proclaiming that something ought to or must be suppressed may possibly mean rather different things by "suppression." If, for example, the one by suppression thinks only of legal prosecution by the authorities of the country, whereas the other by suppression means any means whatsoever of putting an end to something, the seemingly tolerant ideologist saying that antidemocratic propaganda should not be suppressed may in practice be less tolerant than one in favor of suppression: the one may advocate very effective measures of social discrimination, economic boycott, and so on, whereas the other may reject these measures but recommend suppression in the sense of legal prosecution with lenient rules. Mostly, but not invariably, the "suppression" and "nontolerance" spoken of in the answers relate to the question of interference by state authorities. Thus, we have a third variable to take care of when interpreting the ideologies of toleration and suppression; let us call it the *z*-processes: those constituting the *kind* of suppression or noninterference contemplated.

Although very few of the respondents have gone into detailed analysis of the difficulties involved in delimiting areas of tolerance from areas of suppression, most of them emphasize the practical impossibility of formulating universally valid and applicable rules in the field.

These difficulties are reflected in the confusing variety of opinions registered in the material. Any attempt to classify opinions on the tolerance problem runs the risk of distorting the significance of the statements made. Almost all formulations of scope and limits of toleration are studded with vague value expressions that make it a venturesome task to locate them even approximately along the *x*-, *y*-, and *z*-axes of reference suggested.

The majority of the respondents focus their discussion on the tolerance requirements implicit in their conception of democracy: their main concern is with the problem of whether allegiance to "democracy" implies the duty of tolerating or repressing opinions directly or indirectly aimed at overthrowing and destroying the institutions and structures they identify with democracy.

Pool,¹⁴⁵ Ross,¹⁴⁶ and Ranulf advocate the toleration of such opinions, at least insofar as they may be classed under x_1 , x_2 , and x_3 , but probably not under x_4 .

Ross distinguishes, however, between opinions and the *means* used to propagate them; just as he does not accept the toleration of physical con-

straint and violence as means of propagating an opinion, he will not tolerate the use of deceitful agitation and fraudulent distortion as means to gain adherence for it.

A number of other respondents seem willing to defend and advocate the toleration at least of opinions of classes x_1 and x_2 : thus Edgar F. Carritt, Ewing, Lovejoy, and others. It is very difficult, however, to map out exactly how opinions are divided. The distinctions between opinions according to the directness of their relations to overt acts of violent subversion are at best very fuzzy. Some respondents, particularly McKeon,¹⁴⁷ Brown, and Hans Kohn, seem to find a reliable guide in the famous “clear and present danger” rule coined by Justice Holmes. It seems doubtful, however, whether a rule of this kind can fruitfully be applied under circumstances of such ideological complexity as those prevailing in our day.

A number of respondents discuss the limits of toleration directly in terms of their interpretations of the requirements of democracy.

Sweezy¹⁴⁸ and Hollis agree that any curtailment in the freedom of opinions is ipso facto a move in the direction of “less democracy”: this does not exclude, however, that in concrete situations such moves may be deemed perfectly justifiable.

Others emphasize the right and duty of their “democracy” to defend and protect itself from being undermined by opinions that might bring about its destruction. Democracy does not imply an obligation to commit suicide, as Horvath puts it.¹⁴⁹

Some stress the necessity of repressing opinions directed against democracy as a *method* of decision making. Others go farther and require that opinions going counter to and endangering “democratic” decision *contents* be repressed: thus, Bettelheim,¹⁵⁰ Lefebvre,¹⁵¹ and Rieger¹⁵² all seem to think that any democracy, whether bourgeois or communist, will only tolerate opinions favoring the social order on which it is based. They even go farther to state that repression of opinions is compatible with democracy if it is directed against groups bent on reversing the trend toward greater and broader democracy.

A similar view is taken by Sweezy, but not on any basis of deduction from a definition of democracy: in his view, suppression of opinions is justified if designed to further the progress toward greater democracy, but not justifiable if it paves the way for further infringements of democracy.

A slightly different trend of argumentation is manifest in the Jørgensen contribution: antidemocratic propaganda should not be permitted as long as differences in social, economic, and educational status make parts of the population unable to resist such propaganda.¹⁵³

The less ideologists find themselves content with proclamations in terms of vague value judgments, the more they are forced to penetrate into the realm of concrete complexities of cases and situations. If current ideological doctrines were analyzed from a casuistic angle instead of an idealistic one, their interrelations would be found to be marked by incomparability rather than by incompatibility. Each ideological system bears the marks of its formation under the impact of states of affairs never seriously envisaged in rival systems. Ideologies cannot be understood and clarified unless they are seen against the particular historical setting in which they have developed, and related to the particular state of affairs faced by those who have vindicated them as well as those who have accepted them and believed in them.

It is not the aim of the present analysis to take up causal points, but I hope I am excused for suggesting that the ideological controversies owe in part to the general neglect of explicit statements of past and present conditions limiting the intended validity of ought-, should-, and must-sentences. That this neglect has its distinct advantage in consolidating in-groups and justifying hostility toward outgroups may to some extent explain why it has not been more seriously combated.

One-Party Systems

On the level of surface expressions, the respondents may be divided into four groups: (1) those who find one-party systems incompatible with any democracy; (2) those who find one-party systems compatible under some conditions and for some of the established usages of the term *democracy*; (3) those who find one-party systems compatible with democracy, without any reservations; (4) those who consider the party question irrelevant to the question of whether a regime is or is not democratic.

A definite majority of the respondents take the position that one-party systems are incompatible with democracy: Lewis,¹⁵⁴ Patri,¹⁵⁵ Plamenatz,¹⁵⁶ Wright,¹⁵⁷ Eisenmann, Hagopian, Wilson Martins, Nomad, et al.

Horvath,¹⁵⁸ Jørgensen,¹⁵⁹ and Ricardo R. Pascual take the view that, ideally, democracy does not require the institution of a party or parties; the only compatible system is a no-party system.

A few contributors, particularly McKeon,¹⁶⁰ Pool,¹⁶¹ Farber, and H. J. Simons, find that one-party systems may be compatible with democracy in societies characterized by conditions like homogeneity of attitudes and valuations, absence of public issues, identity of interests, etc., but they all emphasize that these conditions are so rarely found and so unlikely to be realized that one-party systems can be considered incompatible with democracy in all major societies of the present age. Inversely, group 1 may be inferred to agree that under most of the extreme and unlikely conditions listed by group 2, one-party systems would be compatible with democracy. Thus, the surface disagreement may be discounted as a verbal one.

Another potent source of verbal disagreement lies in the fact that few of the respondents have made explicitly clear what usage of *democracy* they are referring to in their judgments of compatibility or noncompatibility. Group 3 and to a large extent also group 2 seem to be using *democracy* in a broader sense, which respondents in group 1 would quite certainly not recognize as theirs.

Some respondents introduce distinctions according to usages: thus, Logemann,¹⁶² Perelman,¹⁶³ Bochenski, and others emphasize that, although one-party systems may be incompatible with democracy in the Western sense, there are certainly other plausible senses in which even proletarian dictatorship and Fascist totalitarianism will be found compatible with democracy. It is obvious that if broad usages of these kinds are adopted, answers to the one-party question cannot very well be anything but positive.

The members of group 3 manifest close similarities in their arguments for compatibility: they all stress the uselessness of pluralities of parties if there are no essential differences of opinion among those competent to judge and if the doctrines of the one party in power have the status of science and not mere opinion. If such conditions hold, it is argued, deviations are sure symptoms of incompetence or of unsocial, essentially criminal, behavior.

Thus, Bettelheim,¹⁶⁴ Lefebvre,¹⁶⁵ and Rieger¹⁶⁶ all assert that in socialist society—the only society in which these conditions are or will be

fulfilled—pluralities of parties have no *raison d'être*. Less categorical positions within the same group are argued by Horvath,¹⁶⁷ Jørgensen,¹⁶⁸ and Sweezy.¹⁶⁹

What is the nature of the disagreement between group 3 and the other groups? It is not necessarily based on terminological deviations. Group 3 may well adopt the same usage of *democracy* as, say, group 1 and yet be able to argue its case. The difference is one of perspective and outlook: conditions of society and developments in social knowledge that the one group considers close to realization are by the other groups held to be very far from realized or even impossible of realization. The real issue is not whether one-party systems are compatible or incompatible with democracy, but whether the conditions of unanimity of opinion, community of interests, and absence of issues that alone are agreed to justify one-party systems are realized or likely to be realized in any of the societies existing in our age. On this issue, opinions clash in a real way: they mirror the general opposition evidenced in ideological controversies over the status and potentialities of social science and over the scope of toleration of dissenting opinions and critical attitudes.

Scepticism and Democracy

The problems of toleration and repression lead directly to fundamental philosophical questions of the validity of ideologically opposed opinions and the possibility of establishing a science of society capable of commanding universal consensus for its conclusions.

In the UNESCO questionnaire the problem was formulated in terms of the relations between “scepticism” and “democracy.”

Philosophical dichotomies like scepticism versus dogmatism, relativism versus absolutism, fallibilism versus infallibilism, empiricism versus rationalism have come to play pivotal parts in twentieth-century ideological controversies. In the 1920s and 1930s, a significant trend in political argumentation focused on epistemological and axiological scepticism as a basis for theoretical defense of a formal methods conception of democracy as against the contents conception advocated on the left as well as on the right on the basis of philosophical absolutism and dogmatic rationalism.¹⁷⁰ In later years ideological controversies have even more pointedly

been concentrated on basic philosophical issues; the debate has been pushed far beyond questions of political and economic instrumentalities toward ultimate problems of cognition, valuation, and normation.

In the questionnaire a suggestive catchphrase coined by the British political scientist D. W. Brogan was chosen as a point of departure for the discussion: "Scepticism is part of our faith."¹⁷¹

No straight answers to the question could be expected. It was hoped, however, that respondents might feel provoked to answer in terms of kinds of scepticism and kinds of subject matters to be sceptical about. As a slogan in ideological debates "scepticism" may not indicate more than an attitude of doubt toward things on which the user wants to focus attention.

As might have been anticipated, the Brogan formula was interpreted in strikingly different directions. There is, accordingly, little sense in classifying responses according to surface agreements or disagreements.

It is highly important, however, to note the near-automatic rejection of the Brogan formula by all those who advocate the justification of one-party systems: to them, scepticism seems to be a term of strictly dyslogistic connotation only to be applied to wavering and uncertain opponents. Taking for granted that a reliable science of society has been developed and that competent and honest people necessarily agree on basic issues, they cannot but find the Brogan formula a highly misleading expression of "democratic" ideology, however the formula might be interpreted.

Jørgensen¹⁷² interprets the question to ask if the view that human beings are incapable of deciding whether or not divergent political proposals and measures are equally good can be used as an argument for the establishment of democracy in the sense of majority rule. He rejects the view both as in itself tenable and as a valid argument for political democracy. In this conclusion, we may infer, probably all the respondents agree; Jørgensen is the only one, however, who has gone into detailed analysis of the problems involved.

Wright¹⁷³ emphasizes in a similar way that if scepticism is taken to mean that "all views are equally valid or invalid," it does not have any affinity to requirements of democracy. There is nothing to indicate that any respondent would disagree with him on that point.

Sweezy rejects the Brogan formula on the basis of a similar interpretation of scepticism: he argues that the existence of a science of society re-

futes the claim that “all opinions are equally valid” and concludes that there is no longer any justification for raising scepticism to the level of a principle of democratic ideology and for denying “that one political creed may be more compatible with democracy than others.”¹⁷⁴

In their criticism of the position taken by Sweezy, Ducasse,¹⁷⁵ Field,¹⁷⁶ and Pool¹⁷⁷ do not deny that some political opinions can reasonably claim a higher degree of validity than others, but they nevertheless defend scepticism as an important democratic principle expressing the urgency of constant alertness and critical-mindedness, and the conviction that only the open toleration of widely dissenting opinions can provide a safeguard against the perpetuation of errors backed by power and authority.

Lovejoy introduces a set of very important distinctions into the debate on this issue: “Democracy does not imply the assumption that no political principle or assumption can be known to be true. It does, however, imply four assumptions: (a) that any individual’s judgment on a political question may possibly be erroneous; (b) that no individual, as an individual, has a moral right to coerce other sane and adult individuals; (c) that—since, in the political state, it is necessary that on some matters joint and collective action be taken, and also that individuals be protected against coercion by other individuals, through the exercise of coercive power by the state—it is essential that some method be found of peaceably determining what collective action shall be taken and how far and in what ways the coercive power of the state shall be exercised; and (d) that the best and most effective means of settling peaceably such political questions, i.e., questions of state actions, is to permit all citizens of the state to participate in the settlement of them and to accept as the final settlement the decision of the majority. On these propositions democracy does not imply ‘scepticism’: it implies that the propositions are true. It does not, however, imply that the judgment of the majority is inerrant; and it therefore allows freedom to minorities to agitate and vote for the reversal of previous majority decisions.” (personal communication)

It may be inferred that most of those who, like Bober,¹⁷⁸ John Bowle, Brown, Smith, and ten Hoor, endorse the Brogan dictum without reservations also agree to the points made by Lovejoy; the scepticism implied by democracy does not extend to what are considered basic principles of its maintenance and growth. What is basic is, of course, highly controversial and reflects the divergencies in conceptions of democracy; this, however, is

only another way of saying that with the majority of ideologists, the principles lie well beyond the reach of any possible scepticism.

Value Foundations of the Conflict

In the last part of the UNESCO questionnaire, scholars and experts were invited to develop their views of the general philosophical foundations of the conflicts and controversies under scrutiny. A set of very vague and abstract questions and suggestions was given to stimulate reflective commentaries in the direction of formulations of the general nature of ideological disagreements and assessments of the conditions of their possible reconciliation.

Classification of opinions registered in this part of the material is practically hopeless and theoretically close to futile. The questions set forth gave rise to responses in highly different directions, and answers are only rarely comparable because the respondents have focused on different issues and interpretations.

A number of respondents take up for scrutiny the question of whether current ideological disagreements are fundamentally terminological, descriptive, or normative in character.¹⁷⁹

Responses to this question largely reflect attitudes to possibilities and procedures of settlement and reconciliation: should attention and efforts be primarily concentrated on semantic clarification, empirical and theoretical research, or direct action to bring about changes in basic attitudes? No incompatibility is apparent among the views taken by “terminologists,” “descriptivists,” and “normativists”: there is a difference in perspective and approach without direct ideological relevance.

The greatest number of those who discuss this problem tend to stress as the focus of discord a difference in the analysis and theoretical conception of structures and relationships in society: views of this kind are taken by Bettelheim,¹⁸⁰ Bober,¹⁸¹ Horvath,¹⁸² Jørgensen,¹⁸³ McKeon,¹⁸⁴ Ricardo R. Pascual,¹⁸⁵ Sweezy,¹⁸⁶ Eric Weil,¹⁸⁷ and Lien. In principle, a difference of this kind might be expected to diminish with the gradual advance in scientific knowledge of social facts; this is what some of the respondents anticipated, but others point to the force of traditional patterns of thinking and the vested interests of privileged groups as obstacles on the road to settlement. Thus,

Sweezy thinks that what is holding back the development toward general consensus is "that those who have vested interests in the maintenance of capitalism do not want the truth to be taught."¹⁸⁸ Others return similar charges against communists. In the view of Ducasse¹⁸⁹ and Field,¹⁹⁰ there is no cognitive basis for reducing the current opposition to one between scientific truth in the one camp and tradition-molded prejudices and intellectual dishonesty in the other; the differences in analyses and interpretations of social relations reflect differences in value perspectives and political motivations.

Similar conclusions are reached from discussions of the relationships between ultimate political goals and means advocated for their fulfillment.

In the questionnaire, one of Lenin's formulations of the ultimate aim of political activity was given as an example, and opinions on its compatibility with other formulations of ultimate aims were urged.¹⁹¹ None of the contributors takes issue with the ultimate aim formulated by Lenin. There seems to be genuine agreement among all concerned that the ideal end of social development can well be described in terms like those used by Lenin.

As has so often been found in this inquiry, however, general agreement on ideals is unfortunately of little relevance to the clarification of ideological disagreements.

Perelman is particularly emphatic on this point: to him, the controversies are by no means assuaged by "the consoling thought that all political philosophers proclaim the same ultimate goal. . . . The ideological differences relate to real societies and not to utopia. Once conditions allow for the attainment of a utopia, ideological conflicts lose all interest and meaning."¹⁹²

In the same vein ten Hoor comments: "It is possible, of course, to state the aims of government in such general terms that there can be no incompatibility. However, incompatibility becomes a problem when we 'descend' to the level of implications, consequences, conceptions of ends, choice of means, etc. . . . It does no good to devise some generalization which seems to serve no function except to conceal this fact." (personal communication)

It might perhaps be objected that descriptions of ultimate goals need not necessarily be given in excessively general terms. Generality and abstraction are harder to avoid in proclamations on the means chosen to arrive at the ultimate goals.

Respondents generally concede that agreements on ultimate goals are

entirely compatible with robust disagreements on methods to be used in their attainment, on the potentialities of the existing conditions, and on the solution of actual differences of evaluation and judgment.

A number of respondents, however, stress an important qualification: it may well be that ideological controversies are mainly centered on means and conditions, but the possibility is not thereby excluded that the disagreements embrace a decisive *normative* element. Oppositions over the choice of means to a given end do not take place in a vacuum but are conditioned by the existence of a number of diverse intrinsic norms that may preclude the adoption of otherwise effective means. The disagreements are to a large extent concerned with intrinsic norms of this kind; values like the dignity of the human person, intellectual integrity, minority rights, and so forth, are frequently referred to as crucial in these respects. Neither of the parties in the conflict denies any of these values although they may be very differently interpreted in concrete situations: controversies take the form of mutual charges that the values are not respected or lived up to in the opposing camp.

Are the chances of reconciliation better or worse if the conflict turns out to be predominantly descriptive in nature? In the UNESCO questionnaire it was suggested that conflicts turning on ultimate norms might prove irreducible. Several contributors seem to take a similar view and emphasize, with Wright,¹⁹³ that "so long as opinions are regarded as relative and no values in the field are taken as absolute, there is always a possibility of reconciliation or of temporizing."

Others, however, take the contrary view that disagreements on means may well turn out to be equally deep-seated and intractable. Thus, Sweezy states that "people will cling to traditional or accepted patterns of analysis and interpretation just as tenaciously as they will to what are often regarded as more basic value judgments."¹⁹⁴ He even suggests that the very fact that both camps profess their allegiance to the same ultimate goals and values may turn into a source of contention and bitterness; each camp will accuse the other of hypocrisy and deceit.

Among the great variety of reflections made in the material on the general relations of value antagonisms to prospects of diminishing the acuity of the conflict, the following might be singled out as possible points of departure for further mediation:

Conflicting views on ultimates will exclude rational but not other approaches to the peaceful settlement of ideological conflicts. There is, of course, always the possibility that convictions on ultimates may change or simply wither away; this may affect the alignment of agreements and disagreements. The possibility must not be overlooked that ideological clashes are more or less deliberately kept going on semantic confusions and distortions of issues as a means to divert public attention from the nonideological clashes of naked ambitions for economic, strategic, and other kinds of power.

If the ideological conflicts can be traced to different conclusions from analyses of social conditions and to different predictions of how common aims can be achieved, potent rational approaches may be open for the reduction of the more violent consequences of the conflicts. Chances to obtain moral and general ideological sanctions for warlike measures will decrease if the conflict in question is set before the peoples involved as one centered on the choice of effective means for the attainment of compatible if not common goals. The possibility must, however, be taken into account that theories of social conditions and instrumentalities may be stubbornly adhered to in the teeth of otherwise adequate demonstration of their falsity: this emotional and volitional element in social knowledge may prove much harder to cope with and may provide an important obstacle to possible progress toward peaceful settlement of conflicts for a long time to come.

Conclusions

It is perfectly possible to compare ideological doctrines without prejudging the issues by taking a stand for or against some of the doctrines, but this requires a motivation that is rarely found among people who are actively engaged in political struggle.

Even the possibility of comparison has been implicitly denied, particularly by those (Nietzsche, Spengler, Sorokin, et al.) who believe that a human being cannot arrive at conclusions other than those that favor his interests, basic cultural heritage, biological drives, or other noncognitive factors. One of the reasons not to take the statements of these theorists too seriously is that they implicitly assume that they are exceptions to their

own principle. They indulge in vast comparisons and do not seem to doubt the objectivity of their findings.

Stripped of misleading philosophical entanglements, the problem of the objectivity of ideological comparisons seems to boil down to that of getting a sufficient number of researchers of diverse cultural and political backgrounds to work permanently and in a spirit of intellectual integrity on the issues involved.

Today, nationalist trends and political servility are fostered in research centers by their dependence on official bureaucracy or economic power. Social pressure is constantly at work on the researchers to make them produce statements agreeable to the dominant political trends. They are even implicitly expected to adapt themselves to the foreign policy of their nation: in times of shifts of alliances or outbreak of war, sudden shifts in theories are expected. Accounts of the history of allied powers are to be more sympathetic; accounts of hostile powers are to be altered in the opposite direction. There is scarcely a country in which those resisting such “revisions” have not been subjected to crude attempts at *Gleichschaltung*, instead of being encouraged and applauded as valuable organs of equilibrium in the planetary community of men.

Strong currents of international—or supranational—character can reduce the pressure on the researchers and make international loyalties compete with national ones. Such currents cannot prevail, however, without a strengthening of trends toward fair play in the struggle between national or subnational groups who compete for prestige and power. If on the subnational level we have ingrown habits of picturing antagonists in black and ourselves in brilliant white, and of looking at our opinions on controversial issues as absolute certainties while regarding those of our opponents as distorted and biased, we shall have no force to resist prejudged accounts of ideologies. We are easily made victims of “official” versions of the ideological situation.

It should be added that significant progress toward fair presentation of ideological oppositions cannot be expected as long as there is internal strife of such an intensity that a split morality is propagated by all opinion leaders: one when presenting the outgroup’s platform and another reserved for the ingroup.

These are reflections relevant to any conclusions on findings on ideo-

logical differences in our age. The ensuing statements of conclusions must be interpreted against the background of these reflections.

1. The material gathered by UNESCO reveals that even among specialists in ideological research there are great *differences of opinion as regards matters of fact* of unquestioned relevance to the description of ideological antagonisms.

2. Consequently, a large proportion of the statements made in the contributions should be viewed as expressive of *working hypotheses* justifiable on the basis of present-day efforts in ideology research, but subject to continuous corrections in the future.

3. It is beyond the powers of present-day research to determine in any exact way the lines of agreement and disagreement between ideological doctrines. If sufficient knowledge were stored in individual minds, it could not easily be conveyed to others. Present-day language habits are not adapted to the immense task of exact comparison of beliefs of groups and nations engaged in struggles for material and spiritual dominance.

4. Attempts at such a comparison encounter the difficulty that the language habits are adapted to agitation and preaching in the field of ideology, not to fair presentation. Basic terms in the vocabulary of ideologies are emotionally loaded slogans, and to make them resistant to analysis is a virtue in the eyes of the indoctrinated.

5. The function of ideologies to stabilize motives of joint action and encourage the fighting spirit of their adherents, makes it of little concern to ideologists to formulate carefully the particular sociohistorical situation that makes their joint action possible and purposeful. Thus, the researcher who wishes to compare the normative statements of two competing ideological trends must himself, as historian, sociologist, economist, psychologist, etc., find out *which unstated premises of action are common and which are specific* to each competing group. It is not in the interest of ideologists to bring to attention the historical conditions of their normative proclamations. Rather to the contrary, they tend to stress any timeless, universal, or a priori character of which they can conceive.

6. It is a peculiar feature of our time that one positively loaded slogan is common to all powerful ideological groups and does seem to express more than mere positivity: it is more than a synonym for "good." This slogan is the term *democracy* and closely related derivatives.

7. Because of this slogan's universality, an inquiry into doctrines set forth as expressing democratic ideology is a convenient point of departure for the study of possible common features of all dominant ideological trends of this era. This method of study does not assume a priori that a common slogan implies the existence of a common belief.

8. Any formulation of universal ideological trends must be *prefaced by warnings*: the formulation presupposes successful clarification of linguistic, particularly semantico-terminological, confusion. It presupposes the even more difficult task of finding and *formulating implicit premises* of programs of social action. No individual or group can claim more than to give tentative, ad hoc conclusions on these matters.

9. The Lincoln formula affords a convenient point of departure for the analysis of ideological agreements on a "democracy." There is general agreement that to serve the people in the broadest sense of the term, and ultimately the people of the Earth, is the sole justification of government. Further, it is generally agreed that the people are served when each individual is given the fullest possible access to the means by which he can develop his own possibilities without jeopardizing the chances of others.

10. There is general doctrinal agreement that government should be "by the people," that is, that one should develop the most intense and widespread participation of the inhabitants in preparing, reaching, and carrying out decisions of importance to the welfare of the community. It is also agreed that such participation is possible only if a minimum of general education and leisure and energy is available for studies of the issues brought before the people. It is further agreed that in times of severe crisis, popular participation must be more or less reduced and opportunities of incitement to violent change of form of government curtailed.

11. From the unanimity on the principle of equal possibility of access to economic, educational, and cultural values flows an agreement that no individual should be allowed, by his particular talents or shrewdness, to reduce others to permanent dependence on him or to reduce permanently their and their offspring's access to economic, educational, and cultural values.

12. From the generally accepted broad interpretations of "people" flows a general rejection of race or color discrimination and a rejection of discrimination on the basis of religion, philosophical inclinations, or nobility of birth.

DEMOCRACY, IDEOLOGY, AND RATIONALITY

13. Implicit in the doctrines of government by the people and the appeals to knowledge as the guide in solving questions of policy, is a rejection of leadership on the basis of mystical insight of elites, of a *Führer* and *Gefolgschaft* following “the instincts of the pure blood.”

14. There is no indication of disagreement on the opinion that, in all ideological camps, people who sincerely accept the foregoing doctrines try to live up to their severe requirements and deplore the shortcomings of achievements so far realized.

15. The agreements thus listed make it possible to formulate severe criticism without leaving a common ground of accepted doctrines. The basic criticism will be that of inconsistency.

16. Even if the view were accepted that mere lip service to the *common aspirations and principles* is the rule and sincerity the exception, their codification and the *increasing frequency of appeals to them* the world over by individuals and institutions on the national and international level give to those who wish to propagate their sincere acceptance *a unique instrument* that should be tentatively perfected by research and worldwide educational drives.

Ideology and Rationality

Neutral and Negative Definitions of Ideology

Definitions of the term *ideology* may be grouped in two main classes, those that imply a negative evaluation, such as “there is something rotten about any and every ideology,” and those that are roughly neutral. The first class, which treats *ideology* as a dyslogism, may be further divided into two subclasses: definitions that stress illusion, preconception, fanaticism, mistakes, or narrowness, but *not* insincerity, and those that *do* refer to insincerity, bad faith, rationalizations in a Freudian sense, distortion, concealed interests, or naked power orientations. Most of the couple of hundred definitions provided in a previous work (Naess et al. 1956) conform to such a classification into neutral or negative definitions.

Rather than starting out here with a dyslogistic normative definition of the terms *ideology* and *ideological*, I define *political ideology* in a roughly neutral way, as for example has been done by F. Gross (1971: 5): “A political ideology is a system of political, economic, and social values and ideas from which objectives are derived. These objectives form the nucleus of a political program.”

Perhaps the term *system* in this definition might be dropped in favor of *aggregate* or *conglomeration*, since “system” suggests a rigid rather than a loose connection between parts of the ideology.

Political ideologies are predominantly rational and objective in various

This article was reprinted, with changes, with the permission of Kluwer Academic Publishers from *Ideology and Politics*, edited by Maurice Cranston and Peter Mair (Alphen aan den Rijn: Sijthoff, 1980), 133–42.

senses. Intersubjectively and interculturably testable, *sachlich*, their ideas may be true or false, valid or invalid. In principle, a scientific theory may be a mass of mistakes, as in the case of modern cosmology, but it is nevertheless objective. The same applies to testable ideas in general. However, ideologies are only *predominantly* rational: there are degrees and there are exceptions.¹ Nevertheless, the more or less controversial exceptions should not color the metatheory of political ideologies. As metatheorists, conducting *descriptive research* on political ideologies, we influence political life in different directions according to how we speak and write about political ideologies. The present paper is thus partly motivated by a desire to contribute to the partial rehabilitation of political ideologies from derogatory pronouncements made by political scientists and other groups of “intellectuals.”

Empirical Tests of Rationality

The rationalist and objectivist thesis has an empirical foundation. Widely known material in support of the thesis was collected by UNESCO from 1948 to 1949, when—with the superb collaboration of Stein Rokkan—I led its project on the ideological controversies between East and West concerning democracy. I shall have to describe the project in order to illustrate what might be called successive approximations to rationality through debate.

UNESCO invited about four hundred political scientists and well-known defenders of political creeds to describe their views on ideological and controversial issues at the beginning of the Cold War. A long and complicated questionnaire was duly answered, sometimes in the form of carefully written articles. Excerpts from thirty-three answers,² together with an analytical survey, were subsequently published. The resulting book was immediately sold out and never reissued.

I shall now convey a crucial lesson of the project. Each answer was mimeographed and sent to the other participants. Critical and polemical sections were commented upon, and in some cases we were able to organize a series of dialogues between fierce ideological opponents. The contact sponsored by UNESCO led to successive clarifications of disagreements and to the elimination of misunderstandings and unnecessary rhetoric. Although the dialogue sharpened some of the disagreement, and although

contrasts became more sharply defined, nevertheless the whole process served to increase the level of rationality and objectivity. When one unambiguously stated opinion contradicts another, both cannot be true. Mistakes, however, do not automatically reduce rationality. If they did, science would have to be classed as irrational.

Accusations of *Unsaublichkeit*, of motivational distortion, and of all the other features that push political ideologies into cognitive disrepute were weakened or tended to disappear. On the whole, the sharp disagreement concerned *testable hypotheses*. This holds true if we do not suggest more severe requirements of testability than are adopted by sociology, history, or cosmology.

Whereas much of the UNESCO material is published in some form, my second batch of empirical material is largely unpublished, or accessible only to those who read Scandinavian languages. In short, it is the formulation of, and the debate concerning, what has been called green political ideology. It is not a very definite group of ideas; rather it is a family of related and very broad views that fit exceptionally well Gross's definition of ideology.

Deep Value Priorities in Ideology

In political ideologies, political objectives and programs are derived both from deep-seated value priorities and from hypotheses about the world. For example, a decrease in or freezing of the material standard of living in the rich industrial countries is proposed as an expression of world solidarity, not just for reasons of resources, or to avoid north-south confrontations, or because the recent increase in the material standard of living does not seem to have increased the well-being of the average human being. This proposal is *in part* motivated by adherence to "universal solidarity" as a deep value priority, and to its realization as a hypothesis through politics.

A second example can also be drawn from Green ideologies. Concepts relating to an increase in the quality of life are advocated on fairly philosophical grounds in order to supersede those related to the standard of living. From this new value priority, new objectives are derived that contrast with traditional social-democratic views. Indeed, the social-democratic government in Norway has been provoked to put forth a political program

for 1978–1981 that takes notice of the value debate. Eight main goals of its policy are formulated, and its concrete political proposals are worked out as a consequence of the value priorities' acting as normative guidelines.

A third example concerns how a higher regard for the needs of future generations—resources, clean oceans, diversity of cultures and ecosystems—clashes with prevalent priorities. The justification for this new approach requires depth of argument and touches the levels of philosophy.

Of course, there are many other examples from many parts of the world that show the vigor of political ideologies operating on a fairly high level of rationality combined with deep value orientation. “Deep” in this context refers to chains of argument: “Why *A*? Because *B*. Why *B*? Because *C*. Why *C*? Because *D* . . . ,” and so on. The farther such chains extend, the “deeper” are the questions and the answers.

A major question remains concerning the intersubjective and intercultural testability of value priorities. How can a *proposal* for increased global solidarity be tested for goodness or validity? This depends on the arguments for the proposal. It is largely an empirical question as to which arguments actually are used by those who defend an ideology, and it turns out, on the whole, that the weight and relevance of the arguments are testable. In the present case, for example, while it may be difficult to test some of the arguments concerning a decrease in north-south confrontations, it is nevertheless not impossible. The argument that overconsumption in one part of the world in the face of hunger in other parts of the world contradicts the ethics that most consumers wish to practice, is itself testable. This argument does not proclaim the validity of an ethic, but the ideology is, after all, a political one, and not a complete system comprising ethics. The argument is testable as a hypothesis about wishes and consumers.

Value-oriented arguments against Norway joining the European Economic Community were based on highly testable predictions, as were the arguments for EEC entry. Both sets of predictions, in the form in which they were stated in the mass media, have now been tested and, on the whole, confirmed. Some of the more carefully worded predictions remain either untested or unconfirmed. In any case, it is not warranted to complain about an essential lack of testability in such value-oriented arguments.

In short, a proposal is good in relation to its value statement, and the value statement is tested by asking what the value is supposed to be valu-

able for. There are hierarchies of aims and goals, and therefore of rules, of norms, and of values. In ideologies, as in scientific research, rules and values have no definite ultimate foundation. Or if they do have, such as with the basic rules of inference in a system of logic, there are limits to testability. Without trying to take up the philosophical problems encountered here, I contend that such a limitation does not justify a denial of rationality.

As already indicated, however, ideologies do differ in this regard. A distortion of problems may take place, for example, as is ably argued by Raymond Aron (1957: 239–40): “Sometimes the [ideological] debates truly reflect the problems which a nation must seek to solve, sometimes they distort or transform them in order to fit them into would-be universal patterns.” The *intercultural* testability is realized insofar as the special conditions within one nation or culture can be described so that they are roughly comprehensible to outsiders. In other words, there is no difference in principle that makes “foreign” political ideologies inaccessible to research on ideology.

The Irrationality of Our Opponents’ Ideology

There are certain misunderstandings that contribute to the view that political ideologies either are irrational or function irrationally.

1. Violent clashes of will and crude confrontations are taken as proof of the irrationality of the sets of ideas of the combatants. Certainly, if the will to compromise is lost, political confrontation is likely to follow, but this may be taken into account in a rational fashion within the ideologies: “if they do not accept our proposal, we shall win.” Thus, the fight itself is not part of the ideology.
2. We attribute blindness, partisanship, and closed-mindedness to our ideological opponents, and since we do not regard ourselves as ideologists but as being politically open-minded and reasonable, accusations are then turned upon ideology in general.
3. We occasionally tend to identify the ideology of our opponent with his slogans and catchwords, or with the least defensible of its versions, whereas we select carefully what we are willing to identify as the views of our own group or party.
4. The closed-mindedness of our opponent is conceived as being typi-

cal of his ideology. In fact, it may owe largely to his having already heard most of what we tell him. He has already decided that our view is untenable, and therefore he is impatient and will not listen. The simple explanation for his stubbornness may be unconvincing to us, because we feel sure that *if* he really listened carefully he would change his opinions—or else we have to consider him stupid or dishonest.

5. The alleged fanaticism of our opponent or his stand has a similar genesis. Here, though, a set of rhetorical rules of the political game is relevant. Suppose, for example, that a policy is *defended* by a dozen pro-arguments and by a dozen arguments against counterarguments (“cc-arguments”). Then the rhetorical game is such that no admission of the slightest relevance or weight of a main counterargument, or a ccc-argument, is acknowledged without an immediate proclamation of the superior relevance or weight of a corresponding cc-argument or cccc-argument. So, within the framework of this game, no concessions are granted. Given a negative attitude toward the opponent or his stand, the rules of the game are falsely attributed to close-mindedness and/or fanatical beliefs. The negative conclusions are subsequently transformed into derogatory utterances about ideologies.

6. The overwhelming complexity of political considerations makes it necessary for a politician to rely heavily on intuitions in forming a policy. However, the rules of the game demand that, if pressed, he should be able to furnish arguments. It seems that, lacking real arguments, he might resort to anything, however irrelevant or trivial, but the way in which the “answer” is provided suggests that the policy defended is largely independent of the support of those so-called arguments.

Ingroups and Outgroups

An exact comparison of expressed doctrines requires distinctions in terms of ingroups and outgroups. There is an ingroup version made by the adherents of doctrine *A* describing itself and doctrine *B*, and an outgroup version of doctrine *A* described by the adherents of *B*. An important job of the researcher is to explore the possibilities of reducing these differences in order to arrive at a single version of each doctrine. This job is essentially the same whether one is comparing trends or schools in social or natural science.

What if the reduction of one version is impossible without changing

the very opinions of the adherents? What if the mutual image (for example, the communist image of anticommunism and vice versa) is an essential part of the ideologies?

The conclusion is *not* that there is a kind of basic irrationality at hand, or that we encounter irreducible perspectives when structuring the world. The conclusion is rather that the argument of one group does not convince the other group. This was a main conclusion of the UNESCO examination of the East-West ideological controversies on democracy. Some opinions are changed through dialogue and added information, but in most cases this is not adequate to the task of changing the essential parts of an ideology.

An important ingredient in descriptions of outgroup opinions is the hypothesis that the outgroup says one thing but means another. The outgroup says that it favors protecting small business against big business, but it really does not mean this. The outgroup answers that it does *really* mean it, and that the ingroup (*A*), which is its (*B*'s) outgroup, only accuses *B* of duplicity in order to discredit it. Group *A* really understands that group *B* sincerely means to protect small business.

The situation resembles that of the experimental theory of learning in psychology. The different schools—one led by E. C. Tolman with Berkeley as a center; the other, by C. L. Hull presiding at Yale—engaged in a debate in which one class of disagreements touched the very opinions of the contestants. Tolmanic views about what Hullian theory of learning actually *asserted* differed consistently and permanently from the ingroup view, and vice versa. The disagreements were never resolved. Although some might say that this shows the irrational character of theories of learning, it should be noted that essentially the same situation holds in debates about the so-called Copenhagen interpretation in quantum physics.

Clearly, any debate carried through in all seriousness may end without any major concessions from either party. This in itself, however, does not imply irrationality, bad faith, or different basic perspectives on the world. There may indeed be honest disagreement; for example, as to the *priority* of protective measures for small business under various circumstances.

The goals or values of a political program are always in conflict with one another, in the sense that maximum satisfaction of one implies less than maximum realization of another.

The maximum *persuasive* power of representation requires the presentation of a program to slur over the mutual conflict of goals and values. The maximum *convincing* power of representation requires difficult, complicated, and bulky presentations, unsuitable for mass communication. In practice, one has to meet the politicians in more or less “closed” sessions to get hold of some of the most satisfactory formulations from the standpoint of descriptive research on ideology. (In this paper I have that kind of research constantly in mind.)

I say “some of the most satisfactory formulations” because versions that are cognitively less satisfactory but nevertheless more effective are important to the understanding of how an ideology actually functions and also of how the politicians wish that it should function. They do not usually regret the effects of certain misunderstandings arising from vagueness, ambiguity, or the concealment of conflicts between goals.

The End-of-Ideology Movement, *Ideologiekritik*, and Hermeneutics

The reaction against very vague and very general political convictions is sometimes carried too far, as can be seen in the end-of-ideology movement. Raymond Aron, in his justly famous work *The Opium of the Intellectuals*, fought the “myth of the left” and “the myth of the revolution,” but he did not stress the need for deep, value-oriented ideologies that can cope with deep political, national, and global problems. Moreover, after his scathing criticisms, what did he then put forth as valid political goals for France? “To organize a genuine community between Frenchmen and Moslems in North Africa, to unite the nations of Western Europe, so that they are less dependent on American power, to cure the technological backwardness of our economy—such tasks as these might well arouse a clear-sighted and practical enthusiasm” (Aron 1957: 317–18). Today, a political ideology worthy of enthusiasm would have to dig much deeper.

It is an unfortunate misconception that the degree of fanaticism must be in proportion to “deepness.” On the contrary, an awareness of the immense distance between ultimate premises and concrete proposals for action in a definite political situation is a protection against fanati-

cism. In the long term, this awareness is something that can be fostered everywhere.

The *Ideologiekritik* movement in Germany has contributed to the interest in close relations between political views on the one hand, and vested interests, social position, and economic system or, more generally, means of production on the other. It has stressed bad faith, distorted communication, and other phenomena referred to in negative definitions of ideology. Unfortunately, *Ideologiekritik* has rarely been carried out in research programs with adequate methodological tools.

The same holds for hermeneutical and holistic interpretations of ideology, which stress basic differences in ways of understanding the world and subsequent basic, more or less insuperable differences in political language and views. Here, an overreaction against logical positivist views seems to have reduced the interest in plain descriptive comparisons of existing ideological trends.

Doctrines stating that political ideologies are irrational promote irrationality in politics. They tend to have a slightly self-verifying character. In Scandinavia the political philosophy of *Ideologiekritik*, and especially the inclination to look upon social-democratic ideology as a mere reflection of means of production or naked power constellations, has made it difficult for young people to take their opponents seriously, and thus led them to favor confrontations rather than serious debate. There can be no sincere debate when the opponent's way of understanding the issues is considered to be determined by his social position.

Conclusion

In conclusion, I would like to stress that the views defended in this paper are consistent with a serious concern about the irrational features of present-day political ideologies. Nor do these views imply an overestimation of the causal weight of ideological considerations in shaping the world. The direction of development of the rich industrial societies may be largely independent of what politicians or others are thinking and saying. To a large extent, political actions may be considered as minor adjustments to trends that are out of control. Further, in spite of the vastness of govern-

DEMOCRACY, IDEOLOGY, AND RATIONALITY

mental organizations, their power over technological trends may be rather modest.

Having made this concession not only to irrational but also to all non-rational factors in political developments, I end with a plea for plain descriptive research on ideology. It bears repeating that such research tends to confirm the predominantly rational and objective character of ideologies and of ideological debate.

The Function of Ideological Convictions

What are the main influences on the development of national aggression? This and closely related questions are raised in thousands of speeches, articles, and books all over the world. The majority of authors write as if there were a solution, as if they knew the solution, and as if they believed the wording of their solution were fit for the communication of insight to other human beings.

Excessive Claims to Certainty and Finality in Writings on National Aggression

In some cases, the authors who write with certainty and finality do so without seriously believing that their solutions can in fact claim any certainty or finality; they word their statements as they do to conform to norms of eloquence and techniques of propaganda. In other cases, though, the preten-

The three articles in this section fit together as a seamless whole. They offer an overview of Naess's work on democracy and ideological conflicts, which began with his role as the scientific leader of the UNESCO Democracy Study. It was the first major application of his empirical semantics, after his creative Truth Studies (see SWAN VIII). The first article, which addresses the UNESCO project, originally appeared in *Tensions that Cause Wars: Common Statement and Individual Papers by a Group of Scientists Brought Together by UNESCO*, edited by H. Cantril (Urbana, IL: University of Illinois Press, 1950), 257–98. The second article gives an extended survey of responses by the experts consulted and offers Naess's important and controversial overview and summary of the agreements and disagreements among the participants. The third article carries Naess's work into a general discussion of the relationship between differing conceptions of rationality and ideology.

sions seem to be seriously meant and are so understood by those hearing or reading the solutions set forth. In these instances the “solutions” do not appear to be held in a tentative way but are set forth as nothing short of statements about reality as it *is*. The solutions—whether in terms of imperialism, struggle for existence, release of irrational impulses basic to human nature, hateful propaganda, lust for power, fanaticism, or religious or political faiths, or in terms of more complex factors—are set forth without qualifying phrases carefully describing them as more or less tentative but fruitful hypotheses worth testing.

To any man searching for reliable knowledge more than for inspiring faith, the certainty claimed for such solutions is excessively high. To profess belief in such degrees of certainty against the background of the grave shortcomings of basic research in these fields is incompatible with the discerning attitude required in any science of human relationships. This holds good even if we consider that the proponents may have felt a kind of moral or social obligation to combine a cool analysis of influences on national aggression with a plea for a certain ideology or political faith.

Moreover, the exaggerated certainty, preposterous expectation, and subsequent frustrations are not the worst features of the solutions from the standpoint of those seeking to avoid action based on misinformation. Still worse is the fact that the solutions are rarely free from gross slogans and catchwords.¹ In the search for reliable knowledge, clearly stated mistakes are generally more easily eliminated than foggy generalities lacking precise meaning, because the latter are not verifiable. That they are apt to stir the emotions and control the action of men is no disproof of their uselessness in the search for reliable knowledge. A few social scientists, for example, Bryce, have even hinted that the very lack of precise meaning is a prerequisite for mass control. That may not hold good for the future, however.

Education Should Stress the Hypothetical Character of Textbook “Knowledge”

If there is any important prediction that social scientists today can make with a fairly high degree of certainty, it is the following: in tackling the problems involved in an inquiry of the present kind, answers likely to

prove tenable and likely to embody fruitful working hypotheses will be highly conditional, complicated, and piecemeal compared with most answers so far given publicity.

We may safely make this prediction not merely as specialists in certain narrow fields of science but as men seeking knowledge rather than influence. If scientists could enlist a broad consensus for the tenability of such a prediction, the ground would be cleared for an appreciation of what research can do for human welfare at large. Expectations of simple solutions make it difficult to mobilize the energy and resolution necessary for people to work with and act upon complicated piecemeal hypotheses of admittedly limited certainty.

This principle is one of the few important things that may be stressed in a short survey such as this: we need to foster a critical attitude toward “general solutions” involving pretensions of finality. Such an attitude is a prerequisite of any program for the application of social science to the major problems of our time. To foster such an attitude should be a major goal of infant as well as adult education. The tender seeds of critical attitude cannot develop and give fruit as long as the sturdy weeds of unquestioned ideological convictions are, at the same time, permitted to grow undisturbed.

It is within our reach today to counteract the undesired consequences of the tendency to have either complete or no confidence in a statement. It can be done by reforms of elementary and higher education. Graduate students, and not just those in statistics and related fields, could be trained in the estimation of weights of hypotheses. Further, the level of popularization and mass communication can be improved by a shift of content from a mere description of hypotheses toward a description of hypotheses combined with critical weight indications. There is fairly accurate evidence that the weightings tend to be ignored or lost from memory. The result is disappointment because of misled expectations. Present-day textbooks, by and large, fail to satisfy these requirements and are thus a menace to the fostering of a critical attitude.²

Social Science More Effective in Reducing Pseudoknowledge Than in Building Up New Knowledge

I decided to begin this article with a warning against vague generalities and pretensions of certainty because any article dealing with a major aspect

of the question of this inquiry, and naturally also the present paper, will easily degenerate into just the kind of proclamation that I should like to see vanish from the earth. In a short survey such as this, there is no place for adequate argumentation and precise formulations. Thus, a paradoxical situation arises. If this article is read and its intention accepted, the reader might turn against it because it does not give what the general title indicates: a description of major influences on the development of national aggression. As long as we do not have a science of popularization and condensed description, only preliminary hints appealing more to readers' imagination than to their intelligence can be conveyed in an article like this. The numerous important but piecemeal findings of the social sciences cannot be dealt with adequately. Neither would these findings as yet in any way appreciably confirm the hypotheses that are formulated in the following pages. I think, however, that they are reasonably strengthened by everyday observations and may furnish fertile hypotheses for future research.

Concluding these introductory remarks, I venture to affirm that under prevailing societal conditions one of the factors that on the whole tends to bolster large-scale aggressiveness and to block the expansion of sympathy on the international level is the *excessive reliance on hypotheses about means-end relations of social and political importance*. Theological fanaticism and credulity of former ages have largely been displaced by social means-end credulity culminating in aggressive political ideologies. In this century the largest contribution of social science to peace might turn out to be more adequately described as the *liquidation of pseudoknowledge* than as the building up of new knowledge.^{3,4}

Scientific Information on Means-End Relations Is Unfavorable to the Development of Large-Scale Aggression

Let us consider the following hypothesis: the mass of present-day *tentatively* assertable working *hypotheses* on means-end relations and on the desirability of ends are on the whole less apt to motivate large-scale aggression than the mass of present-day doctrines making claims of unconditional acceptance.

Even if this hypothesis, which I think is tenable, is judged untenable by others, there is still room for belief that the social sciences may con-

tribute substantially to the understanding of controllable factors in national aggressiveness. However, I consider its tenability an important guarantee that scientific working hypotheses about means-end relations will not have the devastating effects sometimes attributed to the “relativism,” “cynicism,” and “positivism” of our era by men like Berdiaeff, Sorokin, and others. If the assumption is tenable, we have reason for optimism about the future services of social science; its beneficial influence may turn out to be largely independent of special social hypotheses. Even if they all prove more or less mistaken, a beneficial influence may result from the fostering of open-minded inquiry, of willingness to *modify* opinions, and of basic scepticism toward pretensions of the finality of conclusions in general.

The assertion that the prevalent excessive reliance on opinion, concerning the way in which desirable social conditions can be realized, tends toward national aggression and against international understanding needs detailed documentation. After surveying the very indirect relevance of existing research, however, we find that the best characterization of the situation is that detailed documentation is not possible today.

What we should like to establish in this paper is, not so much the hypothesis of an objective, absolute norm of justice that might be taken as an aggressive belief, but of beliefs (1) that some outgroup violates justice, (2) that justice can be restored by punishing or annihilating the outgroup, and (3) that the ingroup can or even has the duty to do this. Thus, we do not so much fear the existential formulation “There exists an objective justice” (in most plausible precizations of that formulation), as formulations of the kind “We have objective justice on our side in our fight against the others” and “Our ruthless fight against them can reestablish justice.”⁵ In short, it is the attempt to *apply* principles, not the belief in principles, that is dangerous. Our concern is with this means-end form of absolutism, not with *any* kind of absolutism. We are not concerned with statements such as “God is” but rather with “God is *with us*.” Clarity at this point is of importance to the interpretation of the main theses of this article.

There is a passage in Russell’s *Freedom and Organisation* (1934) that illustrates the above distinction: “Mazzini’s conscience told him that England ought to intervene on the Continent by force of arms to secure freedom for oppressed nations, Cobden’s conscience told him the exact opposite. Both were earnest and highly moral men. Two men who both accepted the prin-

ciple of utility could argue about their practical differences, since they had a common standard, but two men who both followed the 'law of God' and found that they differed could only accuse each other of wickedness and fight it out. Thus Mazzini's ethic, which sounds so much nobler than Bentham's happiness principle, becomes, in its application to practical affairs, nothing better than the rule of the big battalions."

Mazzini scarcely believed it to be a law of God that England ought to intervene on the continent by force of arms, but he might have believed that such an intervention would be in accordance with a law of God, that it might be an application to a concrete case subsumable under a more or less general law. Now, however, there is no difficulty of principle that prevents peaceful discussions on the *applicability* of a law to concrete cases, however holy that law may be.

If both Mazzini and Cobden were absolutely convinced of Bentham's happiness principle but made with complete confidence opposite application of it to the question of English intervention on the continent, such a situation might perhaps just as well lead to a "solution" by big battalions as would exactly opposite views based on moral intuitions and alleged laws of God. The basic issue would be their confidence in their own conclusions, not the kind of principle adhered to.

What Russell, in our view, might say in favor of the happiness principle is that *attempts at rational application* of that principle to concrete cases more probably lead to solutions held as tentative working hypotheses than do attempts at application of theological principles. Our thesis is not that national aggression would no longer take place if means-end hypotheses were properly weighted and action were based on the result. We only predict a decrease in trends toward such aggression. A more radical statement of the thesis is hinted at by Hitler when he says that *only* "fanatical belief" of some kind can make men find it justifiable to use "the most brutal weapons" for their aims.

Does a Critical Attitude Make for Indifference in the Face of Aggression?

Some might well agree to the assertion that tentative working hypotheses constitute an unfavorable basis for inducing men to join programs of large-

scale aggression, but might at the same time be prone to maintain that attitudes fostered by research are unfavorable to every large-scale effort and are therefore unfavorable to large-scale resistance to violence. A critical attitude fosters indifference, it is said. "Doubt weakens the will." The behavior of interval Social Democrats in Germany is often cited as evidence of how people highly educated in self-criticism and means-end opinions are unable to halt waves of aggressive opinion. To oppose effectively such waves and to motivate protracted and intense action in general, people need strong, steady motivation. The cool weighting of science undermines and makes impossible such behavior, it is maintained.*

Here we touch a basic point concerning the function of scientific information on the one hand and the function of contemporary ideologies on the other. We shall therefore try to word our point of view somewhat more carefully than usual in this article.

A distinction must be made between faith in ultimate ends and values and faith in ends that we accept because of the relation they are supposed to have to ultimate ends and values. Social science has by definition nothing to say directly for or against any value judgment that we deliberately pose as an ultimate premise to all or a certain part of our means-end thinking.⁶ *There is no inconsistency between a strong will to realize an ultimate end and extreme criticalness toward each particular means proposed as conducive to that end.*

If a man or a rat is hungry and uncertain about how to get food, this may induce him to energetic action in various directions. The man will normally form verbalized hypotheses that are tried out, one by one. Roughly speaking, the hungrier both are, the more energetically they will try out various means. To generate and maintain eager search, it is not necessary to be absolutely certain of the reliability of a particular means-end hypothesis—for example, one stating that a certain alley in a labyrinth leads to food.

The belief that only unconditional acceptance of hypotheses can moti-

*Against the use of the argument concerning interval Social Democrats to support this thesis it may, for example, be argued: There was among them uncertainty about fundamental aims rather than about means. There was even acceptance of ideological doctrines teaching that evaluation is "unscientific," that no value judgments can be derived as conclusions from premises expressing knowledge.

vate strong action is frequently mixed up with certain beliefs about the "crisis of our age." The extreme success of Western society in procuring means to greater production and to a higher material standard of living has turned attention away from ends and their hierarchical order, thus leaving many people without those steering mechanisms that only clarification of means-end relations and faith in ultimate ends can furnish. In saying that Western society has been successful in procuring means rather than ends, we wish to indicate that it has been particularly successful in procuring what has nearly universally been thought of as instrumentally, rather than ultimately, valuable. Without some basic conviction about which ends and values are lofty enough to be accepted as ultimate, the critical attitude toward means-end hypotheses will result in a lack of motives for strong and protracted action. This will hardly be denied by anyone. Then, however, the so-called crisis of scepticism and relativism is not necessarily caused by a critical attitude toward social means-end hypotheses but may owe to unawareness of norm hierarchies and to the consequent lack of steering mechanisms for social behavior.

Thus, the above argument may be answered by the assertion that wholehearted *belief* in ultimate values *in addition to critical and tentative* acceptance or rejection of means-end hypotheses can make up a motivational basis for intense and protracted action. Metaphorically, our argumentation can be reformulated thus: a cool head can never make up for a warm heart, but neither can a warm heart take over the functions of a cool head. Cool-headed manipulation of questions about *how* to realize basic values is necessary to successful action on their behalf.

There is a relation between the state of alarm and tension within a society and the limits of socially approved critical-mindedness. The limit is narrowed down in times of supposed crisis, and above all during wars. One of the reasons for these attempts at crippling man's capacity for intelligent deliberation seems to be the fear of decreases in the intensity of motivation. To continue the metaphor, the reason that tentative means-end thinking is tabooed in wartime is not so much the fear that it will weaken the will of the coolheaded as the danger that it will reduce the efforts of the muddleheaded and of those who are cool at heart; the capacity to act on uncertainties is not judged to be very widespread. The question of whether such a taboo is an effective means for military or other ends can only be answered by future research, not by speculation or propaganda.

Is Social Science Allied with “Nihilism” and “Relativism,” and Does It Thereby Contribute to the “Crisis of Our Age”?

It is the opinion of millions of people that further development of science will aggravate the present moral crisis and that its position in a future society will be less dominant than it is today. A future stage of humanity is believed soon to be reached, which will be characterized—as the European Middle Ages were—by firm, nearly universally held convictions on fundamental ideological principles as well as their applications. Empirical methods and even empirico-scientific criteria of truth would be disregarded or used within much narrower limits than today.

We mention this kind of interpretation of the “crisis of our age” because many contemporary social philosophers and some sociologists have developed similar doctrines. A conspicuous example of the latter is Pitirim A. Sorokin (1941: 231ff), who predicts that within the framework of the contemporary (sensate) culture, society, and man, no elimination, even no substantial weakening of group tensions—economic, racial, ethnic, occupational, and others—is possible. In a future framework, the weakening will be affected by forces other than social science.

When social science is made responsible for or considered typical of “decadent” Western thought, this cannot reasonably be justified by pointing to the absence of fundamental norms proclaimed as valid by assertions within social science. Justification of such norms would lie outside its scope, just as it lies outside the scope of artistic activity. To this most scientists agree, but whatever the basic evaluations may be—whether religious or nonreligious—there is need for research on means-end relations. If no misconceptions about the scope of the sciences are used as premises, it is difficult to see how one can arrive at the conclusion that social science is detrimental by its “relativism” or “nihilism.”

Ideology and Ideology Research

The above argumentation leads us into the difficult realm of ideology research, a convenient name here used for research on highly stable clusters of opinions, believed by their adherents to represent coherent doctrines capable of justifying group action. In cases of political action, we speak of political ideologies.

The word *ideology* has never designated any well-delimited class of phenomena. It has a slightly dyslogistic function, comparable with but probably less intensive than the word *propaganda*. As here introduced, it may roughly be said to comprise both ideologies and utopias in the terminology of Mannheim. As used here and by some other authors, the ideologies or, in a more general way, ideological doctrines consist of clusters of (1) ethical or social norms or principles and detailed codes of behavior; (2) politically relevant hypotheses, especially means-end hypotheses; and (3) verbal stereotypes with no fairly precise meaning, but influencing controversies within and between nations.

The ideological doctrines are normally set forth with emphasis on certainty and finality, and they claim to command respect in the way that religious faiths usually do. As examples we might take argumentation patterns in defense of capitalism, the liberalism of John Stuart Mill, Marxism, syndicalism, Leninism, fascism, anti-Semitism, and the Americanism of the Thomas committee.⁷

Ideologies play a decisive role in the mobilization of public opinion, a process of vast importance in preparations for modern war. We shall, therefore, take a brief look at the field of ideological research viewed as a part of future social science.

One of the objectives of social science is to describe and classify ideologies in terms of their doctrinal contents; another aim is to "explain" them in terms of their function in society: how and why they are built up and how and why they change in correlation with economic, social, and cultural factors. A classical work like Dunning's on the history of political theories serves the former aim to a large extent. Series of works of Hegelian and Marxian inspiration attempt to serve the latter. Among the notable works in the latter field may be mentioned Charles Beard's *Economic Interpretation of the Constitution of the United States*.

The vast majority of publications on ideologies are themselves partisan descriptions. They are mainly concerned with "goodness" or "badness" even if masquerading as pure descriptions. Nonpropagandistic study of ideology is an almost virgin field. It can be extensively cultivated only in societies in which social pressure against disconformity with the dominant ideology does not intimidate researchers and those responsible for their financing. This requirement excludes practically all contemporary societies.

The following are some keywords (not necessarily expressing doctrines) having important functions in ideological controversies and crusades. We mention them just to remind the reader of the vast infiltration into social life of faiths and doctrines defended as indisputable by some people. We have, for example, Americanism, anarchism, anti-Catholicism, Aryanism, Catholicism, Christian democracy, fascism, humanism, individualism, internationalism, liberalism, my duties as a good Afghan (Australian, Austrian, Belgian, Bolivian . . . Venezuelan), nationalism, Nazism, nonviolence, Nordic way of life, planned society, positivism, radicalism, relativism, scientific attitude, socialism, syndicalism, the rights of the individual, and the system of free enterprise.⁸

The slogans listed here stand for complexes of valuations and descriptions intricately and vaguely intermingled. For example, anti-Semitism may, as an ideology, be said partly to consist of *descriptions* of supposed characteristics of Jews as a more or less vaguely delimited class of persons. Further, it consists of doctrines stating *how* Jews may be eliminated from having the influence, etc., they are supposed to have. These descriptions are means-end hypotheses. Lastly, there are in anti-Semitism as an ideology more or less implicit norms: valuations justifying the elimination of Jewish influence and condemning the characteristics attributed to them as being of negative value. Sometimes these norms are such as are held by most people, whether anti-Semitic or not: for example, the norm "You should not cheat." In such cases, it is the strong belief that certain groups violate the norms, and the manner in which that belief is held—for example, moral condemnation of doubters and scorn for unbiased investigations—that makes us class the beliefs as ideological.

In other cases it is rather the value judgments that are characteristic of the ideology. Thus, in fascism fighting as such, apart from goals, is considered a value; and in anti-Semitism, we find the norm that race discrimination is socially and morally justified.

Given the prevalence of descriptions and means-end hypotheses, scientific research is highly relevant to the acceptance or rejection of ideologies. The likelihood that an ideology resting on uncritical assumptions and prejudices will prevail will diminish perceptibly if research and dissemination of its results are given free scope. This may be one of the reasons that the scientific attitude is so much distrusted by people strongly believing in the elements of their descriptive ideologies.

To What Extent Do Ideologies Function to Organize and Justify Aggression?

The expressed contents of an ideology are important for its aggressive potentialities. If an ideology glorifies national conquests and wars, its influence must of course be expected mainly to be toward national aggression. Even if an ideology does not openly advocate aggression, however, it may be apt to foster militant views likely to prevent nonviolent settlements of disputes. Certain features of Buddhist and Christian ideological patterns are expressly nonviolent and favor consistently nonaggressive modes of settling conflicts, but considered as wholes and viewed in the context of their function in the life of societies, they are among the dominating ideologies that stress the wickedness, injustice, and inferiority of outgroups and that use hatred to pave the way for violence.* Political and social ideologies, *as they operate today*, seem to be instruments of organizing hatred rather than benevolence. Religious ideologies that cherish nonviolence in theory may function to reinforce the trend toward violence at times when political ideologies have contributed to the creation of a sufficiently tense atmosphere. This function may be studied by content analysis of preachings before and after declarations of war. There are, on the other hand, many examples of the opposite function of religious ideologies: that of reconciling conflicting groups. Thus, the Norwegian State Church that in 1945 strongly supported the large-scale punishment of quislings has more recently worked for less aggressive treatment.⁹

Aggressive intentions release more energy for efforts of justification and rationalization of action than do benevolent ones. Thus, the technique of building up impressive superstructures of principles and means-end doctrines is to a large degree used for the rationalization of demands that seem most easily satisfied by fighting or oppressing other peoples. Benevolent intentions do not need elaborate ideological superstructures.

We have already tried to establish the point that the exaggerated certainty of means-end hypotheses, and the invocation of moral indignation in case their certainty is questioned, on the whole works toward violence, non-cooperation, disbelief in arbitration, a high-handed attitude toward new information, ignorance of the opposition's view, and self-righteousness.

*As forms of violence, we class any use of physical compulsion.

Closely related to the blinding influence of absolute convictions is the influence of thoroughgoing vagueness and ambiguity in preventing any testing and any formation of coherent doctrine. If opinions are couched in sufficiently vague and ambiguous slogans, the absence of meaning is not perceived, and they may be used rather independently of whatever happens. No testing is possible when nothing definite is described or predicted, so whatever is found to be the case the adherents may stick to their “faith.” This means in practice the reinforcement of certain patterns of action that are habitually associated with slogans.

The Function of Ideologies in Cementing Ingroups and Making Outgroups Seem Remote and Wicked

How can thoroughgoing, vague, and excessive claims on certainty be upheld in an age said to distinguish itself by “scepticism” and “relativism”? How can such claims survive in the face of the rising prestige of tentative working hypotheses in natural science and the world of technical knowledge?

Much can be learned here from research on the effectiveness of commercial advertising, on propaganda and suggestibility. The applicability of many findings in these fields would not be contested—except when applied to the particular ideological patterns supported by the subjects asked.

For present purposes, some of the findings may be summarized as follows:

1. Mere repetition of a slogan tends under many conditions to make it more acceptable, that is, tends to reinforce patterns of action that those promoting the slogan wish the public to display.
2. Expression of firm, unshakable conviction on the part of the promoters of a cluster of opinions tends generally to enhance the effect—even if the public in reflective moods does not think the opinions plausible.
3. Sentences set forth by the promoters in a manner and in a context suggesting that they are fairly precise assertions, may be reacted upon as if they had those characteristics, even if closer analysis reveals a high degree of vagueness and ambiguity, making them unsuitable for rational discourse.

DEMOCRACY, IDEOLOGY, AND RATIONALITY

There are, however, features of commercial propaganda and advertising that limit the use one can make of them for understanding how ideologies are believed in and fought for. All manufacturers of, say, beer or radio sets have interests in common that are clearly seen and that in part explain the moral codes forbidding direct attacks on each other's products. There may be common interests among absolutist ideologists too—I think they are important and make “consumer research” of ideologies very desirable—but the common interests are inconsiderable and difficult to analyze. This makes it profitable for the ideologists to exploit an extremely potent realm of antagonisms not available to the commercial advertiser. It is commonly held by students of social and political movements and by historians that antipathies can be more easily evoked and are more powerful stimuli for action than are sympathies. However difficult it would be to confirm such contentions in a fairly precise way, what at least seems clear is a prevalence of “anti-” content in most ideologies. They are tools for fighting *against* something rather than *for* something.¹⁰ They create outlets for aggression rather than for cooperative behavior.

To understand better the function of ideological convictions it is useful to examine some hypotheses on the function of ideology in intergroup conflicts. The hypotheses are usually accepted as adequate as long as they are made to bear upon ideologies other than those toward which one is himself sympathetic. Hitler is one of the few who admitted some of the functions of ideologies to hold good even of his own tactics.

Suppose a large number of people find that they have some basic interest in common for which they are willing to fight, in the sense in which pressure groups and parties can be said to “fight.” If the group is to act in an organized, persistent, and determined way, it is important to consolidate, to *gleichschalt*, it, to make its members aware of a common and strongly demarcated frontier toward people of opposite interests. The narrowness of vision that seems to be a requisite for joint action by large, unevenly informed masses can be maintained only in this way. It may also be necessary to make some people join the action who do not have a strong interest in common with the others. Now ideologies and all sorts of isms and stereotyped catchphrases with strong and persistent emotional associations within the group are highly adapted to the purposes of consolidating and enlarging the ingroup and creating hostility toward the outgroup. The

members of the ingroup get a platform that they share and that they can cherish as a common basis for *justified* action. A cleverly distorted picture of the outgroup provides the maximum of justification for fighting it.

All differences between ingroup and outgroup must be strongly emphasized and therefore tend to be grossly exaggerated. For this purpose, tendencies to give fair statements of the views of opponents are thwarted and regarded as acts of treason or signs of weakness. Of special importance is the slanted description of morally relevant traits of the outgroup. Attempts at fairness tend to be scorned as indicating lack of loyalty, hairsplitting, or lack of devotion to the great cause. To make schisms appear simple and straightforward, it is important to slur over the structure of the outgroup, so that it looks like one compact homogeneous group. Public attention has lately been drawn to this trick because of the worldwide misuse of words like *democratic*, *communist*, and *fascist*.¹¹

Consolidating and fortifying the ingroup is likely to require a vague phrasing of the program or faith; in this way ingroup differences can be downplayed. There may be precision only at crucial points referring to action: for example, "Vote for Mr. X." This precision we usually find when particular measures are to be taken against outgroups.

The above description of some aspects of how ideologies are built up in the verbal warfare of groups would probably be subscribed to by most people in the abstract, but would be differently applied in concrete cases. It has become fairly clear that even allegedly nonpartisan institutions such as the Institute of Propaganda Analysis have tended to "discover" trends toward distortion only in some groups, and that that did not include groups represented more or less indirectly by the institute. Thus, the eagerness to accept any "debunking" views on ideology is considerable, but implicitly it is accepted only as describing adversaries. What is needed in this grave situation is a fairly exact science of controversy and ideology construction, so well based on relevant observation that conclusions cannot easily be dismissed as biased. As long as there is no such science, analysis of controversy and ideology will itself continue to be biased and partisan.

The analysis of ideologies as they function in consolidating ingroups and alienating outgroups cannot be undertaken by persons belonging to either the ingroup or the outgroup. Even when the analyst is independent of group loyalties, it is a complicated job to disentangle gross exaggerations

from fairly unbiased descriptions of differences of opinion. To accomplish this job, we need the tools that are being worked out under the name of "content analysis." It is adapted to the situation in which members of one group give distorted rendering of the opinions expressed by members of an outgroup, for example, a slanted newspaper report by group *A* of what a leader of group *B* said in a certain speech. So far, content analysis has been used to study relatively simple structures, but it may in time prove useful for ideology analysis.

The Tendency to Exaggerate the Philosophical Profundity of Ideological Conflicts

The doctrine of Marx and Engels on superstructures, Pareto's statements on derivations, and the application to ideologies of Freud's theory of rationalization of motives may all be made use of to reduce radically the claims of ideologists to fight for certain commonly accepted values believed to be expressed by words and phrases such as *justice, the well-being of the people, progress*, and so on.

These "reductivistic" theories of ideologies may themselves be analyzed as ideologies. They are not conclusions reached by large-scale, patient research. On the contrary, they have been shaped as tools of ingroup conflicts.

It is a formidable task for future social research to investigate the meaning and validity of theories asserting that a conflict is not "really" about what the participants claim it is about. Today very little can be said about the outcome of such research.

The following are some hypotheses that seem to merit further testing. If two groups have conflicting economic or other fairly easily observable interests, each group can, and usually does, try to enlist neutrals to support its fight against the other group by involving objectives that it can expect the neutrals to be willing to support. Thus, if the narrow interest of power, domination, or prestige of a certain group is by this same group considered compatible with certain broader interests such as the well-being of the citizens or the dissemination of a certain religion, the group will look for arguments enabling it to describe its fight as one for these broader objectives. There is, then, a constant search for objectives that can cloak the basic ones and thereby (1) relieve ingroup members of a sense of guilt and give them a

common platform that is socially acceptable and (2) induce people to join them who do not have the basic interest in common with the ingroup.

Thus, narrow partisan interests *may* be encapsulated into impressive superstructures so that the conflicts of interests seem unimportant compared with the ideological issues at stake.

Only future research can give us methods for analyzing ideologies from this point of view, however, and let us judge the extent, if any, to which a particular ideological conflict is built up as an enormous superstructure hiding some definite basic interest of a relatively small group, compared with the total number of people involved in the conflict. Large views of political philosophy, morals, national history, etc., may be made relevant to any conflict and even pretended to motivate the campaign independently of the narrow clash of interests. That clash tends to be looked upon by the ideologists as merely a consequence of some profound schism between out- and ingroup. On the international level we might be tempted to use the conflict between the United States and Spain in 1898 as an example. The United States invoked a deep ideological reason for rescuing Cubans from the unworthy Spaniards, and Spain invoked the ideology of national honor to justify its position. A clash of power interests, however, seems to have been at the root of the conflict.

However dominant economic and related interests *may* have been in particular, perhaps in nearly all national and international conflicts, it has so far not been possible to gather sufficient relevant material to confirm hypotheses about such dominance in a fairly reliable way. There is no science of group motivation in conflicts. On the commonsense level of rough vagueness, I think one can take a stand against any one-factor theory. Causes of war have been of very different kinds. This is the conclusion of such students of war as Quincy Wright. The conclusion seems particularly tenable if we think not just of motives and causes *precipitating* war, but of factors linked by chains of motives and causes for the outbreak of wars. When we stress that the development of a *science* of these things is urgently needed, it is not so much because of the shortcomings of reasoning on the commonsense level as it is because of the misuse of professional theorizing as part of group controversy. Pseudoscientific theories such as social Darwinism have, where properly exploited, misled public opinion and will probably continue to do so until discredited by large-scale research.

One of the chief contributions of ideology research would be to show how issues in contemporary ideological conflicts are, through biased argumentation and excessive and vague unhistorical generalizations, made to appear of great moral and philosophical consequence. On the whole I venture to say that if the conflicts were divested of the superstructure of hypocritical moralizing and philosophizing, they would not be found to involve conflicts between divergent philosophies, in the sense of conflicting ultimate values or ultimate principles of knowledge. It belongs to the tasks of today's philosophers to oppose the misuse of their terminology and methods to make narrow conflicts of interests look like philosophical conflicts.

If the issues are trivialized, influences toward violence and group hostility may be reduced.¹²

These opinions on the comparative triviality of contemporary ideological conflicts from a philosophical point of view are not, and cannot be today, based on extensive research. This also holds good, of course, for any negations of the opinions. The grave danger in the present situation is that a greater and greater part of mankind is being made susceptible to ideologists speaking with certainty about problems that have not yet been attacked by reliable methods.

Dangerous Aspects of Ideologies Fostered in Schools

What about the effects of the work of ideological clarification? Will not whatever positive value it may produce be blotted out by the devastating frustrations brought about by the propagation of its results? If education continues to give us strong implicit expectations of simplicity, certainty, and permanence in means-end relations, then our answer would be yes. If we by all means of biased communication and public opinion pressure go on trying to bolster such expectations—yes.

Any training adapted to the needs and insights of our times should emphasize the risks of error and bias and the prevalence of low levels of precision in historical and social descriptions. As a contrast, look at any history textbook at nearly any page and note how fluently and convincingly causal relations are set forth, explicitly or implicitly.

Between the world wars various international institutions took up

textbook revision as part of their program. In the future such revisions should eliminate not only nationalistic exaggerations but also any form of crude violation of the principles of critical attitude. There is scarcely any field in which international understanding can be more directly and intensively served than in the preparation of textbooks.¹³ The shortcomings of most contemporary texts are so obvious that sabotage of attempts at revision cannot be easily rationalized.

A Science of Communication and of Description of Value Systems—Its Use in the Clarification of Conflicts

In ideological research, the role of communication in stirring up emotion and in the *Gleichschaltung* of public opinion cannot be studied reliably without the help of scientific tools that neutralize to some extent the bias of the social scientist himself.

It is no longer necessary for social science to make the public aware of widespread misuse of one-sided, exaggerated, and malicious descriptions of social and international problems. The role of science will be the much more difficult task of opening the public's eyes to *ingroup* misuse, that is, to the misuse by persons having approximately the same opinion and main interests as oneself in a particular conflict. As regards the outgroup, the tendency to find that its members are biased and indulge in vicious, misleading representations is all too well established. The tendency is cultivated as one of the favorite tricks of contemporary ideological discussions.

To convince ourselves by rational means that some of our own presentations of outgroup views are misleading, and that some of the outgroup's presentations of our positions are not, we must summon not only great detachment but also large amounts of scientifically analyzed observational material. Only a beginning has been made to substitute propaganda against propaganda with a discerning tool of analysis suitable for scientific studies of communication, whether outgroup or ingroup.

The task of constructing fairly neutral descriptions of ideologies faces even greater obstacles, because many people, even if they belong to different and hostile groups, have in common a fear of "objectivity," a belief that the masses are unable to take a stand if issues are not oversimplified and

made emotionally stirring. In spite of the prevailing mistrust of “vague generalities,” “evasive talk,” “big words,” and so on, there is not much eagerness among people of influence to give fairly objective versions of out-group opinions and actions.

Fundamental, Nearly Universal Norms and Attitudes Favorable to International Understanding

On the basis of psychological and sociological findings, we can very tentatively confirm the daily observation that human beings do not intentionally make each other suffer prolonged pain except in very limited kinds of situations in which they think it necessary for self-preservation, or in which they react to frustrations of such intensity that we may class them as highly abnormal. We may rely on reactions of sympathy so strong that large-scale aggression among people who are fairly satisfied as regards primary needs (food, water, shelter, sex, etc.) must be carefully organized and built up by devices such as indoctrination and isolation against contact with the antagonists. Only by such efforts can aggressive tendencies be mobilized that are sufficiently strong and widespread to counteract the reactions of sympathy.

The basic reactions of sympathy have their normative counterpart in humanitarian ethical principles believed to be valid *except* in cases in which aggression for some reason or other is conceived to be necessary. It is definitely not the other way around, viz., that aggressive principles are conceived as basic and the norms of benevolent action as exceptions to the rule.

If any particularly deep-lying influence toward international understanding should be stressed, I think it is the influence of sympathy as an immediate reaction and as a verbalized norm. Much work for international understanding can be conceived of as efforts toward removing obstacles to the free flow of sympathy reactions.

The existence of the basic reactions and norms of expansive sympathy makes it probable that all or most ideologies should show traces of them, however well concealed. In fact, this seems to be the case: though the description and propagation of political ideologies usually give predominant emphases to their aggressive and isolating elements, there are usually or always elements in them that are common to all and that recognize basic norms of benevolence.

Basic Agreements in Ideologies

A powerful but insufficiently advertised influence toward world cooperation is the far-reaching similarity of basic principles within the main political ideologies of today.¹⁴ Perhaps because of the interests in portraying outgroups as essentially different in principles of social and moral thinking, similarities have been largely ignored.

Communism, anarchism, syndicalism, and liberalism—in various forms and connotations—have in common as an ultimate, or at least as a fairly basic, aim the abolition of organized coercion implemented by brute force. Instead of the *Zwangstaat*, a society is conceived in which the members form groups voluntarily and settle disputes peacefully. In the famous wording of Engels, the state will wither away when certain grievances that now foster class antagonisms and imperialism are finally eliminated. In the various forms of anarchism, the organized and legalized use of brute force is stated to be an unconditional evil: it should be abolished if a peaceful society is to develop, with cooperation on a worldwide scale. According to various forms of liberalism, the system of free enterprise will result in such a high standard of living that everyone willing to work will have his needs satisfied, and therefore no incentives for organized violence will be found. The state should be nothing more than a polite force defending the individual's rights and liberties. No state activity would be needed to create economic security or for other economic or social purposes. Even in Nazism, such organized cruelties as genocide are conceived of as necessary evils inflicted for the purpose of a new society that does not provide for organized infliction of pain other than as part of sport activities.¹⁵

There are still groups who believe not only that some people will meet a future eternal hellfire but that they ought to endure it as a punishment. Even if it turned out that such predictions and such norms can only find acceptance because of sadistic impulses, there is no reason to believe that people other than sadists in a psychiatric sense would find conditions satisfactory in a utopia in which their enemies already had been roasted for a thousand years. Even in a Teutonic utopia like Valhalla, killing had a sportive character, as might be inferred from the resurrection each night of that day's victims. There is nothing to indicate that a person who should happen to prefer peaceful entertainment would have to take part in the

fighting. There is in the Valhalla ideology much room for violence against persons, but *on a noncoercive basis*. If wars only affected those who deliberately wanted and liked them, we should not have a “problem of wars.”

Thus, there are in contemporary and past ideologies few traces of anything like a depiction of national aggression as ultimately desirable. If organized coercion and violence are glorified, it is done largely in terms of their instrumental value for the perfection of races or societies.

The ultimate goals of political ideologies are generally very vaguely described. This is particularly the case as far as ultimate forms of society are concerned, and the vagueness and incompleteness seem to have a function similar to the corresponding character of descriptions of heaven in Christianity. Eulogistic and positive terms are used profusely; the conditions are described by words such as *joy*, *happiness*, *fulfillment*, and *perfection*. There is no exploitation, no coercion, no violence, no poverty, no selfish motives, no need for exploitation, and so on.

The steps to be taken to realize the utopian (the future, imagined states of) society are also left vague and incomplete *except insofar as first steps go*. These steps, which largely have a character of means rather than ends, are described in concrete terms, and the hypotheses of their success are—as mentioned in previous sections—given excessive credence. It is on the basis of such first steps that different ideologies are judged incompatible: ideological controversies are largely made up of mutual denunciations of immediate programs, as well as of mutual defamations of the sincerity of proclamations on further aims, including ultimate ones.

The proportionality between vagueness and level of aims in the means-end hierarchies may in part be explained by the prevalence of rather narrow and immediate aims among those who try to shape ideologies to suit their group interests.

However important for any long-range peace effort, the similarity and compatibility of ultimate goals as pictured in ideologies does not in itself give us important clues for the reduction of current major tensions. The insistence of the leaders of ideological groups that those in the opposing camps have radically different ultimate aims is a minor effect of those tensions rather than a cause. If research can be centered on the function of ideologies to mislead great numbers of people to work for the selfish interests of narrow groups, the vitality of an important source of organized aggres-

sion may be reduced. This would, first of all, imply detailed analysis of the means-end beliefs to clarify their highly hypothetical character, and second, imply a comparison of ends without distorting the contentions of out-groups.

Such research cannot, however, directly reduce the clashes of interests of the groups that use ideologies to mobilize peoples and institutions on their side. Neither can it reduce the aggressions rooted in unsatisfactory living conditions. The aim of reducing national aggression and increasing international understanding brings us into a larger sphere of problems than that tackled by ideological research as emphasized in this article. It brings us into economics, sociology, psychology, and history, where influential factors can be tentatively identified. The discussion of such factors lies outside the scope of this contribution. Some words will be said, however, about the interconnection among various factors.

Causal Weight of Factors Influencing National Aggression

Time and energy are easily wasted in discussions of the relative importance of various influences on national aggression. It should be borne in mind that what can be expected from social scientists is primarily hypotheses about certain interactions of factors under postulated conditions that are very difficult to compare with "actual conditions" in the world at a particular moment.¹⁶ Thus, under some conditions increases in mutual sympathy and understanding and in economic security and equality may be factors interacting with others so as to precipitate war. Churchill, among others, seems to mean that under the particular conditions in Europe between the two world wars, pacific temper, benevolence, and economic security influenced England and France, especially through leaders such as Neville Chamberlain, to adopt a policy by which a great war was precipitated in 1939 instead of no war breaking out at all or only a small one in 1935, 1936, or 1938.

The expressions *on the average* and *on the whole*, as used in this survey in statements about the way in which factor *x* influences national aggression, have no place in more exacting descriptions. We are in possession of, or we can get, immensely more information on factors operating under rather narrowly and precisely delimited sets of conditions. It is on the basis of ten-

tative hypotheses about the frequency of such sets of conditions and about their similarity to those prevailing at any moment that we should determine which factors should be deliberately strengthened by individual and group action.

In this connection, I should like to stress yet another methodological difficulty in the evaluation of answers to questions about influences on national aggression: Churchill's insistence on the causal role of pacifism and goodwill in the development of World War II—rather than, for example, militarism in Germany—probably owes to his belief that the policy of Great Britain might in 1935–1939 “easily” have been otherwise; if men sharing Churchill's convictions had been in power, there would have been no war. Thus, Churchill labels World War II “the unnecessary war.” In general, answers to questions about influences on national aggression are, however contradictory they may look, rather complementary or mutually independent, because the criteria for calling factors “causes” of or “influences” on national aggression include, in practice at least, criteria such as the following: (1) Human beings might have given events another course by eliminating or changing factor *x*. Thus, the likelihood that we could have changed certain features makes us picture those features as preeminently important. (2) If a factor is conspicuous and easily observed, it is counted as causally more important than if it is inconspicuous. The stage of industrial development, or more generally, the stage of the means of production, is considered extremely important in the history of civilization, partly because it is so easily observable. Any particular set of conditions precipitating a change in industrial development might in theory be considered just as important, but such conditions are often left unmentioned because they are more complex and more difficult to observe and describe. Such conditions would include the state of science, the organization of scientific and administrative work, the intelligence and emotional states of scientists, the stability of the economic and social status of the workers making the tools, and so on.

Against this “relativism” in our attitude to the hypotheses of degrees of influence, it might be objected that it would undermine the now fairly well established maxim “There is no biological basis of war.” That maxim, however, is only a vague popularization of well-established hypotheses of the following kind: “there are no biological factors that persistently influ-

ence national aggression, however economic, social, and psychological conditions are altered.”*^{17,18}

*In signing the *joint statement* I have subscribed to some very general—and necessarily rather vague—statements on the subjects of the present inquiry. Paragraphs E, F, H, and the last part of C deal with issues discussed in the preceding pages in terms of ideological conflicts. In the light of what I have said on the relativity of causal weighting, it would be misleading to speak of economic or psychological or any other particular class of factors as the “real” or “main” influences on national aggression. I should maintain, however, that an organized battle against certain fairly general features of ideologies, such as their claims on finality and certainty and their more or less deliberate vagueness, ambiguity, and distorted outgroup descriptions, may result in a sort of mental disarmament that makes appeals to large-scale aggression less effective than they have been so far.

A Plea for Pluralism in Philosophy and Physics

The impact of science on society and on the individual is today of such an order that any view or vision of the world and humankind labeled unscientific by authoritative scientists or philosophers of science has little chance of being enjoyed, expressed, or made an object of serious logical and empirical research. Among such worldviews, too easily ignored by admirers and philosophers of science, I have particularly in mind those conventionally classed as not empirical or not rational, including a list of philosophies inspired by the Dane Søren Kierkegaard and by the Germans Georg Hegel and Karl Marx, but I also have artistic visions in mind, such as those of the best science fiction.

To people with different visions, one and the same scientific result means something different. They agree completely on an “object level” but may disagree completely on the “metalevels.” The differences might be part of the domain for serious metascientific research, but little has been done so far. It is a great task to help verbalize and conceptualize such visions so that others can see human beings, the universe, and world history with the coloring specific to a particular vision. Without deep engagement and serious research, we tend toward eclecticism, traditionalism, incongruence, “grayness,” and incompleteness (partiality) in our views.

My plea for a multiplicity of precisely formulated views in the philosophy of science is not an invitation to physicists to engage in vague specula-

This article was reprinted with permission from *Physics, Logic, and History. Based on the First International Colloquium held at the University of Denver, May 16–20, 1966*, edited by Wolfgang Yourgrau and Allen D. Breck (New York: Plenum Press, 1970), 129–46.

tion or to take seriously what this or that philosopher—for example, Marx, Hegel, or Kierkegaard—has said about science or what he has intended to be answers to scientific problems. It is first a plea for extreme vigilance in distinguishing intersubjective, intercultural results of physical research proper from interpretations of those results within a framework larger than professional, technical, physical science. Second, it is a plea that all different, mutually inconsistent interpretations such as are suggested—but practically never more than suggested—by competent physicists and philosophers of physics be elaborated with painful clearness and in detail. An opposite plea would be for an immediate decision about what is true and what is false when one uses, for example, traditional, vague formulations of so-called operationalism, pragmatism, rationalism, dialectical materialism, idealism, and so on.

The world of personalities, of consistent personal perspective, is today still a colorful world, immensely satisfying to contemplate in its unbelievable variety. It would be disastrous to use the prestige of science to lay down limits and exclude some worldviews not refuted by science, or to call them irrational or intellectually dishonest because they are inconsistent with a definite “correct” philosophy of science proclaimed to be the only valid one. The same holds for metascientific views considered testable but not yet tested by genuine interpersonal and intercultural methods.

After all, the carefully formulated *results* of genuine scientific research are largely neutral toward differences in worldviews as long as these concern fundamentals: there is always room for differences in ultimate rules, valuations, premises, and postulates. As long as we do not have any established criterion for testing different metascientific theories concerning the completeness of a theory (for example, quantum mechanics), why not work out different views of completeness in all preciseness and detail instead of trying to promote just one view that is not even stated clearly?

Let me sum up what I wish to communicate so far: Comparability of worldviews requires precise formulation. Precisely formulated, basic positions are mostly seen to involve different assumptions and postulates. Attempts to point out the “true,” “correct,” or “valid” are futile in such cases. Pseudorefutations promote conformity, leaving us with colorless world pictures devoid of inspiration from visions.

Now let us offer some words about the use of the term *fundamental*, or

basic. The degree of fundamentality of a position is relative to the status of the discussion and research at any given moment. Roughly, those propositions, rules, or norms are ultimate that make up the last links in argumentations. If mathematics, as suggested by Lakatos, has no foundations outside itself, certain purely mathematical propositions and rules will be fundamental to any comprehensive position within mathematics. Philosophy of mathematics will then take over, however, asking, *Why* does not mathematics have any foundation outside itself? If the answer is considered a satisfying one, the questioner comes to a rest. There are questions, though, that lead us farther, namely: What is a satisfactory explanation? Which are the criteria of a true or good explanation, and are there ways of testing its truth or goodness? Now we certainly are outside physics, mathematics, or history, and our argumentations lead us to take up positions that I would call ultimate, basic, or fundamental—without in any way implying that there is any eternal or absolute resting point in questioning.

The tolerant and liberal attitude in philosophy of science serves the interest of keeping alive and working out in detail views that as yet cannot be intersubjectively and decisively tested.

Let T_1 and T_2 be different theories of explanation, with both descriptive and prescriptive components. What would constitute tolerance and liberalism in relation to them? If P is a researcher in the field of metatheory and he has a conceptual frame of reference in which he can state, compare, and test the truth or validity of T_1 and T_2 , considerations of tolerance and liberalism do not enter the picture in any way other than they would if he were dealing with two theories, for example, theories about the relation between molecular weight and the boiling point of alcohols, or any other particular scientific domain.

If T_1 and T_2 are not very superficial, however, they are likely to reach conceptual layers for which we, today, do not have proper intersubjective and intercultural methods of testing. This holds especially for the prescriptive component. The metascientific researcher is apt to succumb to illusions of comparability and close the door to research, insisting that he has performed a test with decisive results in favor of T_1 (or T_2).

Among the scientifically incomparable theories of explanation it is enough here to mention those tending toward seeing a *reduction* of the

thing explained (the explanandum) to the explanans, and those tending toward seeing a mere *shorthand description* of observational results.

Let, then, T_1 and T_2 be two different theories of testing, confirming, disconfirming, corroborating, and related activities. As they appear today, they have both descriptive and prescriptive features. There are at present no acknowledged intersubjective and intercultural ways of testing theories of testing. If P_1 believes in T_1 , he will normally use it to test T_2 , in spite of T_2 containing rules or descriptions in conflict with T_1 ; and P_2 will do the same with T_1 . This circularity of procedure is, in some cases, inevitable, and perhaps only extreme rationalists will find the situation repugnant. It is at least clear, though, that metatheories of testing are not today scientifically testable.

In fields in which convictions are strong and research is weak, tolerance means adhering to intellectually decent ways of debate: not to pretend to disprove a theory without having bothered to state it clearly; not to pretend to have refuted a theory or point of view when one has allowed oneself to take for granted certain premises, presuppositions, or postulates that are negated in that theory or point of view.

What is most needed in these fields is an intense fight for explicitness. Only if certain levels of explicitness are reached can a serious search for methods of comparison and testing be instigated. Only then can truth or falsity be discerned—if ever.

Research attitude here involves cooperation between different schools of thought to help make each other's point of view clearer. It is often easier for researcher P_1 adhering to T_1 to explicate a hidden assumption in the rival theory T_2 than it is for P_2 , who himself has worked for years with T_2 and believes in T_2 .

Hertz, Poincaré, Duhem, Planck, Einstein, and Bohr, to mention only a few outstanding names in the realm of philosophy of science, had different overall pictures of science, of its basic conceptual framework and its methodology. The differences are parts of differences in total views, made more or less explicit in their nonscientific writings and sayings.

Any effort to restrict the variety of such total views by pretending that some are "unscientific" is not only unempirical, but goes against the kind of intellectual honesty and open-mindedness that is the greatest gift of research to human beings.

If two positions cannot be compared as to truth, if they cannot be refuted in the sense of Popper, the one does not, in relation to available conceptual frameworks, have a greater validity than the other. Neither can we say that both are lacking in validity, because that would leave us without anything to start out with. I propose putting it as follows:

All noncontradictory, fundamental positions (points of view) have the same non-zero status of validity.

Open-minded, constructive research, having such positions as an object, consists of clarifying and increasing the scope of them rather than trying to reduce their number. Reduction in number does not occur just by pointing out inconsistencies. This is indeed sometimes difficult, because concepts of consistency show variation with variation of position. It is also difficult because pointing out inconsistency requires a semantics, and today we do not have one, single semantic system but various incomplete, competing ones.

The term *validity* needs (even in this preliminary discussion) some elucidation. Truth—as agreement with reality—is here taken to be *a kind of* validity. The kind of validity of a fundamental position is not truth; it belongs to the class of validities such that p and non- p may both be valid, though p may not be both valid and not valid.

The logic of this concept of validity is closely related to that of tenability: a view is tenable if not refuted. If neither p nor non- p is refuted, they are *both* tenable, but, of course, not within one unit of argumentation. The term *refuted* as used here does, of course, need some elucidation, but I am afraid I must stop here.

The use of the term *reality* in philosophy of science (for example, as accepted by Mercier) immediately suggests questions about the criteria of being real and the various positions concerning reality and appearance—going all the way back to the dialogues of Plato. Most of our discussions in philosophy of science certainly need not, even *should* not, go that far. My plea for pluralism is—in respect to the debate on concepts and criteria of reality and appearance—the modest one of proposing that no door leading to the various ultimate positions should be shut by restrictive clauses.

The trend today is unfortunately against pluralism, because it is more and more plain that Eddington, Heisenberg, Rosenfeld, and others have

misled many physicists and made them adopt strange, philosophically interesting but unphysical views. However, a cry of “back to normality” or “back to realism” will not, I feel confident, close the door to new approaches, even if we agree with Landé that to maintain that the electron has *no* position between two measurements is rhetoric rather than a revolution in the theory of knowledge. The antipluralist trend is sound as a reaction against pluralism “by invasion”—by invading “physics itself” and constructing unnecessary and strange philosophical interpretations within this very discipline. (But what is “physics itself”?)

It is part of the historian’s business to try to make us experience from the inside (by *Einfühlung*) extremely different views of man and the universe. How is this possible? It seems to rest upon the assumption that the reader of a historical or philosophical work portraying the differences has a conceptual framework wide enough to cover the most extreme differences. If this were the case, we are in a sense back to monism, since a universal conceptual framework would be the only ultimate or basic one. I shall argue that we need not assume we have such an ultimate *conceptual* framework in order to make pluralism understandable and defensible at a nontechnical level. I need for this argumentation to introduce some semantic concepts.

If somebody utters a sentence T_0 with truth—or validity—claim, the definiteness (not necessarily the “depth”) of cognitive meaning is limited by the set of discriminations he makes. The network of discriminations in the form of distinctions in meaning is not a stable one. Thus, if I say that such and such a ship weighs ten thousand *tons* or that π and h (Planck) are *constants*, I may have a very crude idea of what I intend to say, but it may be definite enough *for the purpose at hand*. An expert at Lloyd’s Register of Shipping, for example, will, in his professional capacity, have a high or sharp definiteness of intention. It can be conveyed to outsiders only by means of perhaps five hundred words. As regards the term *constant*, one’s network or grading of discriminations may be at least temporarily refined by reading articles such as those of Yourgrau about different usages of the term *constant*, or by trying to compete with Quine, Church, or Mates in introducing the term *constant* in mathematical logic, or by trying to prove some fairly general theorems about constants. Degrees of definiteness of intention may be, and have been, experimentally measured and compared, but this is a complicated affair.

Economy of thought requires that we work with a definiteness of intention commensurate with the requirements of the task, of the problems confronting us at the time. Problems in quantum physics confronting physicists who do not aim at making radical advances, do not require a high definiteness of intention regarding the significance of the symbols in, let us say, the Heisenberg equations. It is, therefore, misleading to say, as many do, that most physicists subscribe to the Copenhagen interpretation. Insofar as the so-called Copenhagen interpretation is formulated as a *specific* interpretation, contrasted with others, only a small fraction of researchers and teachers in physics in Western countries seem to discriminate. A high percentage at least *say* they do not discriminate. Their definiteness of intention is too low to reach relevant distinctions.

So much about the concept of definiteness of intention. The other concept, preciseness, can be introduced as follows: a sentence T_1 is more precise than a sentence T_0 if there is at least one interpretation to which T_0 admits but T_1 does not, and there is no interpretation admitted by T_1 that is not also admitted by T_0 .

If T_0 and T_1 are sentences in the philosophy of science, an interesting criterion of admittance is the actual ways of interpreting T_0 and T_1 within a competency group defined, for example, by having training in both physical and philosophical research.

Thus, when Leon Rosenfeld says to an audience of philosophers of science, "The type of causality of classical physics is determinism," the level of preciseness in communication will be measured roughly by mapping out the diversity of interpretations among the audience at hand. This level will be dependent, but of course not entirely dependent, on the diversity of interpretations of the terms *causality*, *classical physics*, and *determinism*.

That T_1 is more precise than T_0 may also be defined by saying that the range of differences in interpretation of T_1 falls within the range of interpretation of T_0 , or that the range of interpretation of T_1 is a subclass of interpretations of T_0 .

Applying these concepts to the pluralist postulate, I suggest that we place any *talking about* wide systems, the metasystematic utterances, at a T_0 level. It is a relatively neutral level, not because of wideness of scope or vastness or abstractness of conceptions, but because of its low level of discriminations (in relation to systematic conceptualizations). Any suffi-

ciently vigorous effort to exact a delimitation of the pluralism postulate inevitably plunges it into the arms of a definite system or family of systems.

This is easily seen, considering the fact that the above formulation of pluralism includes the words *noncontradictory*, *fundamental*, *position*, and *validity*. Any fairly precise account of what might be intended by these vague and ambiguous words must reveal some worldview idiosyncrasies of the author, or some of his basic methodological positions. This ruins the communicability of the pluralism, making it understandable only within a definite camp. Pluralism is, therefore, in some sense only an ad hoc and rough position, “exposed to wind and weather” and awaiting its destruction—but what is not ad hoc?

Pluralism does not *rule out* that ultimately there must be one truth. Except, however, in matters of little concern, or in practical affairs, many of us are never able to satisfy ourselves for any reasonable length of time with any definite solution to even one major theoretical question. Why not let this color one’s stand toward ultimate positions?

Let me make a digression on the plurality of “embryonic” worldviews among nonphilosophers.

It is almost universally believed among philosophers that nonphilosophers (or more specifically, men of common sense and, of course, youngsters who have not yet heard of philosophy) are naive realists in ontology, that they think truth consists in agreement with reality, and so on. If we take *naive realism*, *ontology*, *truth*, and *agreement with reality* as vague and ambiguous words on the T_0 level, they can be used as starting points of preciseness that lead us ultimately to interesting differences in worldviews in general, and metascientific views in particular.

If empirical evidence is considered of any importance in this field of easy speculation, it supports an opposite conclusion. When they are directly or indirectly stimulated toward formulating philosophical opinions, I have found that fourteen- to eighteen-year-olds express in a crude way, with low definiteness of intention, very different ontologies, epistemologies, and other positions of fundamental import.

In environments in which certain trends of philosophy dominate, gifted young students tend to adopt the current opinions and attitudes, although an impressive teacher may induce some of the students to accept his views even if they are looked down upon within the dominating circle.

This is the exception, however. In any case, the narrowing down of variation is not attributable to any intellectual inferiority of certain basic views, and certainly not to clear-cut falsification. Intellectually, there seems to be a decline in variation owing to absence of systematic development of various intensively incompatible views on the professional level (the “monolithic” tendency). The “amateurs,” kept isolated from authoritarian adults, show a far greater tolerance of ambiguity (as this term is used in psychology), and also the courage to leave debates on fundamentals open. These are, of course, empirical hypotheses, and they have only in part been subjected to research. Results so far obtained point in that direction, however.

Finally, what is the relation of philosophical pluralism to the contemporary discussion of physical reality? Listening to what some physicists authoritatively tell us, pluralists get into trouble: to accept as pure physics what they tell us *must* today be accepted—and not as conceptions derived from some basic conceptions—entails accepting certain fundamental positions as the only possible ones. Thus, Leon Rosenfeld *insists* that the development of physics entails certain views in the logic of concepts. If this logic (which is more akin to ontology in the usual sense) is expanded, it fits Hegelian basic positions, not others. Those of us who are not physicists are accustomed, and inclined, to accept at face value what we are told is pure physics, and we are tempted to look at certain philosophies as falsified by physics. This means giving up pluralism. Listening to other physicists, however, we begin to suspect that physicists have succumbed to a gigantic non sequitur and are offering us positions on false grounds. Hence, we shall look with interest for evidence that different groups of contemporary physicists, all presumably very competent, have incorporated different positions in their so-called physics. This is happily the case. We should, therefore, be in a position to discriminate “pure physics” from “philosophical physics,” looking for pure physics in what is agreed upon by all physicists today. Philosophical physics would be physics explicitly developed within the frame of reference of a fundamental position.

Pure, unphilosophical physics is, of course, strictly speaking, nonexistent; it is a fiction. However, a position akin to Pierre Duhem’s may well be developed—*akin* to Duhem’s, because his doctrine that the succession of good physical theories makes them approximate a natural classification of real objects cannot, if accepted at face value, avoid coloring the physicist’s

criterion of a good theory. This makes him take a kind of realist philosophical position, thus *leaving* his “pure” physics.

The pluralist in me is interested in the further elaboration and clarification of the subjectivist interpretation worked out by Heisenberg. Eddington can be radicalized in the direction of Berkeley’s idealism. Of value to pluralism, too, is the idea of Leon Rosenfeld and others that there is something dialectical, in the Hegelian or Marxian sense, in the doctrine of complementarity. In his famous Tokyo lecture (1960) this eminent, vehemently antipluralist physicist, Rosenfeld, made quantum physics part of a far from trivial metaphysics. He there said, among other things, that “Complementarity denotes the logical relation, of quite a new type, between concepts which *are mutually exclusive*, and which therefore cannot be considered at the same time because that would lead to logical mistakes, but which, nevertheless, must both be used in order to give a complete description of the situation.” Logicians have not, as far as I know, been inspired to work on this quite new type of logical relation. The main reason, I think, is that the environment of logicians (in the West) is un-Hegelian or even anti-Hegelian: the notions of “concept” and of “logic” implicit in Rosenfeld’s views do not belong within the mainstream of formal logic; they do belong to the Hegelian framework of Rosenfeld’s philosophical physics.

Neither the Heisenberg nor the Rosenfeld philosophical theory has as yet the preciseness required for univocal location within the network of fundamental positions, but I hope that some philosophically trained Copenhagen people will take up the problem of how to find careful, precise formulations. This will not, however, be of any consequence if Landé is right: the point of departure *inside physics* of the Heisenberg and the Rosenfeld theory does not at all warrant any interpretations different from older particle physics. A quantum physics without particle-wave dualism cuts out any special quantum philosophy of the Heisenberg and Rosenfeld varieties.

What has the development of physics in the last decades to do with philosophical pluralism? The developments have convinced me, first, that fundamental advances in physics are made by physicists for whom physics is not a formidable set of tricks of the trade, but whose thinking proceeds within the framework of ultimate positions, of philosophical interpretations of the terms and formulas used in physics. With time, the philosophical theory of these physicists is “rubbed off,” because physical practice does

not require preciseness in fundamentals. Second, I am convinced that the positions among creative physicists are and will continue to be mutually inconsistent, that efforts to stifle the sources of diverse philosophical inspiration constitute not only a methodological but a general cultural evil. The fight between supporters of so-called idealist and realist conceptions is barren except for increasing the explicitness, comprehensiveness, and consistency of each kind of conception.

The pluralist Bernard d'Espagnat says in his carefully written *Conceptions de la physique contemporaine* (1965: 11) that there are as many original interpretations of physics as there are "possible conceptions of the relation between man and the world." This is a happy formulation, I think, if we are permitted to add "basic" to his term "relation between man and the world," and "at least" before "as many." In the matter of particulars, or nonbasic problems, most views (even among the consistent ones) are eliminated by research, or will soon be eliminated as improbable, badly corroborated, and so on. Pluralism based on keeping alive refuted hypotheses is, of course, uninteresting to us as researchers.

Let me append to this pro-pluralist sermon a remark that might (mistakenly) be taken as antipluralist: Vigier embraced the idea of a theory of hidden variables before he could describe a single possibility of experimental confirmation. He has been unjustifiably criticized for this among some physicists, but, on behalf of all pluralist philosophers of the world, I would thank him; we have, as philosophers, little or no chance at all of creating alternatives in physics and are, thus, rather helpless when physicists point to certain interpretations as inevitable and definitive. Courageous physicists who suggest new paths even before it is seen where (or what) they might lead to experimentally are, therefore, especially welcomed. Vigier was inspired, however, by a form of dialectical materialism, in a way that would scarcely be possible if he were a pluralist in philosophy. This underlines the curious fact that it is difficult simultaneously to promote unconditionally both pluralism and swift, radical advancement in science.¹

Discussion

Wolfgang Yourgrau: Naess seems to plead for some sort of tremendous tolerance and liberalism, as far as philosophical schools are concerned. He is say-

ing, it seems to me, that all philosophical schools are more or less equivalent. According to my opinion, they can't all be valid. Having the sheep with the lions, the existentialists and the analytical philosophers, the rationalists and the realists, the pragmatists and the metaphysicians, all in one happy paradise—I don't believe in the probability of such a paradise.

In fact, it can be proved that some views held by a given philosophical school are in no way consistent with other views. So why not draw the most plausible conclusions? If they are wrong, we make corrections by trial and error. Philosophy, physics, mathematics—they all have learned from errors. You can't afford the luxury of having no viewpoint at all and simply say, "Well, I listen to you and you listen to me." Philosophically I find such an attitude slightly . . . repulsive.

In mathematics we have three famous schools. I grant that this *is* pluralism in a way, but even though one may contend that the intuitionists or the logicians or the formalists have each a very good case, one still has to say, "I am either a formalist or an intuitionist or a logicist." I don't think one can be creative in three *generically* different scores like a gifted musician.

When it comes to logic, although I have heard about many "logics," I think it has been very beautifully shown by Quine and later by other thinkers that most findings of modal logic can be reduced to nonmodal logic. These are interesting adventures, but on the whole I think we have a definitely unique viewpoint even among logicians, although one may pay tribute, or at least lip service, to other logicians with whom one doesn't agree.

I would like to stress that (although I agree the limits of definiteness are not very sharp) our aim must be, as scholars, to sharpen our concepts *even at the risk of antagonizing our colleagues*. There are situations in which one just cannot build bridges even within his own field. Bridges to another discipline are one thing; illusory bridges among your own fraternity are an entirely different thing.

Naess's viewpoint on contemporary physics is interesting, but unfortunately I can't agree with it. For me, any sincere physicist with academic integrity tries to tell us something about the world, sometimes in very involved conceptual language, sometimes using a mathematical apparatus that is intricate and abstract. But still, he is for me only a physicist and not a mathematician if he really wants to know something about reality. And

there I think pluralism is an approach I would not recommend to my students as *the* ideal recipe.

Finally, Vigier is responsible, together with Bohm et al., for a very interesting new model of the elementary particle and an aesthetically fascinating theory. Regrettably, as long as I haven't been shown for his precious model and theory even an iota of experimental evidence, I have to consider the adherents to those "original" ideas as quixotic. But let me confess that the very moment when I see an ever so slight experiential support for Vigier's contentions (and those of his collaborators), I shall become converted and eschew all my previous commitments in that particular domain.

Arne Naess: Let me restate the definition of the term *pluralism* as I used it. All explicit noncontradictory, fundamental positions have the same non-zero argumentational status of validity. Explicitness and fundamentality require preciseness. This rules out the standard statements of philosophical schools, as far as I can see. Behind the vague slogans of schools, however, are differences of basic views. These should be explicated.

At the lowest level of preciseness, the T_0 level, contradictions do not appear, nor are interesting differences in premises, postulates, and rules of inference statable. To be able correctly to say to somebody, "You stated a contradiction," is a compliment because it means he operates above a certain minimum level of preciseness, and this is what I, of course, will require of an explicit, fundamental position. If we cannot locate where you stand in the landscape, how can we argue with you?

I am not excessively liberal and tolerant toward so-called schools of philosophy as we find them "defined" in dictionaries and bad histories of philosophy. What is asked for is not "tremendous tolerance and liberalism," but rather abstinence from totalitarian, sectarian, and conformist attitudes, and willingness to take part in teamwork involving serious research across ideological boundaries.

It would, of course, be queer to proclaim that "all philosophical schools are more or less equivalent" and their premises, assumptions, presuppositions, and postulates all "valid." Most school formulations are not precise enough even to make exact comparisons or to search for inconsistencies. Mists do not collide—and note: physicists are responsible for a lot of this mist!

Researchers do not like to be labeled by names of so-called schools, and this also holds for philosophers. A formulation said to express an assertion or rule characteristic of pragmatism *as a school* is mostly a formulation nobody would accept or take seriously, because of vagueness and ambiguity. The same is true for formulations pretending somehow to catch the essence of, for example, "existentialism," "Hegelianism," "ordinary-language philosophy," or "rationalism." When Yourgrau states that "all philosophical schools" cannot be "valid," he may have ism formulations in mind, and I agree. *Validity* and *invalidity* are terms we both would reserve for formulations of statements or rules that show a minimum level of interpersonal preciseness. I have only such formulations in mind when advocating pluralism.

If, on the other hand, we take carefully selected formulations from, for example, the so-called pragmatist C. I. Lewis or Quine or from the anti-pragmatist Gottlob Frege, or from a Hegelian like Grenness, some may have the character of fundamentality that makes them "equivalid," "acceptable one at a time." That is, there is no sufficiently wide conceptual framework, including semantics and methodology, within which they can be scientifically compared and tested. Maybe future generations will see such frameworks; today, it seems best to travel on different roads. To invoke trial and error as a test method here would be naive.

The current philosophy of physics includes a great number of metascientific sentences on "completeness of a theory," "explanation," "observation," "levels of physical reality," "interaction of subject and object," "path of a particle." What is needed more than anything else is more precise and elaborate formulation of the positions suggested but not clarified by those sentences. Cooperation among people trained in philosophy and physics is needed to make use of the suggestions of Heisenberg, Rosenfeld, Bohr, Fock, Bohm, Vigier, Landé, Weiszäcker, de Broglie, and others. The school terms *idealism*, *pragmatism*, *dialectical materialism*, and so on, are apt to thicken rather than dispel the haze. Moreover, the stress on one position being true and the other false is premature; it leads away from constructive meta-research and the difficult work of finding hidden premises and of formulating, as exactly as possible, differences in postulates, fundamental assumptions, and styles of research. Contrasting positions must be sharpened, kept alive until, if possible, refuted in an intellectually honest way.

The emphasis on multiplicity of mutually inconsistent views is *not* eclecticism. The eclectic is rather a monist than a pluralist, rather an irrationalist in the “Popperian” sense² than a rationalist.

Jean-Pierre Vigiér: I wholeheartedly agree with Yourgrau. I think the real problems now, which are philosophical problems, are being fought on quite a different battlefield: the battlefield of science. The great periods of philosophy were precisely the periods in which the problems were tied to an explosion of scientific knowledge such as in Greece, the Renaissance, etc. Now in a sense we live in a similar but even more exciting period. Progress in the last forty years has been more important than in the last two thousand years; nine out of ten scientists who have ever lived are alive at present.

If one reflects on the nature of the big problems to which our knowledge has been brought to bear in the last ten years, we see we are on the way to answering problems that have been discussed on a purely rhetorical level for the last two thousand years between, for instance, the materialists and the idealists.

Consider, for example, the problem of whether life can be explained in terms of a possible behavior of matter. The answer to that problem is being given now, not by philosophers but by the scientists themselves. It rests on the discovery of DNA and the introduction of the feedback ideas of Wiener and many other scientists into the theory of life. This is the beginning of a real definition of the problem of life.

There is the same thing in the problems of soul and consciousness. Thinking machines are beginning to clarify certain elements of what “thought” is. This means that the corresponding problems are moved from the level of words to the level of the laboratory. I think the whole issue, of course, is that of synthesis within scientific knowledge.

I am against eclecticism. All ideas should be allowed to be expressed, but in science they are fought and settled on a very special level, that of scientific practice, by the results of experiments. I don’t think the discussion with the Copenhagen school is a merely rhetorical one. I am certain it is an issue that is going to be settled on the scientific level. A lot of so-called philosophy appears to me to be just sophistry. People like Teilhard de Chardin pretend to answer questions that they have no right to answer because all this talk about spheres is just words. The people who are doing the

actual work are the biologists, for they are really approaching, on a precise, controllable level, the fundamental problems raised by our knowledge. Hence, questions concerning physics or the laws of physics should be settled by the physicists themselves on the level of experiment. I want to chase the ideologists away from knowledge because the truly fundamental revolution of our time is precisely the construction of a synthesis out of scientific knowledge.

Now, this does not mean that I think there is a unique philosophy that is going to issue forth from the discoveries of scientific knowledge. I hold that we will observe in the following years new scientific revolutions—this is not a Teilhard de Chardin-like prediction—and a new qualitative synthesis will arise because science works by successive revolutions. There are long periods of accumulation of knowledge and then periods of breakthrough that change the whole traditional point of view.

If one reflects on the nature of modern science, one sees that all the barriers between the different branches of knowledge are falling down. Consider, for example, the impact of the work of a man like Norbert Wiener. I think that Wiener's contribution will appear, in time, as important perhaps as that of Descartes. The ideas of cybernetics, the notion of feedback, have transformed completely our ideas about the behavior of nature and about causality. They have opened the way to a new scientific explanation of what is life and what is soul.

What is really happening is the explosion of science. Now, instead of having long periods in which different branches of knowledge were independently deadlocked, any revolution in one branch changes the outlook in all other branches.

This is a fantastic change and explosion, and of course it is imperative to bring scientists and philosophers together. But, as I say, I have a deep conviction that the most advanced thought, the solution of the most advanced problems, originates in the laboratories themselves.

H. J. Treder: I think one of the best remarks Einstein has made about philosophical problems is that all physicists are philosophical opportunists. They do not have a philosophical system that will work. A physicist might be in one respect a realist and in another a positivist. The conceptions of the philosophers are only working instruments for the physicists. Of course,

some physicists may or may not lean toward some special philosophical systems. A relevant criterion of the physical meaning of the works of these physicists is the invariance of their results according to different philosophical points of view.

Naess: Since I was trained in psychology in general and social psychology in particular, the interview technique is natural to me; so I asked physicists doing research in quantum physics whether they apply such a method to the Copenhagen or any other interpretation. The answers mostly amounted to a denial that they have had to take a stand. Their work is neutral toward crucial differences of interpretation, and they often succeed, as they admit, by “mere” tricks of the trade. Further, if their work happens to put them in close contact with burning questions of metascience and of fundamental views in general, they often are, or act as, “opportunists,” as pointed out by Treder. In other, perhaps rarer, cases, physicists do not act in this way, as exemplified by Niels Bohr and Einstein, for whom there was no clear distinction between a scientifically “pure” physics and a physics interpreted within a broader framework of metascientific and fundamental issues. In the early 1920s, so-called pragmatist and positivist attitudes were perhaps the *most* opportune ideas for “getting quantum physics moving.” Einstein could not leave his fundamental positions, however, and Heisenberg did one of the crucial jobs. (“What is a physical theory?” and “What is physical reality?” were burning questions affecting their conceptions *in* as well as *about* physics.) In still other cases, metascientific issues *dominate* the physicist in his work, as was the case with Pierre Duhem. The result was sometimes a happy one, sometimes a deplorable one, from the point of view of heuristics.

All this I try to elucidate by using my concept of “depth of intention.” The varieties of fundamental positions arise from a great depth of intention in any extraordinary situation. For most researchers in most of their work, great depth and the corresponding fine-grained set of discriminations (to use a phrase from psychophysics) are a luxury.

Recent significant advances in molecular biology have brought to the fore just those problems that cannot be solved in the laboratory alone, but that require going back to premises, postulates, and basic human policies. The “social” sciences in their turn require us to pose as precisely as possible

the values we shall defend. They do not operate automatically but require "input." When ordinary people ask scientists to state the implications of the discovery of DNA, to show what questions of eugenics, ethics, politics are implied, an answer must be stated in ordinary language, not in that of the biological laboratory. The scientist must be conscious of his own position in the vast metascientific field of rational debate.

Hermann Bondi: On the historical side, I think Naess's remark about great advances in physics coming from physicists with a philosophical bent of mind is true in some cases and untrue in others. The greatest experimental physicist of our century, Rutherford, was perhaps the most nonphilosophical thinker who ever lived. Dirac made many great contributions, but I think what most would regard as his greatest, viz., the equations of relativistic quantum mechanics, were essentially a trick of the trade, a usable one, but no more than that. So I cannot entirely agree there.

On the other hand, when Naess pleads for pluralism, then it seems to me very clear that pluralism is of the very essence of science. To me, it is the greatest glory of science that people of different religions and different ideologies can work together effectively. It shows that in science there are certain methods on which we can agree, in which experiment forces agreement, even if there are others on which we do not agree.

Next, there is the point at which I am perhaps a little more "Vigierist" than Vigier himself. There is science, yes, and in this we have theories that are testable in the "Popperian" sense. But we do not know (until we have explored alternatives) which part of the framework is essential and which is not. For eighty years after Maxwell proposed his theory, the field concept was thought to be a vital part of it, and the tests of electromagnetic theories were thought to show that the field concept was right. Then Wheeler and Feynman demonstrated that we could arrive at Maxwell's equations from an "action at a distance" concept, leading to the same experimental tests, and so we now know that the field concept is only *one* alternative basis. It has made the field part of the Maxwell theory move out of science just because it is no longer testable. But removing it from science strengthens the demarcation and is thus a true scientific contribution. If the Bohm-Vigier theory does not lead to any possible experimental discrimination, it will yet show that different approaches are possible. Thereby, it will have removed from science part of the usual foundations of

quantum theory as not being testable. Therefore, it will have made a valuable contribution.

My last point will merely be to support the plea for pedestrian work. As may be known, I have occasionally done some speculative work. I recall giving a lecture to students on some particularly speculative matters, and they became most interested and fascinated. And so I closed with the advice “I am delighted if I have interested you in this, but do not do any work in such speculative fields until you have done some good pedestrian work so people know you are a real scientist and not just a crank.”

Naess: As Bondi indicated, sometimes philosophy of science is more of a burden than an asset for the creative scientist. I note not with reluctance but with delight that in science sometimes very unphilosophical minds do excellent things. In the case of physics, I venture to suggest that in certain years, from 1920 on, those who just said “Let us have more fun, doing some really good mathematical tricks,” could do it more easily because they did *not* have the worldview of Einstein. Even if they had a background of positivism and pragmatism, I would not be right in saying that they were mainly philosophically inspired, but “unphilosophicalness” may be of a philosophical kind, an *implicit* pragmatism, or practicalism.

Richard Popkin: I think the history of ideas thrives on the sort of pluralism Naess is advocating. If there hadn't been this sort of pluralism, things would be very dull because we would be just studying the same idea over and over again. Fortunately, there has been this pluralism, but I find in studying it there is always a tension between the sort of tolerant pluralism that Naess is advocating and the dogmatic pluralism that has gone on all the time. The contribution of the many views that have existed in the past seems to depend not on the fact that they tolerate each other but on the fact that they don't. But the dogmatism, the fact that people believe these things, really take them so seriously, claim they have the unique way to truth, has led them to produce the novel ideas that they have. If they were as tolerant as Naess would like them to be, I wonder whether they would really make this sort of contribution.

Pascal observed that Pyrrhonian scepticism is true as long as there are dogmatists, but as soon as there are no longer any dogmatists, this scepticism will become false.

Herman Tønnessen: Vigier remarks that the solutions of the most advanced problems are given by the scientists themselves, achieved in the laboratories, and he mentions one problem to which, he claims, the solution is now coming from laboratories, viz., the problem “What is life?”

First, I want to say that this model is not adequate. It gives the impression that one is either here or there, whereas the point is that in most cases we are focused somewhere in the middle, and that we shift, oscillating from one situation to another. The model overstates our definiteness of intention. This is misleading, as the whole thing is more like one enormous porridge of meanings and intentions.

Let’s take the problem of immortality, for example. If you say man is immortal, you can work out a formula. You can write “This is the maximum of tenability and this is the consolation value of your theory.” But in my opinion, it goes something like this. The more tenability, the less consolation value. But what do people do with “immortality”? One may, on the one hand, give it a definition that it is very likely to be *true*. Then, on the other hand, one could at the same time hold an idea of immortality that would be much different, but that has great *consolation value*. Thus, it becomes a porridge of intentions and meanings; and one oscillates imperceptibly between both extremes, which gives one the very comfortable feeling that both ideas are true: we are immortal, and we have the consolation. We are utilizing the vagueness and ambiguity of “immortality” to comfort ourselves.

Well, I would maintain that it is the same thing Vigier does. He is assuming unlimited definiteness of intention. Possibly his intention is, at one point, *A*, but he is tacitly assuming that it is at another point, say, *B*. Therefore, when he is talking about laboratory experiments as being relevant, they are only relevant to someone who has the level of intention *A*; but this is totally irrelevant for anyone who has the level or depth of intention *B*. And of course, somewhere between *A* and *B* there would be mixed feelings, and these are the mixed feelings I wanted to express.

Vigier: The question of life is a precise question that can be split into a series of problems and has indeed been put by biologists in quite a precise set of single problems.

Now we understand how the cell works, because we know that the

DNA is a code and the code gives instructions for all cellular chemical reactions. The living cell can be defined as a memory that reproduces itself.

This is the way in which a problem passes from the level of vague words into a precise formulation, and that is the way knowledge moves forward. Look at the way, for example, in which knowledge moved during the Renaissance, the vague way in which questions in astronomy and in physics were expressed before Galileo and other thinkers, and the precise way in which they left these problems.

Naess: If all fundamental views or theories about physical reality were to be considered in a critical atmosphere, it could only be done in an environment of tolerant pluralism. As regards the chances of professional maximal (or optimal) achievement in an atmosphere of tolerant pluralism, I share Popkin's pessimism. Dogmatism, narrow-mindedness, cocksureness, and fanaticism have sometimes been conducive to great achievements because they have made a researcher work out the consequences of a bright idea with greater energy. Intolerance does not protect just weaklings. Generosity and wide perspective is sometimes bad heuristic but always good cultural philosophy.

Is our great problem today lack of perfect achievements? Is it not rather the drying up of sources of a colorful multiplicity of views and attitudes owing to the worldwide integration of technical, "scientific" culture?

Vigier says that the problem of life is a series of precise problems. I would say, though, that there is no precise series. A hundred and fifty years ago, one of the central questions concerning life was whether organic matter could be explored and explained successfully by chemists and physicists. Tremendous scientific victories in organic chemistry, since Wöhler in 1829 succeeded in obtaining urea from ammonium cyanate, have decided that issue. It is not a living issue any more. There has been a shift of problems—many times.

Only specialists on Aristotle can make us aware of his frame of reference in *his* "physics." As long as we did not go deep enough, we interpreted it in terms of Galileo and the decadent "Aristotelian" physics of his time. Today—to our astonishment—we see a "physics" of Aristotle that is capable of a rejuvenescence, not as a physics in the contemporary sense, but as a view of physical reality and of the logic of "things." The discovery is analo-

PHILOSOPHY OF SCIENCE

gous to that of the independence of Stoic logic from the conceptual frame of—the same incredible genius—Aristotle. Both discoveries are feats of tolerance of diversity and careful inspection of fundamental assumptions, premises, and postulates.

Frederic Nef: I would only note that to distinguish is not necessarily to tear apart. To distinguish can be a means of bringing about agreement on a higher level and concerning matters that are more vital to man than those about which we disagree.

On the Structure and Function of Paradigms in Science

Classical History of Pure Science and Modern History of the Scientific Enterprise

In the 1930s the Marx-inspired scientist Boris Hessen with a keen interest in history scandalized worshipers of pure science in general and of Isaac Newton in particular by asking questions such as whether the need for a superior technology of navigation in imperialist England influenced the genesis of Newtonian mechanics. Worse still, scientists inspired by Freud asked whether the castration complex might influence logicians in their conception of negation. The usual straight stroke as a sign of negation is at the same time a symbol of a knife. In these cases, science is seen as something certain people do who are just like most other people, impelled by a mixture of personal motives or by impersonal structures such as systems of production. History of science until that time was largely seen simply as a quest for truth with its own logic, that of induction, deduction, verification, and falsification. Other factors were treated under the title of heuristics, the art of discovery. All very laudable and decent, and deserving the name of classical history of science.

The central function of natural science during World War II furnished what might be called “real,” highly professional historians with a strong motive to study the development of science with an intensity and a broadness of mind rarely, if ever, seen before. The historians inspired people with full competence in natural science to reshape its history. Instead of

This article was reprinted with the permission of Routledge, Taylor & Francis Group from *Theories of Carcinogenesis*, edited by Olav Hilmar Iversen (Washington, D.C.: Hemisphere Publishing Corporation, 1988), 1–9.

concentrating on internal, especially logical, aspects of science, the new study was, properly speaking, a study of the history of the scientific enterprise in its social setting, that is, the scientific community and the larger society.

The new look of science was known only to small professional groups until Thomas Kuhn published his *Structure of Scientific Revolutions* in 1962. With a brilliant, easily understandable terminology, he exposed certain aspects of the new trend in a way that inspired thousands of scientists in all major fields of study, including the social sciences and humanities.

In the years since the book's publication, his views have, of course, been subjected to criticism, and they have also been misrepresented and have invited extensions of which he did not approve. The work remains, however, a valuable source of inspiration, and his term *paradigm* irresistible.

Paradigms and Paradigm Shifts: Kuhn's Concept and That of Others

Kuhn's Concept

A "paradigm," as this term was introduced by Thomas Kuhn in 1962, is, roughly speaking, a way of "doing science." It is characterized by the acceptance or use of (1) a fairly definite set of explicit theories and hypotheses, (2) a much less definite set of fairly general assumptions, and (3) a practice of experimentation and research behavior.

An adequate description of a paradigm is not easily produced by scientists themselves practicing science firmly and confidently within the framework of their definite paradigm. Much is implicit and relates to unexpressed features of that practice. It is an essential job for a historian of science to propose adequate description of the characteristics of a Kuhnian paradigm.

The examples of paradigmatic changes in the Kuhnian sense are those produced by the great scientific revolutions: Copernicus in astronomy, Lavoisier in chemistry, Galileo and Newton in physics, and Einstein and quantum mechanics in physics and cosmology. It is perhaps typical that professional historians are not highly motivated to point out Kuhnian para-

digm shifts in history itself. If a historian of historical research makes a lot of fuss about a sudden major shift in how historical research is done, his or her colleagues will immediately concentrate on finding predecessors—and they mostly find what they intensely want to find or believe they find, as we all do. However, even historians agree broadly, I think, that after World War II there was a deep change in doing history of science. I call it a shift from doing history of pure science to that of doing history of the scientific enterprise—considered as a social activity on an increasingly gigantic scale.

There are some notable properties of a Kuhnian paradigm: A community of scientists rather than individuals may be said to work within the framework of a definite paradigm. The work normally results in the accumulation of suspiciously well organized knowledge. The careful elaboration and definiteness of the framework ensure easy comparability and interpersonal testability. The members of the community know what to do, how to judge what is good and what is bad work, what to accept, and what to reject as absurd, arbitrary, meaningless, unscientific, or unfruitful. This all sounds good, but there is something rotten not just in Denmark.

A detailed framework is indispensable, but it narrows down how to pose questions and it prevents attempts to create new frameworks. A growing crisis is necessary to motivate members to try something shockingly new, something that is not so much mistaken as absurd from the point of view of the Kuhnian paradigm. Growth of knowledge without crises is a bad sign.

Non-Kuhnian Paradigms

So much about the essentials of Kuhn's conception. What is relevant to the scientist's problems in cancer research is, I presume, scarcely paradigm shifts on the grand scale of the Copernican revolution or even the transition from phlogiston chemistry to that of Lavoisier. Olav H. Iversen and E. G. Astrup claim that they are "fully aware of some of" their own "paradigms, prejudices, and shortcomings" (Iversen and Astrup 1984: 51). The main use of the term *paradigm* in Kuhn's text is such that we work within one paradigm at a time and are *not* fully aware of it. I think it is fruitful to

use the term in a fairly wide sense, if not quite as wide as Iversen and As-trup in the above quotation. I shall concentrate on problems concerning dominance and shift of dominance of a theory with its particular concep-tualization, and the concomitant practice of research, including experi-mental designs.

First let us ask, How is strong dominance possible in a community of presumably independent, open-minded researchers? Is it because a theory has been verified? The answer of today's philosophy of science—or meta-theory of science—is, Not at all!

The negative answer is most easily understandable when we concen-trate on the relation between theory and observation. The total evidence for and against a theory is, of course, not only of an observational character, but I here deliberately limit myself to observation.

If by "theory" we mean a set of fairly general, abstract statements, there is no finite number of observations that can verify it. A theory about the function of insulin in human bodies is not limited to human beings presently living or to definite samples of insulin. Therefore, even billions of tests cannot verify the theory in a logical sense of proving its truth. The ra-tio of tested cases to possible cases remains the ratio of the finite to the infi-nite. Strictly speaking, a theory is not even made more probable by adding positive observations.

There is today a new factor. The ways of observation mostly include the use of immensely complicated instruments and machinery. A sentence written in an observational journal, a plus or minus or other short symbol, is only relevant to the test of the theory if the working of the instruments has been flawless at the moment of the observation. In short, there is no end to the premises assumed to be true or tenable if we say that we have verified a theory.

The distinguished philosopher of science Sir Karl Popper is reputed to have rejected the practicality of verification but retained falsification. If we look at a hypothesis such as "All ravens are black," a simple observation of color plus the help of a taxonomist may falsify the statement. Here is a raven, we say, and evidently it is green. However, the hypothesis "All ravens are black" is a simple generalization of something rather directly ob-servable, and not what we call a scientific theory.

Suppose we make an observation that contradicts what we wish the

experimental setup to find. Is genuine natural-science theory then falsified? It is rather pretentious to say that. There may be a lot of weaknesses in our experimental setup, and perhaps the phenomena observed belong to the fringe of the intended field of validity of the theory. Suppose, however, that there is in the relevant community of scientists no doubt that it *is* a genuine disconfirming instance. From the point of view of logic, the theory is then falsified only if we suppose the community is right in its conviction. The curious conclusion is then that practically all established theories of high reputation are falsified, because there is at least one instance of disconfirmation, often unpublished, that we simply cannot rule out as spurious or misleading. I do not think we should say that all well-established theories are falsified, but instead say that there are some disconfirming instances that we cannot account for among a wealth of confirming ones.

In the above argumentation I use the term *established theory*, and now we perhaps reach the heart of the matter: the logic of scientific research is important, but the life of science, the activity within today's scientific enterprise, is not logical in any sense! What currently are the most successful theories are not the theories that are verified or shown to be probable, and the competing theories are not falsified or shown to be less probable.

When we try to understand the reasons for the life, death, or dominance of theories in natural science, what we may call the Mach-Duhem-Poincaré theorem is central. A somewhat long but precise formulation of the theorem is:

Given a theory T and a set of confirming observations O , whatever the number and kinds of observations, there are potentially an indefinite number of theories incompatible with T that also are confirmed by the observations O .

By two theories T_1 and T_2 being incompatible is here meant that the joint assertions of both of them yields a logical inconsistency.

The extremely simple general reason for the validity of the Mach-Duhem-Poincaré theorem is the availability of incompatible premises yielding the same conclusion.

By a theory T , I shall in what follows, as in the preceding, denote a

causal or statistical, general, abstract statement without temporal limitations, for example the limitation to saying what *has been* the case rather than what *is* the case. The succession of simple events such as light signals can be directly observed, but causes cannot.

Let me illustrate what cannot be repeated too often and that explains a lot about the anatomy and physiology of paradigms.

The considerable distance between theory and relevant observations can be illustrated by placing *T*, for theory, at the top of a treelike figure and *O*, for observation, at the bottom. The premises of the basic logical relation of derivation proceed down from top and branches. The highest branches contain abstract theories of logic, mathematics, physics, chemistry, and other abstract aspects of science that are presumed to be valid when testing *T*.

Farther down, the branches contain hypotheses from particular fields in the neighborhood of the theory *T* that also are presumed valid. The lowest, most numerous pairs of branches contain detailed descriptions of the particular situation, for example the experimental design and setup, the operations carried through by presumably competent people, and all other more or less directly observable conditions of each particular, singular observation. Most of the items presume the validity of abstract theories, the apparatus to measure time, the microscope, and so on.

A definite well-arranged test by observation is one that either provides an instance of confirmation or an instance of disconfirmation of the theory. Adding instances of confirmation does not yield verification, nor does adding instances of disconfirmation yield falsification. Seen from a logical viewpoint, why is this?

Compactly reformulated, it owes to the circumstance that the statement *T* is only one of innumerable premises that together furnish the derivation of *O*, that is, predict *O*. If we do not get the observations we should have, if the theory is correct, why is it then not falsified? Simply because of one or more of the innumerable other premises that *T* may be wrong. The experimental setup may contain a flaw, that is, one of the statements on the lowest branches may be false, just to mention one kind of possible weakness.

If we get what we predict, it does not directly concern the validity of *T*

because innumerable other theories inconsistent with T are also, according to the Mach-Duhem-Poincaré theorem, compatible with the particular observation O .

Let us consider an analogy:

From	All fishes are warm-blooded
and	All whales are fishes
we derive logically	All whales are warm-blooded

Here two wrong premises furnish a valid construction.

Every confirmatory instance of T may in principle be attributable to untested faulty assumptions; the same may hold of every disconfirmatory instance. In short, whether we observe the predicted O or something entirely unpredicted has only a very distant relation to the validity of T .

The two-stage theory of carcinogenesis formulated in a concentrated fashion by Boutwell, Urbach, and Carpenter (Iversen and Astrup 1984: 53) contains twenty-seven short sentences of more or less abstract character. Few theories, carefully formulated, can be made any shorter. The introduction of a measure of probability—for example, an assertion that the probability of the theory is .21—can scarcely be of any use, if practicable at all. Tests are scarcely able to confirm or disconfirm even a small number of assertions of the theory. More serious is the tendency of untested research practice (experimental design, technology) to be stereotyped in such a way that theory hardly can be disconfirmed. “Probability” measured by confirmatory instances approximates 1 but is totally misleading. Talk about the probability of a theory being true may be acceptable at a superficial level, but talk about the probability of a paradigm is not acceptable, even on that level. The whole tree of assumptions is relevant. A probability of the sentences of theory T cannot be singled out and isolated from the sentences expressing the complete mass of assumptions. Theories and paradigms have complex properties that motivate their acceptance or rejection. Probability in any precise sense does not belong.

We are *in practice* justified in saying sometimes that a theory is heavily disconfirmed or highly confirmed. Practical research has, and must have, considerable distance from logic. This is not generally admitted, however, so we see researchers treat theories as if simply verified or falsified, that is,

simply *shown* to be true or *shown* to be false. To a degree, this talk is good for the moderate stability of the scientific enterprise, and it is also a source of happiness for scientists. It is satisfying to verify a theory and contemplate how wrong the opponents are.

I shall end this deliberately repetitious treatment of the relation of theory to observation by mentioning a humorous example. The very learned non-astronomer Velikovsky derived from premises utterly false or improbable, according to the astronomical establishment, the conclusion that the surface temperature of Venus is several hundred degrees hot. At the time there was a lot of laughter among astronomers, but then actual observations were made, and Velikovsky's conclusion verified in the opinion of astronomers. It was slightly annoying to some of them, but mainly because of the illusion that when a logically valid inference is made from a set of premises, and the conclusion is accepted as true, one should, according to scientific methodology, take the premises rather seriously. According to the Mach-Duhem-Poincaré theorem, however, we need *not* take the particular set of premises seriously.

The above logical excursion is astonishingly well adapted to explaining the frequent dysfunction of paradigms. Successes of a theory in explaining and predicting strengthen the opinion that the long series of confirmatory instances reveal the truth or probability of the premises, and among them the theory formulation itself. This creates an untenable prejudice in favor of the theory and favors its domination.

Furthermore, the successes strengthen the tendency to define the terms used in the theory in terms of the particular processes of testing and confirming it. This decreases the likelihood of disconfirmations, not because of the large area of validity of the theory, but because the so-called operational definitions have narrowed down the potential area of disconfirmation. The resulting head-shrinking of the supporters of the theory goes unnoticed because conceptual analysis is not a main concern of the practical researcher.

Fruitful concepts are mostly vague until made more precise by attachment to processes of testing and observation. Such attachment is utterly important for science. It is useful to recall perhaps the most epoch-making operational definition of the century, that of simultaneity advocated by Einstein.

We all have an intuitive notion of what it means to assert that two events *A* and *B* occur simultaneously. The relative velocity of movement of the bodies upon which the events happen is clearly irrelevant. Physics, however, requires a testability of the assertion and this implies the use of light. The universally accepted definition of simultaneity is now in terms of the remarkable properties of light. Completely counterintuitive but “operationally” satisfactory!

This example has been mentioned for only one reason: to illustrate the compelling force of attaching concepts of a theory in natural science to processes of testing that theory. (The example is not so good in illustrating a second important point: when the theory is attached to established procedures, alternative procedures are ruled out by definition. In cancer research this may be of practical importance, but in theory of relativity there do not seem to be possibilities other than attaching concepts of time to that of light. Very wonderful and strange, but so it seems to be.)

In general, the successes have the effect on most researchers of stabilizing the gigantic set of, in part, rather arbitrary assumptions that they have made. In other, simpler words, the successes stiffen what one simply takes for granted. This stability is one of the main reasons for talking about a tradition of research or, today, talking about a paradigm. It belongs to the anatomy rather than the physiology of the paradigm. To the physiology belongs the function of auxiliary hypotheses. When a theory does not quite live up to its good reputation, assumptions are added that quite consciously are made to help the theory get confirmed in new areas or in recalcitrant subareas. If the auxiliary hypotheses help, their ad hoc character is easily forgotten, and by a sort of strange feedback, the success adds to their reputation. They are now believed to be valid on their own. They furnish another protective wall against the onslaught of serious questioning of the whole Christmas tree of assumptions.

In all I have said I have used a logical model, the Christmas tree of derivation (or inference) from assumptions. Kuhn and his followers have gone into psychology, social psychology, and in general, the genesis of paradigms of the grand type. I should perhaps add that such analysis is as pertinent as the logical, but talking to researchers in the present and not about the past, the logical and conceptual analysis must be the point of departure. It takes the actual views of the researchers seriously and just points

PHILOSOPHY OF SCIENCE

out the large freedom of choice owing to absence of strict verification and falsification of theories. All is hanging in the air, more or less. One never need feel closed in because so much is peacefully taken for granted by most of one's excellent colleagues. The status of established so-called facts is not logical and conceptual; it is more like the establishment of habits and customs. With today's intricate processes of observation, the purity of data is less obvious than ever. Scientists are entitled to go to bed wondering, and to enjoy wondering. They may indulge in an open-mindedness toward alternatives that sees few limits.

Science as Behavior: Prospects and Limitations of a Behavioral Metascience

Metascience from the Far Outside and from the Near Outside

The various sciences of religious prayer do not presuppose the existence of any gods. If a religion with a *G* is studied, the researcher does not have to be a believer in *G*. The sentences he writes have meanings, truth-values, and designated objects that are independent of the question of whether *G* exists. The phenomenologist of religion does not study the believer's relation to his god, but the believed relation. If the believer reports that lately his prayers have been heard and rain fell on his lands, this is used as material, as object, for analyses of various kinds. As to the validity or truth of the believer's assertions (insofar as they are assertions), the phenomenologist of religion retains his *epoché*. The same holds for the existence of any objects of religious worship.

How far is it possible to maintain such a detachment and still understand what is supposed to be studied, namely, religion?

The programs for a science of science that are the primary concern of this paper are characterized by looking at a scientific enterprise (or a part of it) as an object to be studied "from the outside," not as an undertaking to engage in and improve upon. They are phenomenological insofar as they maintain, more or less, an *epoché* in the sense just described.

The qualification "more or less" is essential because there are theoretical as well as practical limits to the degree and extent of attainable alienation from the claims of scientists. Beyond certain limits, it becomes more

This article was reprinted with permission from *Scientific Psychology: Principles and Approaches*, edited by B. Wolman and E. Nagel (New York: Basic Books, 1965), 50–67.

and more doubtful whether what is studied is still science. After all, the practicing scientist explains what he is doing in sentences presupposing the existence of a vast number of objects—elementary particles, matter waves, stimuli, drives—and what he refers to as the scientific enterprise is defined in terms of intentions and aspirations.

On the other hand, the basic aim of metascience as discussed in this article is to study a scientific enterprise without engaging in it. The scientist himself not only uses but also mentions sentences in his own discipline. His work consists partly in comparing contemporary theories, which implies neutrality within certain narrow limits. When these limits are widened, the conception of metascience envisaged in this article emerges. An answer to “What is cosmology?”—as a piece of metascience from the near outside—would describe the contemporary cosmological undertaking but would take part in assessing neither the truth-value nor the “fruitfulness” of the various theories, nor of the specific presuppositions of that discipline. This requirement, if stated clearly, implies that the metascience cannot even presume that there is a cosmos such as is described by the cosmology under study.

Falsification and rejection of a particular theory should not occasion retraction of anything said in the genuinely metatheoretic description of the theory and of its prior acceptance. However, because the falsification of a theory sometimes also undermines the reasons for accepting the existence of certain objects or entities in terms of which the theory is described, the program of the scientist of science must be to eliminate sentences that presuppose their existence. It will, however, retain names naming the expressions used in the theories studied. “Cosmology,” for example, may be used in the metavocabulary as a name of the expression “cosmology” in a cosmological textbook.

To avoid the very special problems confronting a sociology of sociology, a theory of learning of theory of learning, or a logic of logic, I shall limit the expressions “a science of a science” or “*x*-ology of *y*-ology” to cases in which *x* and *y* are different. That there are special problems connected with “*x*-ology of *x*-ology” does not impress scientists so much as philosophers. Thus, E. C. Tolman (1932: 430), the purposive behaviorist, says that he himself asserts “that all human knowledge, including physics and purposive behaviorism and our own present remarks, are but resultant of, and limited by, human behavioral needs and behavioral capacities.”

I shall discuss the attempts that have been made to supply the conceptual tools for a certain kind of factual science of science, the behavioral. The discussion will, I think, bring to light considerable theoretical difficulties inherent in the programs of such a science of science. Whatever the ultimate limitations of a molar behavioral view and way of attack, however, I believe that this approach will continue to be a potent agent in the carving out of new fragments, disciplines, or departments of science.

We are in a position to describe a psychological system as an object only when we place ourselves within a frame of reference that is different from the ultimate, specific premises and rules of that particular system. This does not necessarily force us out of any psychological frame of reference whatsoever (see S. Koch's *Psychology: A Study of a Science*, and similar undertakings). The studies from the near outside are not independent as to general presuppositions of the science. The objects of the science are presumed to exist. A revolutionary change in beliefs concerning these objects might therefore affect the acceptance of the metascientific theories from the near outside.

Research Behavior Units: A List of Scientific Doings

Behavior conceptions are generally pragmatic and functional. They try to focus on the deeds of the researcher and describe his theoretical results in terms of achievements and adjustments, such as bringing order into something.

In one sense, the scientific enterprise is described by its practitioners themselves in terms of acts or deeds. These descriptions may be improved upon by researchers looking at other researchers from the outside, but still participating in general. This aspect is what Albert Einstein (1934: 30) had in mind in his maxim, "If you want to find out anything from the theoretical physicists about the methods they use, stick close to one principle: don't listen to their words, fix your attention on their deeds."

The behavioral metascientist will find that the scientists themselves have, in part, a vocabulary that seemingly describes a behavioral aspect of the general scientific enterprise. Let us suppose he takes over the terms in this vocabulary.

The initial behavioral metascientific vocabulary will accordingly con-

tain terms in general use among practicing scientists: observing, experimenting, measuring, classifying, describing (in gestures, writing, or speech), explaining, predicting, discovering, inferring, guessing, interpreting (symbols, processes), providing, deducing, calculating, justifying, presupposing, defining, discussing, refuting, accepting as working hypotheses, posing a problem, proposing conventions, accepting conventions. In what follows I refer to this (fragmentary) list as the list of “kinds of doings.”

The terms themselves permit interpretations in different directions, some of which lead outside the behavioral aspect of science. The location of the boundary depends on the interpretation of the key terms *behavior* and *science*. “Located outside” is a strictly logical, or formal-logical direction. For example, logicians of science such as Karl Popper stress the view that they are concerned with relations between statements of science, such as implication, and that terms like *observe* and *falsify*, as used in the logic of science, have nothing to do with processes in time, as do psychological events. In studies that are not logical in a strict sense, but often so called, the terms of the list of doings are likewise taken in nonbehavioral senses. Rather, one is supposed to study the *logic* of the use of “observe” and “falsify.” What the scientist actually does need not be described in the terms of his factual science.

Even when (as throughout this paper) “behavior” refers to the behavior of *living* beings, there is an institutional, more or less purely sociological sense of each of the words listed that falls outside the behavioral aspect of science. Thus, if one were to contribute to the institutional sociology of science, the accepting or rejecting of conventions would certainly be central themes, but the subject of inquiry would ultimately be defined, not in terms of behavior, but in terms of institutions. Furthermore, there may be a phenomenological interpretation, essentially bound up with the philosophy of Edmund Husserl or with related philosophies.

All the terms of the list, however, at least in one plausible interpretation, do refer to doings of human beings as individuals or groups. The characterization of observing, experimenting, and the others as “doings” is appropriate and significant in various degrees. Concerning explaining as a kind of doing one may, for example, ask, Who was it that explained this phenomenon? Did he explain it completely? When did he start? Has he yet finished? Have others explained the same? How did he explain it? Did he

do it well? Did he do any deducing in explaining? Why did he do it as he did? Could it be explained better otherwise?

Approaching his subject, the metascientist announces his intention to study some area or aspect of the scientific enterprise. The words he uses when he does this are not yet those of a metalevel; we may conveniently conceive of him as a scientist announcing his intention to other scientists in their common jargon. He may, for example, say that he intends to “study our explanations as explanations.” In spite of initially *using* the term *explaining*, the behavioral metascientist is committed in principle, when carrying out his intention, to taking the occurrences of that term in speech and writing *as objects*.

What this implies is conceived differently by metascientists of different philosophical inclinations. To some it implies abstraction from intended meanings and a focus on the extensional aspects—for example, on the string of letters e-x-p-l-a-i-n-i-n-g, or on a certain phonetic unity. By others, among them some phenomenologists of Husserlian inclinations, the object “explaining” is taken as an intended meaning.

If it seems convenient to the metascientist, he will continue to use the term *explaining*, but as a common name for occurrences of the term *explaining* in certain scientific contexts, or as a unit of intended meaning. To obtain fluency of use on a new level, he must undergo a process of unlearning or “extinction,” which poses practical difficulties that I shall not discuss. Analogous difficulties have been discussed elsewhere, for example, in literature dealing with the unlearning of natural or physical geometry when starting on pure or abstract or axiomatic geometry. I shall here assume that the extinction problems of a metascientist can be solved and that his objects can be named and identified by using the ordinary terms of the practicing scientist with new metalevel meanings.

One of the best surveys of pertinent behavioral literature is to be found in Campbell (1959). It refers to works by D. Bakan, G. Bergmann, L. Bertalanffy, E. Brunswik, D. T. Campbell, H. Feigl, W. Köhler, K. Lorenz, R. K. Merton, J. Piaget, G. Polya, E. C. Tolman, B. Whorf, and others. Most of these contributions have been made under the spell of a particular ideal, that of nomothetic science. There is a premium on general behavioral *laws*, as these quotations attest: “Categorizing is the means by which the objects of the world about us are identified.” “[B]y categorizing as equivalent dis-

criminally different events, the organism reduces the complexity of its environment." As formal scientists studying the research behavior of a scientist, we should investigate inventions in the light of his discriminatory behavior and capacities in general, his perceptions ("what he sees"), and his discriminations of degrees of convenience: "We invent logical systems such as logic and mathematics whose forms are used to denote discriminable aspects of nature and with these systems we formulate descriptions of the world as we see it and according to our convenience" (see Bruner 1956: 7–21). "Attainment of concepts" is defined as "the behavior involved in using the discriminable attributes of objects and events as a basis of anticipating their significant identity."

It seems more hopeful to look for structural and phenomenological accounts, taking behavioral science of science as primarily an idiographic discipline.¹

Value of a Total Behavioral View

By a total view of science, I mean a perspective or vision that, at least implicitly, embraces any part whatsoever of science as well as science as a whole.²

The implications of a total view, for example of a logical or sociological character, may in principle be carried through consistently in the form of an elaborate construct, or emerge without being noticed by those who share the view. Thus, a psychologist immersed in research on general features of learning processes, using rats in a more or less natural environment (not inside elaborate machinery as has been done recently), will in the long run, or remarkably soon if intensively engaged, acquire a very special way of looking at living beings as systems of behavior. For the psychologist or philosopher who is interested in basic ways of looking at and conceiving the world, any special views generalized or inflated into total ones are of great interest. A behavioral total view has an intrinsic philosophical interest.

The professional behavioral point of view, like many other professional views, has a strong intuitive component. In some researchers (Brunswik, Naess, Tolman), it has had the character of a vision. To those who do not share the intuition, more or less general statements about science as behavior that are obvious to the behavioral scientist sound far-fetched and un-

sound. For example, to look at *proving* as a piece of behavior or doing is rather rare and, to most, rather unnatural. When it is looked at freshly and consistently in this way, however, certain relations are immediately evident that are sometimes judged to be nonexistent by the philosopher or the mathematician, who habitually takes a logical point of view in science of science.

The selection of the terms of rule formulation is made on the basis of existing rules and habit formations among the prospective users of the rules by the rule senders. If any major variation in habits occurs, the rules will mislead or, rather, result in indefiniteness. This will be discovered, for example, by a contradiction or a non sequitur within the formal system. "A calculus is never completely regulated [*geregelt*] in the sense that the rules for manipulating the sign complexes prescribe perfectly unambiguously the way of manipulating" (Naess 1936a: 152). Kaila (1941) argued that this view does not make sense, since we have proofs of the completeness of the calculi or propositions and of the predicates. When the rule giver and the rule follower are seen behaviorally "from the outside," however, the incompleteness is intuitively clear. It is also clear that "behavioral incompleteness" is different from incompleteness as conceived by a participant in logical or mathematical research. Kaila's argument is conclusive only if the metalevel intended in a consistent behavioral account of rules is utopian or impossible in principle. If the latter is the case, the behavioral "vision" is self-deceptive, and Kaila's view is correct.

Historically, the behavioral point of view gained its strength from a dominant trend in psychological methodology stressing the importance of defining the objects investigated in terms of observables. "Behavior" came into favor in part because of a kind of maxim that a person's behavior is completely and conspicuously observable. Because of its genesis, the behavioral point of view might be considered to be infected with a latent "observationism." There is, however, no necessary connection between taking a behavioral point of view and "observationism" as defined by Peters (1951), for example. The behavioral point of view is independent of operationism and logical behaviorism; it does not imply that research activity must start (in time) with observation rather than with formulating a problem, with getting an idea or hunch, or with a need to test an idea already there. What is implied in the idea of behavioral science of science seems rather to be a

view of the researcher from the outside rather than as a colleague. The expression “from the outside” is to be taken in the metaphorical sense of “as a nonparticipant in the researcher’s special doings” rather than in the sense of concentrating on his gross overt movements.

In practice, for a nonparticipant the possibility of saying anything of interest about the researcher seems to depend on being or at least having been a colleague. The behavioral “vision” therefore depends on a process of extinction (in the terminology of learning theory); and because of the large scope of this extinction, it is tempting to say that it depends on a process of alienation (*Entfremdung*).

The value, then, of a behavioral view as a total view has several components: (1) as a philosophical system or subsystem of the “alienation” class, (2) as a means of keeping apart and working out in isolation the logical, factual, and other aspects of a vague or general question, and (3) heuristically, in suggesting concrete behavioral research projects.

The Behavioral Approach and Behaviorism

The behavioral accounts of science are highly sensitive to the use of the term *behavior* in the conceptual structures of *psychology*. We must tackle the problem of what behaviorists mean by behavior.

To eliminate certain confusions, it should be borne in mind that behavioral scientists have not intended to follow the “ordinary usage” of *behavior*. In the vernacular, “to behave” is usually qualified without reference to definite forms of behavior. The answer to “How does he behave?” is not “He is running” or “He is testing his hypotheses,” but the provision of adverbial qualifications like “admirably” or “badly.” To report on behavior and separate it from any evaluation is itself to behave rather strangely.

Let us inspect an astute behaviorist’s comments on an example of behavior.

According to B. F. Skinner (1953: 15), “Narrative reporting of the behavior of people” is “part of the sciences of archaeology, ethnology, sociology, and anthropology,” but “only the beginnings of a science.” As an example of narrative reporting about behavior, Skinner uses the highly instructive sentence, “She slammed the door and walked off without a word.” Such a remark, however, is typical of a participant in social events,

not of a scientific observer. Another witness might have reported the “same” event as “She ignored his question, moved slowly toward the door without looking at anybody, and disappeared.” Still another might have reported that “After this, she did not do anything—she just left.”

If every truthful, conscientious participant’s account is taken as an observational basis, behaviors will be strange, multidimensional events indeed. On the other hand, if a certain selection is made—for example, if “She shut the door” is preferred to “She slammed the door”—a process of behavioristic purification is started that seems to lead to absurdities. What would be the correct, nonparticipatory description in which only the public, molar behavior itself is reported?

Let us imagine that an ordinary behavioral description is made more and more detailed and complete. Will it ever include a kinematic description in terms of smaller and smaller segments of behavior? That is, *prima facie*, very unlikely. Let us try to formulate a complete behavioral description of an event, starting with an everyday description—let us take “She slammed the door.” Is it true, as Skinner argues, that behavior is a difficult subject matter for science “because it is extremely complex”? It would seem that if the event, which took place within the interval of one-third of a second, were described kinematically in a ten-page report as a *complex movement*, the report, for all its length, becomes no more accurate as a description of her slamming the door. The real complexity is related to the “social structure” that may or may not make an event a case of slamming.

Edwin R. Guthrie (1935: 29 ff.) uses terms such as “the continuing flow of behavior” and “total behavior” and suggests that science cannot cope with it in its entirety. This suggests that Guthrie wishes to define behavior in terms of movements.

What is indeed difficult is to make a *report* of the event “itself” that can be used as a *common basis* for various interpretations, some in terms of slamming, others in terms of mere shutting. I suggest that an “objective” report by a specialist in acoustics and a specialist in limb movements, “on the movements and the resulting noise,” would scarcely constitute a report that could be used as such a common basis. On the other hand, if the participants’ reports are taken as ultimates, one may no longer speak of different accounts or interpretations or meanings of *the same* event or behavior.

Guthrie (1959: 165) has stressed that “the hope that response could be

treated just as movements in space" failed to carry us very far toward the understanding of behavior. "Patterns of stimuli and patterns of response have their psychological significance and usefulness tied to their patterning—pattern as pattern must be recognized and dealt with." *Can pattern as pattern be recognized?* It seems that a pattern must be a pattern *of something* within or on something. Guthrie's critique of "an entire generation" (Koch) of stimulus-response theorists leaves us in doubt as to what will be the subject matter of the next.

There is, of course, no reason a priori why "behavior" and forms of "behaviors" cannot, in spite of unorthodox semantics, be useful key terms within (so-called) behavioral science, that is, as terms suggesting a witness's view from the "near outside." However, behavior must then be dissociated from reports about "movements" and associated intimately with terms such as *doing*. "What is he doing now?" rather than "What is his behavior now?" is what is answered by accounts of the kinds that molar behavioral scientists class as observational. The usual answers about what somebody is doing are quite straightforward, in terms of the participator, at the witness level, not at the level of a complete stranger. Projection tests show that different people will answer the question "What is he doing?" very differently, "seeing" different doings. The resulting accounts are understandable and of interest to the acting person as true or false accounts of what he really is doing. If a report on mere movements is offered, he may legitimately protest, for the result is to substitute movements for doings. The same kind of protest is justified if the doings are in terms of other "far-fetched" frames.

Even in the cruder forms of behaviorism, "learning," "searching," "finding," and "making hypotheses" were not defined or conceived as classes of movements. In the field of rat learning, it was early stressed that the learning of a maze is not the establishment of any kind of definite sequence of movements or overt behavior fragments. In certain experiments mazes were flooded, yet rats easily found their food by swimming in spite of having learned them by running. Similarly, a description of research in terms of behavior must not be expected to consist of descriptions of concrete pieces of behavior (behavioral "episodes") corresponding to sentences of the kind "N. N. now falsifies the hypothesis *H*" and other sentences referring to the doings of scientists.

There is some truth in Ryle's contention that there has been a kind of "official" program in psychology to investigate states of consciousness as such, but since the famous article by William James (1904), "Does 'consciousness' exist?" the mind-stuff theory has not had much influence in psychological research. The notion that immediate experience can be investigated as mind-stuff and separated from the "material" world was not taken seriously, and molar behaviorists rejected the dichotomy between "sense data" and "physical reals."

So much in defense of the behaviorist's general view. As regards the *results*, the view suggested by R. Peters (1951), that these psychologists were rather sterile, can scarcely be taken seriously in light of the history of psychology since World War II (see Steward 1954).³

My main contention in this section is that certain psychologists who called themselves behaviorists worked within a conceptual framework that proved adequate in dealing with large areas of problems and that directly furnishes a workable research program for a factual science of science. It will not, however, automatically be a science of science at a genuine metalevel, studying the scientific enterprise as an object, but rather studying additions to science at the object level. A program of step-by-step elimination of participatory assumptions is called for, starting from "nearest outside."

A scientific enterprise is seen from the near outside within a contemporary framework more or less congenial with the enterprise studied. This implies that there is, strictly speaking, no "actual scientific practice" or "methods such as are actually used" to be investigated behaviorally from the far outside. There are only practices as seen by participants in research, more or less colored by definite traditions and schools, and by prevailing terminological and conceptual idiosyncrasies and ideological convictions. The slogan "Do not listen to what the scientist says, but study what he does" is misleading. One must listen and take part.

Later I shall turn to certain grave difficulties confronting those who try seriously to implement a program of a science of science that consistently occupies a genuine metalevel. One of these difficulties can be clearly stated with reference to the notion of "operation," a central notion in behavioral descriptions of the scientific enterprise.

The Behavioral Approach and Operationism

According to operationism as defined by P. W. Bridgman, a concept is identical with a set of operations, and if a term is used for several operations, it expresses several operations.

An operational account of a scientific term or assertion is also a behavioral account, provided that an operation is a kind of behavior. Operations are performances; they are carried out correctly or incorrectly and with greater or lesser skill. To make operations a subclass of behaviors, we must presumably interpret this term in the direction of "doings."

Both the theory of relativity and quantum physics have contributed to a strengthening of behavioral tendencies in describing science. Physicists have explicitly distinguished between the intuitive pseudomeaning of a term, based on appeals to the imagination, and physical meaning in terms of certain doings such as measurement, which not only in theory, but also in practice, may be carried out. In the case of quantum mechanics, invocation to manipulate certain equations according to a set of rules has often replaced appeals to the imagination. The retreat from *Anschaulichkeit* has been a retreat from "connotative imagery" in the sense of the behaviorists.

If it were required of all physical theory that all terms be expressive of *physical* operations, modern physics would not fulfill the requirement: some terms are mathematical. Operationists characterize mathematical concepts as sign manipulations. If a physical theory need be testable only as a whole, its terms then need not all be expressive of physical operations. The mathematical manipulations, especially in the form of derivation operations, can be shown to furnish contact between the physical concepts of the theory and the operations of testing, such as measurements. As I understand it, a necessary condition for tenable operationist accounts of modern physics is that testability be required of a physical theory (in the form of a hypothetico-deductive system) only as a whole, not separately of every proposition contained in it. If this weaker requirement is made, the operationist can meet the argument of Einstein (1949: 679) against operationism. He complains that operationists overlook the point that a theory, in order to be physical, needs to imply only *some* "empirically testable assertions in general."

The operationist account of physics is clearly different from a logic of physics in that the operations are conceived as observable activities. One is

to *look at* the physicist and see how the different kinds of measurements are carried out. The operations are not conceived as rules governing observable activities. If the ultimate characterizations of an operation were to include a reference to a rule, this would spoil the postulate of observability. Rules are not observable activities.

Study of the operationist influence shows very clearly the danger of practicing scientists' taking metascientific theories seriously as guides for their own activity. Thus, the operationist influence in psychology has in part resulted in severe inhibitions of imagination in the researchers. In "heuristics" any kind of introspection, myth formation, or cognitive imagery may be of help to the theorist. Even in taking up the question of testability, there is room for much of this as long as the Einsteinian requirement, broadly approving as empirically testable any theory that connects at least at one point with nonverbal operations, is satisfied.

Strangely enough, it is among scientists of behavior that the idea of Bridgman's operationism as a kind of generalization from observation of scientists gained most enthusiastic support. Thus, S. S. Stevens (1953: 160), in a paper avidly read by psychologists, wrote that Bridgman in an "empirical spirit observes the behavior of his colleagues and finds that what is considered an *explanation* 'consists in reducing a situation to elements with which we are so familiar that we accept them as a matter of course, so that our curiosity rests.'"

With this faith in a nonpsychologist's capacity of observation as a basis, it may be understood that Stevens felt he was "witnessing the birth of a new discipline: the Science of Science . . . science-makers . . . asking themselves how they make science and turning on that problem the powerful empirical weapon of science itself" (ibid., p. 159).

The foregoing metascientific account of explanation implies not only that curiosity in scientists can be identified as a general attitude, but that a behavioral study can reveal the difference between "curiosity whether *p* or not-*p*" and "curiosity whether *q* or not-*q*," where *p* and *q* are sentences in physics. Further, it implies a criterion-measure of "familiarity" and of "reduction of situation." All these concepts would then have to be either defined in terms of scientists' doings or connected into a unified theory from which some empirically testable propositions might be derived (using Einstein's minimum requirement).

It is not here suggested that the idea of an empirical behavioral meta-scientific discipline of explanation is completely utopian, but that its implementation presupposes questions of observation and testing that must be faced squarely before anything is accepted in the form of general results. Even if, through observation of behavior connected with research occurrences of a term *T*, we are led—and exclusively led—to observation of operations, tremendous difficulties confront the behavioral observer in deciding what constitute the specific characteristics of a definite kind, *B*, of behavior unit or doing. The question “Exactly what is he now doing?” is of a difficult type, normally capable of adequate answer only from extensive knowledge of the situation, which again implies knowledge of many happenings before “now.” Operationists presume that they have the capacity of giving adequate (definite) answers, because they presume the existence of an inventory of definite, identifiable operations, each having some unique characteristics: “We must demand that the act of observation equivalent to any concept be a unique set, for otherwise there are possibilities of ambiguity in practical applications which we cannot admit” (Bridgman 1948: 6).

As an example, let us take an answer to “What, exactly, is he *now* doing?” formulated as “He measures the simultaneity or lack of simultaneity of two events far from a stationary clock” (see Einstein 1923: 38). Exactly which traits or fragments of an actual sequence of behavior within a specified region of time and space are relevant and which irrelevant? Observing a scientist at work, ten bystanders who are not instructed about what the scientist is doing, or that he is a scientist, may each note down a hundred observations, each from his own perspective or interest, and none referring to any traits mentioned in the ordinary, conventional description of measurements of time. The definition of the behavior *B* (or, more precisely, of the kind of behavior) will be able to include reference to only a small number of traits. A *principle of elimination of irrelevant traits* is needed, and such a principle cannot be found by an observer who has no education in physics. Bridgman (1949) indirectly testifies to the difficulty of operational analysis when he credits Einstein with seeing the importance of certain details in measuring that “no one had had the imagination to formulate” or “to see that they might be significant.” Normally, students gradually learn to know which traits of behavior fragments are significant, that is, which traits are considered significant among contemporary experimental physi-

cists. The learning, however, does not include learning to give a verbal report stating explicitly which traits are significant. The behavioral metascientist could not get his data regarding the physicist's doings or behavioral units directly from the physicist by asking him, even if, as a metascientist, he were able to do so without giving up his metalevel.

The audible word-event "rascal" varies acoustically in an extremely complicated way. No researcher has been able to characterize acoustically the limits of satisfactory pronunciation of that term; the relevant acoustical studies are guided by phonetic knowledge. Similarly, exploration of forms of research behavior must proceed from an intuitive understanding as a "colleague" of the researcher studied. The absurdity, or at least extreme difficulty, of exploring in the other way (starting from more or less narrow behavioral observations and trying to arrive at the description of research units such as "testing the hypothesis H ") can be adequately experienced only by trying to abstract from what our colleagues have "whispered" about their research objects and research projects. An experiment of this kind (performed by the author in 1938) consisted in noting down the overt behavior of a psychologist engaged (he said) in studies of anxiety in rats. The rat suddenly found itself on an unexplored open space and began running around. High frequency of defecation and long distances of (bewildered) running were taken as manifestations of anxiety. Adopting the position of (behaving as if) not knowing what the psychologist "had in mind," the metascientist placed himself "accidentally" in such a way that the rat could not be seen. He nevertheless succeeded in obtaining an "observational journal" very nearly isomorphic with that of the psychologist by listing his movements with head, eyes, and hands. This observational journal could be used, however, for an indefinite number of different hypotheses about the psychologist, one being that he was practicing certain rules for coordinating head and eye movements and writing down symbols for those movements in his protocol.

The lesson from this kind of "wildlife study"⁴ of researchers is that one must be extremely cautious about claiming that an assertion belongs to metascience if (as is here the case) it is thereby claimed that it belongs to a science *studying* science. Suppose the metascientist, uncritically, had introduced his account by stating that the psychologist A was "studying anxiety in rats." Suppose further that he was informed by A , ten years later, that

rats of course do not suffer anxiety, but only fright and that *A* therefore had not studied anxiety in rats ten years previously. The “metascientist” would then in a collegial way *change* his account, a sure sign of sameness of level.⁵

Maze Epistemology

The shortcomings of attempts to describe the scientific enterprise from the far outside in terms of research behavior can be shown to derive from one fatal flaw, that of “maze epistemology” (Naess 1936).

A psychologist constructs his mazes and assumes that his own description of them is the correct one. He introduces food or obstacles of various kinds and describes the movements of the rat, freely using references to his maze and the objects in it and postulating a drive and a goal; the rat is said to make correct or wrong turns, to be a fast or slow learner, to make true or false hypotheses, and to make good or bad cognitive maps of the maze.

What happens, though, if one of them tries to carry over the attitude of unquestioned superiority, or this absolute frame of reference of the experimenter, to the metascientist’s studies of the scientist? One notices at once that the metascientist does not, and cannot, make the mazes. What is the scientist looking for? Where are the goal, the culs-de-sac, the rewards? What is the problem situation? The metascientist must *ask* the scientist for information about the maze.

A description of science or the scientific enterprise may be said to be subject to the *error of maze epistemology* when the (would-be) metascientist announces his descriptions of the object of scientific research as the psychologist announces his description of his experimental setup—the maze, the food, the obstacles—whereas the descriptions are in fact more or less regurgitated information obtained directly from the scientist.

The error of maze epistemology results in the production of a quasi metascience, an ephemeral vision of science in terms of a part of the contemporary beliefs of scientists. In the interest of a genuine, if only fragmentary, behavioral view of the scientific enterprise, a step-by-step elimination of direct information by suitable methods should be carried out before claims are asserted that one has reached, in part or in approximation, a genuine metalevel.

The error is not only relevant to a description of contemporary science,

but also to historical accounts. It is known in that field as the “error of absolutism” in relation to the scientific beliefs of the historian’s contemporaries. Important chapters of the history of science have recently been rewritten by students of history who do not take the victor’s account (for example, Lavoisier’s) any more seriously than that of the defeated scientist (the phlogistonist’s).

Reformulation of the Program of Behavioral Science of Science

Concluding, we may characterize a practicable and consistent program of molar behavioral science of science as follows: it is a program of description and explanation of the scientific enterprise in terms of the scientist’s molar behavior units in the sense of doings, not motions, in research situations, using, as far as possible, the methodologies of behavioral science. The frame of reference of the descriptions, that is, of the observational journals, will *not* be independent of the conceptualization of a definite tradition or scientific culture. There will be no description of scientific practice in itself (*an sich*) as something invariable. A radical pluralism is thus called for.

The conclusion that participation is a necessary characteristic of the metascientist’s relation to the scientist and his enterprise is of special significance to psychologists, because their own relation to the subject matter of psychology, the human being, is of the same kind. This structure of participation might be further developed as a supplement to the less fundamental discussion on formal aspects of psychological methodology.

Behavioral Science, Logic of Science, and Philosophy of Science

The rise of psychology as an empirical science in the last decades of the nineteenth century inspired philosophers and scientists to advance theories *about* logic within the conceptual framework of a psychology of association, often combined with biological concepts of adjustment and achievement. These quite legitimate inquiries were, however, often marred by excursions into formal logical and methodological domains—an invasion that met little organized resistance before Frege and Husserl because of the lamenta-

bly low level of active logical research in those times. When this situation changed, reaction against “psychologism” set in with such tremendous force that not only were psychological conceptions swept out of logic, but a kind of witch hunt was carried far into the domain of general philosophy of science, a field in which many approaches are needed, and in which that of nonformal, nonnormative study must be fundamental in any delimitation of actual objects or processes studied. Thus, authors using terms that admit of both logical and nonlogical interpretations were criticized as if they *intended* to talk within the domain of logic, even if they did not. It is a stroke of irony that the antiempirical attitude has been strongest among philosophers who, in a broad way, belong to the empirical traditions in philosophy, whereas the philosophers more influenced by Neothomist, Marxist, phenomenological, or existentialist philosophy encourage systematic study of nonformal and nonlogical aspects of science.

The impact of symbolic logic and the renewed interest in logical problems quite generally, together with the perennially strong inclination of philosophers to rely on pure thinking rather than on masses of empirical material, has worked in the direction of identifying philosophy of science with “logic” of science. The term *logic* is used in more or less broad senses, the main emphasis, however, being on the philosophical irrelevance of actual happenings—for example, the way a term happens to be applied. A nonfactual program is explicitly stated by Karl Popper.

The deep effects of trying to take up a consistently logical rather than factual point of view is seen, for example, in Popper’s (1959) account of the empirical basis of science in his book on logic of science. A theory is (by definition) tested by basic statements. Certain stipulated logical or “formal” requirements for testing can be satisfied only by singular existential sentences. Therefore, theories are tested by singular existential sentences. Consequently, theories are, by definition and stipulation, such that we can derive the (admirable) falsifiability doctrine of Popper. What goes on is practically at all times *logic* of science—as we are justified in expecting from the title of the book (which is *The Logic of Scientific Discovery*). The question of observability is treated rather lightly, as are other “material” (Popper’s word) problems of immense nonlogical importance, problems that emerge when we ask, What *kinds* of singular existential sentences are to be classed as basic? Which are the kinds that have, *in fact*, been thus classed until now?

Popper complains—rightly, I think—of traditional confusion of logi-

cal with nonlogical aspects of problems and deplores the ill effects for logic of science. I myself regret the bad effects for the material, or nonlogical, aspects. It is, incidentally, to be expected that explicit, consistent treatment of the nonlogical aspects will make it easier for the logician to eliminate them. The recent history of the logic of science has shown how difficult is this elimination. Today there is a tendency to derive material conclusions from formal investigations just because modern logic has furnished explicit and scientific ways of handling formal problems, whereas material problems are largely dealt with intuitively or implicitly in the absence of any established nonlogical science of science.

The Case Against Science

The central topic of this paper is thirteen complaints or grievances formed in countercultural¹ environments and directed against science. Most of them are formulated in a way that suggests a general disapproval of the scientific enterprise. My main conclusion will be that they are on the whole well-founded insofar as they oppose dominant trends of science in the industrial states (including certain eastern European ones), but on less firm ground when they take issue with science in general.

There are two subordinate topics. The first is the antiscientific, antirationalist countercultural reaction to establishment science and to the way science is taught at the universities. This reaction sometimes takes forms verging on the comical, yet it is both healthy and important in its main concern, which is the narrowly intellectual and technical rationality of industrialized science. The second topic is the role of science in a society that exists in ecological equilibrium.

Eulogy: The Cheerful Face of Science

The term *science* evokes significantly varied reflections and emotions. I belong to the thousands of researchers who experience intensively positive associations. I am reminded of a search for Miocene carnivores in a California desert. We dug out bones of small horses and camels, having located a water hole near which they, millions of years ago, presumably gathered and

This article was reprinted with permission from *Science Between Culture and Counterculture*, edited by C. I. Dessaur (Nijmegen, Netherlands: Dekker & Van de Vegt, 1975), 25–48.

many of them died following an attack by carnivores. Where were the attackers, though? It was not easy to figure out where to dig for their bones.

This stay in the California desert, where we studied conditions of mammalian life twelve to fifteen million years ago, was entirely meaningful. Neither the midday heat nor the scorpions could lessen our joy. The tools were cheap, and agricultural districts in the vicinity enabled us to live in ecological balance. Thus was science established as a main ingredient in an entirely satisfactory way of life.

The extensive generalizations of textbooks concerning Miocene horses do not, of course, reveal any of the joyful aspects of research. I quote: "The Miocene saw the horse family flourish to a greater extent than did any other period. It began with one lone genus, *Miohippus*, which soon branched into *Kalobatippus*, *Hypohippus*, *Anchitherium*, and *Parahippus*. In its turn *Parahippus* gave rise to *Meryhippus*, which branched into *Protohippus*, *Hipparion*, and *Pliohippus*" (Loomis 1926: 134–35).

Unhappily, science is often more or less identified with texts written in strange jargon. The preparation of such texts is an important part of the scientific enterprise, but to make people who yearn for science as a way of life memorize them may soon be regarded as one of the barbarisms of our century.

In what follows I shall accuse dominant trends of modern industrialized science of a number of crimes. However, my charges do not touch upon science as it can and should be.

My enthusiasm for science in general is gone. Like thousands of others, I have come to see the dark side of the scientific enterprise. My enthusiasm for research as a way of life is still there, but that kind of life has become a rarity in industrial societies and is not characteristic of what science as a gigantic enterprise does to society and to that major portion of youth who never experience research as a main ingredient in a meaningful way of life.²

Dyslogy: The Sad Face of Science

A short semantical note is now called for. The term *science* is used in many senses. One authoritative use defines "a science" as "a coherent system of more or less general propositions systematically supported by evidence obtained through the use of particular methods that have an interpersonal

and intercultural status.” The propositions of such a system are said to express scientific knowledge and are thought of as having a high degree of certainty, though they are not necessarily either plainly or eternally true. Scientific propositions are rather thought of as eminently testable and falsifiable. The body of scientific knowledge is considered to be accumulative.

Studies of science in this comparatively narrow sense are now often said to concern the internal relations of science, but “science” is also used in the very different sense of the total scientific enterprise. As such, it has been undertaken on a vast scale only recently. In industrial societies science has become gigantic in scope—bureaucratic, impersonal, and politically powerful.

In what follows we will be exclusively concerned with science in the latter sense. Studies of science understood as the scientific enterprise are said to be studies of the external relations of science. Obviously, however, the internal relations presuppose the external ones, and vice versa.

We shall see how criticism of the external relations also affects the internal relations. Thus, as scientists we cannot remain aloof from the vigorous protest movement at the universities and in society in general.

Science has a gay and angelic as well as a sad or diabolic profile. The latter shows itself when we consider certain well-founded grievances against science.

Grievances Against Science

Science and the Powers That Be

Since research is part of the quest for truth, the scientific community has been widely expected to take a vigorous stand against people in power who manifestly propagate untruth. Twentieth-century opposition to pseudoscience, for example, was partly led by scientists, among them inmates of concentration camps. Wherever people in power have directly interfered in matters of scientific concern, some scientists have protested and others have at least supported the protesters.

Yet in cases of false accusation, distortion of contemporary history, and false propaganda in general, it is said that scientists by and large keep away from the conflict. Authors, artists, and other groups are said to be more alert, whereas scientists try not to antagonize sources of funds, equipment,

or campus facilities. The scientific community did, for example, acquiesce in Hitler's transformation of the universities, and in modern dictatorships scientists are said to keep quiet provided they are handsomely rewarded. The sad truth is that a scientific career is not conducive to civil courage.

Science Serves the State

Especially in the United States there is a widespread reaction to defense research being done at universities with the tacit approval of the vast majority of scientists. The Vietnam War showed first-rate physicists and biologists at work inventing devilish new weapons of war. Moreover, this was condoned by the research community at large.

In general, it seems that any kind of regime and any kind of project, including scientific methods of torture, are more or less condoned by the majority of scientists in the sense that they do not join fights against these things. They organize neatly, at least in some European countries, as pressure groups for higher pay and so on. They belong to unions. Their lawyers fight hard to safeguard their clients' material and other privileges.

There is mounting pressure in the West to make science the servant of centralized governments. The still fairly high degree of autonomy in selecting research topics is being challenged. "Science . . . can no longer hope to exist . . . , through some mystique, without constraints or scrutiny, in terms of national goals, and isolated from the competition for allocation of resources which are finite" (Ivar Bennett, deputy director of the Office of Science and Technology, 1966, quoted in Greenberg 1967).

The cost of modern science and of a university education is tremendous, and it is only fair that government officials and the public should try to impose restraints. It would, however, be much better for society and for the individual researcher if the scientific community showed wisdom and self-restraint and turned to a philosophically and ecologically justifiable way of life.

Elitism and Privileges

There is a pyramid of prestige, pay, and privileges in the universities and research institutions. Careerism is rampant and often there is a pervasive at-

mosphere of competition. Science has created big and ugly pyramids of power. In Eastern Europe scientists who are willing to serve the government and to keep quiet constitute a new “aristocracy.”

The industrial states encourage an all-against-all race for well-paid positions with high status. A scientific career offers just this. The state tries to discover talent by testing and screening. Successful candidates are offered pay and privileges that set them apart from the majority of people.

Marx said about one hundred years ago that the Anglican church would rather forgive an attack on thirty-nine of its articles of faith than on one thirty-ninth of its money income (*Capital*, foreword). Science at that time could perhaps not be compared to a church, but its material wealth and the affluence of its “bishops” may cause it to resist social reforms in a manner that resembles that of the European churches in Marx’s time.

The Pilate Reaction to Criticism

I shall now consider one of the most serious charges leveled against science: its moral indifference. It is said that the scientist cannot be blamed for the extensive misuse of scientific results. “[D]ecisions about the use or abuse of scientific discoveries are made by politicians, ultimately by the elected or appointed representatives of society; they are not made by scientists” (H. J. Eysenck 1954). It is also said that the scientist has neither the means to predict how his results will be used nor the capacity eventually to find out how they have been used. What sudden modesty!

In many cases scientists do have the capacity—but not the will—to investigate the uses made of their discoveries. In other cases, especially in purely theoretical fields, there is no way of ascertaining what will be the consequences in the long or even the short run.

A few scientists have discontinued theoretical research because of suspected misuse of their findings. An example is James Shapiro, the Harvard biologist, who said some years ago: “In and of itself our work is morally neutral. . . . But we are working in the United States in the year 1969. . . . These people [in power] have consistently exploited science for harmful purposes.”

In many countries there are organizations that help scientists who are “conscientious objectors,” that is, those who leave their jobs rather than

work on dubious research projects. In the United States one of these is the Society for Responsibility in Science, which has branches in Europe.

Support of Technocracy

The close relationship between technological and scientific development in the West finds expression in technological thinking on the part of scientists. There is, for example, a widespread belief in technical solutions for social problems. Although the slogan “social engineering,” which was common among social scientists in the 1930s, is no longer in use, the idea lives on.

In many countries—of which Norway is one—governments increasingly take action on the basis of recommendations from technical agencies. One of these agencies calculates what is misleadingly called the increasing need for energy. The term *need* sounds so human, but the scientific calculation and extrapolation do not reflect human needs; they measure the effective demand on the world market, effective demand being defined as one that is backed by money. The Norwegian government acts upon the scientific conclusion concerning the tremendous increase in our need for energy in 1980, 1990, the year 2000, and so on, and decides to engage in vast oil adventures along our coast and to destroy rivers and landscapes in order to produce electricity. Politicians lack the means to work out alternative policies, since behind the recommendations of technologists may be months or years of scientific work, costing millions.

The countercultures vigorously protest against the unholy alliance of scientific personnel and institutions of modern technoculture. Their advice is to “get out,” and indeed many gifted young men have given up their technical or scientific careers.

Where a technological outlook prevails in the social sciences, we find rationalizations of societal arrangements reminiscent of Huxley’s *Brave New World*. In the 1930s and 1940s prominent social scientists predicted that politics would be replaced by science-based decision making, with a technocracy functioning as executive branch.

The utopia of scientific politics is largely dead, but opinions derived from it are very much alive. According to one contemporary believer in scientific politics, Daniel Moynihan, the social sciences “will give govern-

ment an enlarged capacity to comprehend, predict and direct social events” (1975). Considering the general quality of governments, such increased centralization is highly undesirable.

What is desirable is that people, not governments, obtain an enlarged capacity to comprehend, predict, and direct social events. That is, it is desirable that people direct themselves rather than be directed.

As the term suggests, a technocracy is a society that stresses the development of means for their own sake, while neglecting goals. Means, such as transportation, energy, organization, engineering, administration, and planning, are developed uncritically. The cultivation of values is not taken seriously. Nor are reflection and an autonomous lifestyle encouraged.

Again, our ultimate conclusion cannot go against science as such, because our criticism concerns only a dominant trend in science. Increasingly, the opposition to technocracy is strengthened by research started or instigated by individuals belonging to one of the countercultures.

Neither natural science nor the social sciences are inherently conducive to excessive technical development. What is known as scientific neutrality is not itself a scientific thesis but part of an antiphilosophical philosophy. The excesses stem from cultural and economic trends that can be explained only on a broad historical basis. Without science, the modern technocracies and their devastation of nature could not have developed, but it does not follow that a general downscaling of the scientific enterprise will result in diminished technical dominance.

Some parts of the scientific enterprise clearly need to be expanded. Think, for example, of the new trend in economics that stresses social cost rather than monetary cost. There are also studies of economic systems based on non-Western value scales. Thus, a Buddhist economics has been developed in Burma.³

Manipulation

In Western societies, industry makes use of vast scientific resources in order to sell its products.

The use of psychology and other sciences for the manipulation of tastes and ways of life has increasingly come under fire. Critics have noted that even the definition of certain sciences suggests their manipulation and

degradation of the individual and society. The theoretical goal of psychology, says H. J. Eysenck, "is the prediction and control of behavior" (1954). Such control may be invisible; that is, the populace may be scientifically controlled in its behavior without having any clear idea of what is happening. Hannah Arendt concludes: "The trouble with modern theories of behaviorism . . . is that they actually are the best conceptualization of certain obvious trends in modern society" (1973).

This indictment concerns certain trends, not psychology as such. The widely used book *On Becoming a Person*, by C. R. Rogers and hundreds of other books show how important trends in the behavioral sciences join hands with the counterculture to reduce manipulation.

Many people generalize their criticism of manipulatory scientific projects into an indictment of the role of science in industrial society. Yet certain behavioral studies today aim at reducing interference and manipulation. I have in mind the vastly expanding field of the ecological study of animal (including human) behavior. The general conclusion of these studies amounts to a warning that we know too little about the long-range effects of the interference with and manipulation of nature to be justified in continuing them.

Lack of Respect for Personal Dignity

Certain trends in modern behavioristic psychology have been taken as symptoms of a lack of respect for personal dignity. The most notable representative of such trends is B. F. Skinner, who openly favors a technology of behavior. One can, according to this prophet, change human behavior without too much understanding of how it has come to be as it is, or how people experience their own selves, freedom, decisions, and goals. "[W]e do not need to discover what . . . plan, purposes, intentions really are . . ." (Skinner 1971: 15).

Already, very tough kinds of so-called behavioral therapy exist. It was discovered in Norway that behavioral scientists systematically use isolation to change the behavior of a child. In the subsequent public uproar, science and expertise were often seen as the cruel, inhuman agent.

Drug addicts have been treated with a drug that produces paralysis and agonizing suffocation. The doctor whispers to the immobilized patient

frightful accounts of the dangers of narcotics. In another kind of experiment, the big spider known as a tarantula proved to be a most effective horror in aversion “therapy.”

The ecological movement fights for the rights of animals. A vast number of research projects use animals in painful experiments. One kind of justification will no longer hold: that of merely advancing human knowledge. Nor is it enough to point vaguely to a possible use in medicine and related sciences.

The policy of universities should be to minimize cruelty through self-control, and not wait to change things until outside pressures build up.

Pretense of Political Neutrality

If what is said in previous sections is true, then the scientific enterprise is not a neutral power in relation to contemporary political and social movements. Not telling the truth to the powers that be has the effect of backing the regime in power, whatever its merits or faults. The acceptance of projects such as Camelot (See I. L. Horowitz 1967)⁴ and many others in the social sciences reveals an interest in the perpetuation of existing power structures. The acceptance of special privileges makes it tempting to go along with the regime that defends those privileges. The support of technocracy is not politically neutral but serves industrial interests and producer interests in general, rather than low-income consumers.

Whereas equations, whether in mathematics or ecology, do not have political meaning, the choice of favorite fields for costly research is in part politically motivated.

In spite of these obvious relations between politics and science, there is a persistent claim of political neutrality, or the claim that science is democracy’s best friend (Sir K. R. Popper). The historian of science Joseph Needham proclaims that democracy might “almost in a sense be termed that practice of which science is the theory” (1949).

Open-mindedness and disinterested registration of facts have been thought of as supporters of democracy. Even a great scientist, however, may well be ignorant and dogmatic in all matters outside his specialty. His contact with people at large may be very superficial.

It must be conceded, though, that heavy-handed interference by politi-

cal commissars in scientific discussion is a condition that many scientists are willing to fight against, even at the risk of imprisonment and death (see, e.g., Medvedev 1969 on the Lysenko affair).

Autotelism, Intellectualism

Does scientific knowledge have intrinsic value? Is knowledge to be sought for its own sake?

In my view it is never knowledge that has intrinsic value: only increased understanding does. The value refers to a subject that understands, given a finite capacity and available time. Understanding is personal; knowledge is impersonal.

For Roszak and many others of the counterculture, science as such has an inherent norm that says that knowledge is to be sought for its own sake “as a thing apart from compassion, humanity, wisdom, beauty” (Medvedev 1969: 253).

Against this it must be said that if science as a set of propositions or as a methodology is abstracted from the human scientific enterprise, it cannot contain its own recommendation. There will then be no norms saying that somebody should use the methodology without regard for wisdom or any other intrinsic value. On the other hand, if science is taken in the sense of the total human scientific enterprise, the norms of methodology are only one set of norms among others. Any action will have to be judged in the light of priorities. Thus, the complaint of lack of wisdom or compassion cannot be a general complaint in order to be justified. It only concerns particular actions or projects.

It is said that science has become more dependent on costly machinery, but this observation mainly reflects the needs of industrial states. There is nothing inherent in scientific methods, whether in the natural or the social sciences, that in an absolute way requires costly machinery. All depends on priorities of fields of research.

There is a minority of a few thousand people who do competent research without any public support whatsoever. They have some kind of job in order to obtain the necessities of life but spend most of their time in research. Their use of costly machinery is very limited and could be still less in a somewhat different society. Our conclusion is a counterattack: why do

not more people in the counterculture turn to research? It might make their life richer and more meaningful. Many teachers inside and outside our universities would certainly be glad to help them on their way.

It is a valid complaint that the scientific enterprise today includes a vast number of projects that add to our knowledge, but quite irrelevantly. It is also an impersonal affair in the sense of boring attempts to obtain a degree or a position. No personal or public interest is involved.

Again, this cannot be a completely general complaint, and we all agree that it is extremely difficult to find persons or committees who deserve to be entrusted with the power to determine whether the kind of knowledge or understanding aimed at in particular projects is worth having. More wisdom is required in the research communities. More self-respect, more joy.

Science Does Not Serve the People

Marxists constitute the most important and powerful group attacking the scientific enterprise as it functions in Western societies, including Eastern Europe. They are basically antirevisionist, attacking Soviet science as vehemently as they attack that of the United States and the Common Market countries.

In general, these groups contend that the scientific enterprise, at least as it functions now, does not serve the people. I would say: "does not serve the underprivileged." Nationally it serves the exploiters, and internationally it exploits the Third World. This is evident from the fact that the scientific enterprise supports capitalism and social imperialism, and that neither of these serves the people. Science as it functions today is largely an instrument of domination. Its ideal is knowledge of the kind that supports any establishment, and hence the status quo.

Science, say the Marxists, should serve the needs of the masses rather than improve upon gadgets and services that are beyond the means of the less privileged. Medical research should concentrate on how to improve public health and not waste millions on special cures and operations that can only serve a small privileged minority.

Research in general should concentrate on the urgent problems of developing nations rather than spend vast sums on improving material conditions in affluent countries.

Under the influence of trends in China, there is also a tentative widening of the definition of research so that not just members of an elite with very special formal education can be scientists.

The “Serve the people!” movement may consistently oppose nearly every research policy at European universities without turning against science as such.

*The Limitations of Scientific Rationality and the Depreciation
of Non-Western Cultures*

To what extent do countercultural groups through “the rising antirationalism” threaten the prevailing philosophy of science—let us call it P_1 —and the university as we in the West have always known it?

There is, I believe, very little threat to Western universities from a philosophy of science different from P_1 —but what if we add certain values to P_1 : open-mindedness, tolerance, respect for the autonomy of the creative scientists? Let us call this more comprehensive philosophy P_2 .

Large countercultural groups do not think these values are upheld in Western science, and to a significant degree recent historiography is on their side. Since the Renaissance the great universities have functioned mostly as strongholds of reaction and dogmatism. The “free” universities of Germany before the world wars were authoritarian, and the opinions of the professor *ordinarius* more or less sacred. Research followed definite patterns, which were not chosen through a sovereign scientific rationality but were largely determined by general historical forces and the dominance of particular metaphysical views. I can here refer to works by I. Agassi, J. D. Bernal, H. Butterfield, P. K. Feyerabend, T. S. Kuhn, I. Lakatos, and M. Polanyi.

For the purpose of this paper, the most important conclusion is that there is no independent scientific rationality. Only total views, such as that of Spinoza, are comprehensive enough to comprise norms of rationality of lasting worth.

To return to P_2 , it seems that reforms of universities and of certain dominant patterns of research in the industrial states may well create conditions favorable to the realization of such a philosophy.

So much for rationality. Prevailing attitudes in many scientific communities attest to a rather narrow conception of what is rational—border-

ing on the merely efficient and the conventional. One subcultural complaint concerns the evaluation of non-Western cultures.

It is easy to find scientists who look down upon so-called primitive cultures. They cherish the belief that scientific rationality is an autonomous rationality requiring no philosophical or metaphysical framework. A kind of summary of textbook science is believed to furnish a scientific worldview.

An astonishing example is picked out by Roszak. He quotes Kroeber's *Anthropology*, page 298, where it is said that deviations from "scientific rationality" are chiefly found "among individuals whose social fortune is backward or who are psychotic, mentally deteriorated, or otherwise subnormal."

However, it is just as easy to quote scientists who express admiration of other cultures.

Since World War II, new branches of economics have developed that take the value priorities of developing countries as a basis for research. It is instructive to see how policies that are judged to be rational in Western industrial states are condemned as irrational within the framework of the new economics. In our industrial societies "a man who consumes more is 'better off' than a man who consumes less. A Buddhist economist would consider this approach excessively irrational: since consumption is merely a means to human well-being, the aim should be to obtain the maximum of well-being with the minimum of consumption" (E. F. Schumacher, in Daly 1973: 123–24).

Again, it is seen that while our science-inspired culture is extremely weak in some respects, it is healthier than ever in others. Far from despising other cultures, ecologists and social anthropologists often express great admiration for both primitive human and animal societies. If we were to list the twenty most pressing social problems and ask social anthropologists which of them are most successfully solved in which cultures, our industrial countries would not score high. Thus, we find scientists among our best-qualified cultural critics.

Reductionism and Positivism

We now come to one of the most interesting criticisms of science itself.

Roszak defines reductionism as the attitude "which degrades what it studies by depriving its subject of charm, autonomy, dignity, mystery. . . .

As Kathleen Raine puts it, it is the mentality which would have us see in the pearl nothing but a disease of the oyster" (Roszak 1972: 264).

It should be unnecessary to stress that the scientific study of pearls need not imply lack of appreciation, but the publication of the results of such a study is rarely the right place to express that appreciation. Moreover, only scientists can properly assess the marvelous processes by which the oyster produces a pearl, and, so far as I know, usually it is only scientists who identify with oysters deeply enough to feel regret when an oyster is hurt.

It seems to me that Roszak, like so many others, confuses science with the learning of scientific results. Roszak's criticism does not concern research but its degradation. However, there are far more philosophical arguments concerning inherent scientific reductionism. Science explains, that is, often *reduces*, the mysterious and wonderful to the understandable. "[I]ts goal is the destruction of mystery" (B. F. Skinner 1971). Any scientific explanation is partial, however, and even if it were not, mystery and wonder may remain or even increase. Chemical and optical explanations of the luster of pearls or of the processes occurring in the oyster may elicit more wonder than isolated aesthetic appreciation. The advances in biochemistry make living matter yearly more fantastic and more unbelievably ingenious, but I see no reason why scientific journals should contain artistic expressions of the deep appreciation of the subject matter. Why compete with the poets? They have enough problems as it is.

Another charge of reductionism concerns the perversion of simplicity as a fundamental requirement in scientific theory, such perversion leading to a systematic reduction of subject matter in the study of complex phenomena such as the human personality. This objection is clearly valid when theories of personality are put forth with undue pretensions, as unhappily they often are.

Simplicity may be one of the main scientific reasons for theories that make the Earth circle the sun, and not vice versa. Among competing theories of the movement of bodies in the solar system, scientific methodology urges one to adopt the theory that explains the most through the simplest means. Now the solar system is very complex. Therefore, the simplest adequate theory is highly complicated. Thus, the simplicity rule does not forbid us to recognize complexity. Reductionism, therefore, is not a consequence of the simplicity rule.

The complaint of reductionism is intimately connected with the nearly universal charge of “positivism!” The meanings of this term vary widely, but very often it stands for *lack of reflection*. The positivist scientist, it is said, does not reflect on what he personally is doing or what his group or class is doing, what his presuppositions are, and in which historical situation he is an actor. The antipositivist movement is pro-philosophical and pro-politics, decrying the lack of autonomy on the part of scientists.

“[T]o desert scientific culture in disgust at its incorrigible reductionism” (Roszak 1972: 232) reveals philosophic misguidedness or sad defeatism.

Nature as the Object of Science

In the last fifteen years extensive studies have been prompted by the question of how Western man could have developed such crude and cruel ideas about his place in nature. How has it been possible to ruin so much of nature without strong opposition from nature’s professional students? Why have some natural scientists since Galileo and Bacon been the leading proponents of the notion that nature is there to be subdued and exploited for narrow purposes, economic and otherwise?

Some have answered that it is largely owing to the prevailing scientific worldview, and the special character of natural science.

Hypothetico-deductive methodology has been singled out for special criticism. From general laws plus initial-condition statements, “predictions” are derived. Theories, it is said, are instruments for the control of phenomena through this function of prediction. The function of laws is mainly to fix the established order, to freeze existing conditions. This is clearly seen, it is said, when the social sciences imitate hypothetico-deductive methodology—as they do in technocracies.

However, the term *prediction* in hypothetico-deductive methodology is a name for directly testable sentences derived from initial-condition statements. They do not necessarily, or even mainly, predict future phenomena of interest. Nor is the tremendous stress on testability to be confused with emphasis on the control of the phenomena. The most admired hypothetico-deductive systems, such as the kinetic theory of gases, are clear examples of models, that is, of a very abstract kind of map of phenomena. The confusion

of map and terrain shows lack of real understanding of natural-science methodology.

“The world is *really* made up of atoms and the void.” Clearly, there is a tendency to take fundamental natural-science models to be straightforward descriptions of the real world. The theory of primary qualities still has its adherents. Some still hold that colors do not exist in nature but are somehow made up in our brains. Thus, there are dominant trends in the scientific community that reduce nature to a vast chaos of waves and particles without properties: no colors, no tones, no definite forms, no recognizable qualities at all.

Such a nightmarish nature, of course, only deserves to be exploited and subdued.

A deeper study of natural science (including ecology) leads us, I think, to a much wider view of its methodology. There is not one but a number of methods in natural science. Careful study also frees us from believing that there is such a thing as a definite scientific worldview. All worldviews must go deeper than scientific disciplines; that is, they must include ontology, logic, and of course general methodology, which itself cannot be “scientific” in the sense of being subject to verification.

There is a tendency to imitate natural science in the contemporary study of society. Here again, there is room for very substantial criticism. The Frankfurt School has in eminent ways attacked the technocratic aspects of the social sciences and government-sponsored expertise, both of which play an increasingly powerful role in policy formation. However, its characterization of natural science is not tenable. There is no inherent tendency to manipulation and control in the hypothetico-deductive and other methods employed by natural science.

Concluding this section, we might return to one of its introductory questions—why natural scientists have helped destroy and exploit nature. Evidently, an important minority has been doing exactly the opposite—the naturalists. Enthusiastic botanists and zoologists have since the time of Aristotle fought the haughtiness and insensitivity of man. Paleontologists have always tried to make mineral exploiters and others take care not to ruin fossil beds. It is an irony of the history of ideas that countercultural authors have adopted the technocratic view of natural science or the textbook view, which suggests that “flowers hate botany.” If so, why should not

flower-power hate science? The premise is false: the counterculture could learn a lot from natural scientists.

The Cult of Nonscience

Mainly as a reaction to the hollow pretenses of the scientific worldview, whatever is conventionally judged to be unscientific tends to be wildly popular with academic youth. Young graduates and postgraduates, some of them in responsible positions, find satisfaction in all sorts of magic, in mythologies both ancient and modern, and in ways of life consciously violating scientific rationality. Any genuine human rationality is nonscientific, and to reject the so-called scientific worldview is perhaps one of the most rational things to do today.

Recently, the worldview revealed through hallucinatory drugs, as well as the sorcery and black magic of the Yaqui Indian “Don Juan”—as revealed in the three excellent books by Carlos Castañeda—has been widely praised. For many people with a university education, the world picture of black magic seems much closer to reality than that of modern physics, behavioral psychology, and other sciences. I think these protesters may be right. What is regrettable is that they seem to consider only two alternatives, a wild scientific worldview or a wildly magical one, abandoning the main philosophical traditions of both West and East. We should ask ourselves, Do our generalizations about the modern scientific enterprise do justice also to the research done in social anthropology and many other new areas? These are genuinely parts of the total enterprise and must be considered in any adequate assessment of the present and future function of science.

The cult of the nonscience provokes firm believers in scientific rationality, whose hollowness is revealed by their fierce reaction. An act is rational only if it conforms to a consistent set of ultimate valuations. Even to defend one's life is rational only when certain norms are accepted as valid.

Nor must politics be left out. The Marxist movement and subculture have taught us to analyze present-day power constellations and not to neglect the political fight necessary to establish a rationality of a more meaningful kind than is realized today in our industrial societies.

The eminent philosopher of science Paul Feyerabend attacks the self-glorifying ideology of scientists. They do not admit their dependence on nonscience and even the unscientific. “‘Unscientific’ procedures such as the herbal lore of witches and cunning men, the astronomy of mystics, the treatment of the ill in primitive societies *are* [said to be] totally without merit.”⁵ Copernicus took over the idea of the “muddleheaded” mystic Philolaos, whose view was called incredibly ridiculous by professional astronomers such as Ptolemy. “Even today science can and does profit from an admixture of unscientific ingredients. An example is the revival of traditional medicine in communist China. When the Communists in the fifties forced hospitals and medical schools to teach the ideas and the methods contained in the *Yellow Emperor’s Textbook of Internal Medicine*, and to use them in the treatment of patients, many western experts predicted the downfall of Chinese medicine. What happened was the exact opposite. Acupuncture, moxibustion . . .” (Feyerabend 1975a)

Feyerabend has things to say about the social role of science that may gladden the heart of many friends of countercultures:

“Let us free society from the strangling hold of an ideologically petrified science just as our ancestors freed *us* from the stranglehold of religion!” Why should the ideology of science be compulsory in schools? “Physics, astronomy, history *must* be learned. They cannot be replaced by magic, astrology, or by the study of legends.” Feyerabend sees this as an inconsistency: if parents can decide whether a six-year-old child should be instructed in Protestantism or in the Jewish faith, why can they not decide whether the child should be instructed in the rudiments of scientific faiths? The governments should treat science as the United States treats religions. This means that financial support for science should “be drastically reduced.”

Again, the complaint against science is well-founded and needs to be taken seriously, but it does not touch science as such.

A last general remark on nonscience:

Because of the intellectually and epistemologically fragmentary character of individual disciplines and even of the total set of sciences at any time, a comprehensive or near-comprehensive view cannot be scientific. It follows that all consistent comprehensive views have an equal claim to validity—and none is scientific.

Science in a Community in Ecological Equilibrium

What is called the deep ecological movement has a number of main tenets.⁶ First, there is the pollution issue. The pollution caused directly or indirectly by the scientific enterprise is well known. Resource depletion is a second issue. The great consumption of energy and other resources through lopsided scientific development is under attack.

International science is hierarchical and centralized, with a built-in tendency to bypass research aimed at solving local problems. Ecological equilibrium requires intensive development of local research as well as decentralization. Self-sufficiency, not only in the material sense but also in educational opportunities, is a goal that can be rapidly attained if research is concentrated in these fields. Thus, the third and fourth aims of the ecological movement also call for a redirection of science.

A society in ecological equilibrium will probably have to eliminate many privileges. Even at the expense of professional efficiency, students and staff may have to partake in primary production. It is expected that this will also have a beneficial effect upon the prevailing ideology. It may further the basic ecological aim of making life complex rather than complicated, that is, of developing all faculties and opportunities, living in a rich local environment requiring many and varied kinds of activity, and on the whole obliterating the strict separation of work and leisure.

All in all, the deep ecological movement tends to give greater priority to action research—relatively short-term, goal-directed, informal investigations directed toward solving practical problems on the way toward ecological equilibrium. Because of the prevalent methodological primitiveness, high officials in universities and research institutions tend to scoff at such research problems. It is easier to get money for projects using sophisticated machinery and furthering what is now called eternalist science—science resulting in propositions of lasting value and general interest. The local problems of survival—physically and spiritually—are mostly not of this kind.

Why Not Science for Anarchists Too?

Das war eine grausame Salbe! I suspect that this or some similar exclamation will spring to the lips of many readers of Paul Feyerabend's essay and "Theses."¹ At the risk of being judged pedantic and completely lacking in humor, I should like to take the opportunity to sort out and comment upon a selection of norms and hypotheses suggested in the two pieces.

External Relations of Science Underrated?

It is true that the study of science's internal relations, such as the mutual implications of hypotheses, or the influence of one theory upon the acceptance of another, has been carried out with more energy, and has (perhaps) been more willingly supported by the research administrations of English-speaking countries, than the study of external relations. These latter are primarily the relations of the scientific enterprise (including the scientific communities or scientific social systems) to society in general, including all social systems, national and international. However, since the meeting of the International Congress of the History of Science and Technology in London in 1931—with ample Soviet Marxist participation—and more specifically, since the triumph of military science in World War II, the external relations of science have been increasingly studied, and, what is more important, studied critically as part of a political and economic establishment. The reader is invited to inspect the short appendix at the end of this paper.

This article was reprinted with permission from *Inquiry: An Interdisciplinary Journal of Philosophy* (New York and London: Routledge, Taylor & Francis Group) 18 (1975): 183–94. It was originally published as a reply to Feyerabend.

One central theme in this connection has been the function of science within so-called advanced technical-industrial societies (the United States, the Soviet Union, and the European Economic Community, in particular).

It is a main thesis of Johan Galtung, for example, in his *Methodology and Ideology* (1977), that there is a clear and detailed isomorphism between rules of scientific methodology and ideological posture. There is ample evidence for this—though of course the correlation between Galtung's own methodology and posture also needs clarification.

Grievances Against Science as Part of the Advanced Industrial State

A great number of grievances against uncritical acceptance among scientists of the aims and institutions of the advanced technological societies have been formulated and are under discussion.

Paul Feyerabend's papers offer valuable formulations within this debate. In schools and universities, science is still largely taught as if it were an ahistorical phenomenon. As teachers we are all more or less responsible for the deplorable effects of this, and should support those who work for change so that future students "will study science as an historical phenomenon *and not* as the one and only sensible way of approaching a problem" (Feyerabend 1967: 175).

Feyerabend proposes that schools give equal opportunity to magical and other ways of approaching a problem, and that none should be obligatory (ibid., pp. 175–76). Excellent—at least insofar as there is a widespread illusion to combat.

The Illusion of a Scientific Philosophy

The use of formal-logical, mathematical, psychological, and other limited scientific and nonscientific techniques within a broad debate on philosophical issues has, I think, contributed positively in the historical development of research. At the same time, though, a "positivist" and "reductionist" tradition has developed that takes Western scientific techniques and conceptual frameworks too seriously and scorns anything else, especially metaphysical, religious, artistic approaches. Conceptions of "scientific rationality"

have been promoted that are narrow, intellectualistic, and provincial, taking Western natural science since Galileo as the sole paradigm.

The technically advanced conceptual frameworks used in philosophical debate are sometimes taken to constitute the whole of philosophy. There will naturally be a reaction against this, and Feyerabend helps to bring it about.

Science Not Considered Neutral

Feyerabend claims that science is not neutral or without prejudice but is “an historical phenomenon” (ibid., pp. 169, 175). Yes, and hermeneutics, the Frankfurt School, and much Anglo-American sociology of knowledge have all contributed to the detailed picture of science as a historical, political, and ideological phenomenon. These aspects of science have been studied with such intensity that sometimes the internal relations of science have disappeared from view. This accounts for the widespread acclamation of Hans Albert and others who support various forms of Popperian rationalism in the ocean of continental European “antipositivism.”

New Lifestyles: For an Elite or for the Many?

The Role of Research

The cultivation of spontaneity, creativity, nonparticipation in the rat race, downgrading of grading and of formal education—all this plays a part in new lifestyles. To whom, though, are these lifestyles open?

Somewhat different attitudes toward science are required depending on whether the new anarchistic lifestyles—in beautiful natural surroundings and concentrated around essential life needs—are supposed to be open to many people or only to a few, a small elite, as is the case now. Further, the fortunate elite has to consider whether it is going to try to help the less fortunate. In what follows I presuppose that a new lifestyle is going to be possible for many and therefore requires political action within the existing framework of so-called advanced industrial societies. As will become clear, I hope, we shall have to support many kinds of research, some strictly scientific, others rather sloppy, and to join in the opposition to others. Insofar as making programs goes against Feyerabend’s philosophy, this of course violates his principles.

Science for Subcultures

Today's nonviolent anarchists and nonanarchists try to maintain old-fashioned, or develop new, forms of community, adopting lifestyles different from and in opposition to the dominant ones. The emerging subcultures have members and supporters among scientists. With their high status and access to people in power, the latter are sometimes able to contribute to the defense of the new communities, for example, by preventing their erasure through administrative action. There are also lines of research that are directly influential in defending such communities, for example, those that furnish arguments against the further undermining of small communities. Besides the typical establishment-supporting science, there is also science helping the minorities who wish to find their way out of the present impasse in the technical-industrial societies. Maybe the help is little, all too little, but one should not fight science in general if this means destroying a source of support for, say, nonviolent anarchists.

Underestimation of Nonscientific Knowledge

From the history of research we know that insight among people without "scientific" background and training is often superior to that of highly trained scientists. Thus, when experts are asked about the environmental consequences of certain building ("development") projects along the coast, local fishermen can often furnish more relevant data and theories than the scientists ever could. In other cases, scientific projects costing enormous sums of money, at least from the point of view of the local people in developing countries, produce only a couple of insights that to them have long been commonplace. Feyerabend is, I think, completely justified in combating the overestimation of insights gained through methodologically "correct" procedures, and in combating the illusion that scientific theories are inferred by some kind of inductive logic from indisputable data. This overestimation is not, however, a general attitude, and one of the ways of combating overestimation is to teach better, more critical philosophy of science, especially history, sociology, and politics of science in a philosophical perspective. This means not less, but more relevant science! Feyerabend is right, too, I think, in asking for less concentration on science in education. Here there is a genuine problem.

Teachers are educated so as to feel competent only when distributing general knowledge—and the “best” knowledge tends to be conceived as scientific. Defense of other kinds of knowledge requires more courage and stamina.

Small-Scale, Soft, Action-Oriented Science

A substantial part of research has modest pretensions as regards methodology. If an investigation is carried out a little more systematically, with somewhat more explicit assumptions, and attention paid to some extent to what has been done by others in the field, it is called science. Consider, for example, a social psychologist testing the hypothesis that children on their way to school are careless in traffic. She does so by drawing up some statistics on where there have been accidents, and finds that some places show far more accidents and that those places have certain things in common. So to some extent she disconfirms the original hypothesis of carelessness and supports the hypothesis that it is the road engineers who have been careless. She recommends radical changes in the way traffic is handled.

What Do All Kinds of Science and Research Have in Common?

The above example is perhaps too crude a rendering of the particular “action research” I have in mind, but the main point is this: in general, research is only everyday finding-out done somewhat more thoroughly, reported somewhat more accurately, and with a little more stress on testability.

Approximately the same conclusion is valid if we look for common characteristics in research done in extremely different cultures. We must then accommodate Pānini’s grammar, Ramanujan mathematics (which lacks proofs), Egyptian geometry, and so on.

Science Helps Us to Learn About Nonscientific Cultures

“Galileo played the practical knowledge and general philosophy of craftsmen and artists off against the theoretical knowledge of the schools, and thus furthered mechanics” (Feyerabend 1967: 172). Something similar happens today. Research of the most diverse kinds—from medicine to military science—can learn from practitioners, magical and others. Moreover, action

research is a central slogan in applied social science, which is highly influenced by people who have jobs outside academic circles, such as social workers. In China a broader conception of science than that of the West is being evolved. Its program is to mobilize the inventiveness and special know-how of ordinary workers, giving their ideas a chance to be put into practice, as was the rule when something useful was discovered by established scientists.

Thus, a broad movement within the communities of scientists tries to put into practice Feyerabend's recommendation that "we must use *all* ideas, *all* methods, and not just a small selection of them" (1967: 173).

There is a healthy tendency today to mix science and nonscience. Thus, in social anthropology one lives in a nonindustrial society in order to try to grasp—by no definite "method"—what is going on.

The line between science and nonscience is not as marked as it once was. One reason is the increasingly frequent practice of not marking "research" as a separate item in the budgets of undertakings that require a mixture of research and many other kinds of activity. Nearly any specialized activity today, in our strange societies, requires some form of research, and usually of a rather practical kind. So why try to disentangle what is so intimately connected?

"Primitive tribes have more detailed classifications of animals and plants than contemporary scientific zoology and botany" (ibid., p. 173). Yes, and it is mainly scientists who are every year bringing more instances of this to our attention—that is, to the attention of people within certain "generalist" milieus. The fields of human ecology, especially social anthropology, are being increasingly cultivated. Students from engineering, business administration, theoretical physics, and other hard-boiled areas crop up in institutes that are concerned with societies very different from our own overdeveloped industrial ones. Unhappily, though, there is a shortage of funds and facilities! Hard science still dominates, as do "hard" techniques, although soft research and soft and "intermediate" techniques are developing steadily. (Cf. E. F. Schumacher's *Small Is Beautiful*.)

Status of Scientists Too High?

"[Scientists] have more . . . authority than they deserve" (Feyerabend 1967: 170; cf. p. 176). Yes, in terms of privileges, but when scientists use their specialties to help solve urgent social problems, for example, problems of

health or resource distribution, why oppose their well-earned status? The urgent social problem here is to increase the status of social workers by giving them the formal education they presently lack.

The status of zoologists, botanists, plant geographers, ethologists, and other “soft” scientists has been rather low within the hard-science establishment. Through the environmental movement, though, these people are not only more respected, they are even listened to by people in power. I do not think we should oppose this status. Their job is difficult enough as it is.

Conclusion: (1) The desirability of a reduction in scientists’ status depends upon what kind of scientific activity we are talking about. (2) Reduction of earnings and privileges is desirable and will probably reduce their status.

There Is No Scientific Rationality

Feyerabend attacks the narrowness of scientific rationality (*ibid.*, *passim*). In some scientific groups and communities, rationality is conceived rather narrowly. Acupuncture, extrasensory perception, herbal lore, and hundreds of other phenomena are rejected out-of-hand.

Broad, open-minded conceptions of rationality have also had their representatives among scientists, however. Today, all the above-mentioned phenomena are discussed and research instigated in order to keep frontiers moving. Social anthropologists such as Carlos Castañeda and Michael Harner not only investigate sorcery, but take part in it as a matter of course. Castañeda’s works are listed in curricula on a par with those of Galileo and later representatives of modern science.

Furthermore, researchers supported by scientific establishments are taking up such themes as Kirlian effects, ozonotherapy, homeopathy, and auriculotherapy, and are doing it within a Hippocratic framework.² Insights found in nontechnical, nonindustrial societies are taken seriously and our own tendency toward provincialism counteracted.

Resistance to Scientific Propaganda

“Build up the resistance to *all* propaganda, including the propaganda called ‘argument’” (*ibid.*, p. 176). Argumentation within scientific activity

may well have a propagandistic function more potent and less easily detected than elsewhere, and so-called scientific textbooks deepen the propagandistic element among people who are less able to test the propositions than the scientists. I would think, however, that modern, highly critical mass-communication research, including propaganda analysis, should continue to be one of the ways in which resistance against any propaganda is fostered—this in spite of its use of argument in the analysis of examples of propaganda.

A considerable problem is that those who are good at propaganda analysis tend to be politically passive, perhaps because resistance to propaganda correlates with resistance to being influenced by any communication. Isn't what Feyerabend has in mind sometimes—for example, when writing articles—resistance to propaganda other than his own?

Research and Lifestyle

"Basic beliefs, such as the theory of evolution . . ." (Feyerabend 1967: 176). It is excellent to try to avoid propaganda in support of theories of the evolution of species. Students might be given an opportunity to acquaint themselves with various beliefs—say, beliefs concerning fossils—in various cultures, perhaps including our own Middle Ages. This would introduce them to the play of the devil, a long-neglected theme, at least at MIT and other prestigious places. I think, however, that one should not shun paleontological materials, for example, the inspection of the bones of a succession of horselike creatures: Eohippus, Mesohippus, Miohippus, Anchiterium, Kalobatippus, and so on—or even better, participation in a refreshing fossil hunt in a beautiful landscape. Again, though, only a small minority are today able to choose how to live and to do research. We need political action in favor of enlarged opportunities for the many.

Some people are able to combine research with anarchist lifestyles and healthy scepticism toward grand theory, whether evolutionist or antievolutionist. A general decrease of available funds for research will make it more difficult except for a tiny elite to combine research with the lifestyles of our subcultures. As before, my conclusion is: not less research, but more *relevant* research—relevant as part of a meaningful life.

Stronger Belief in Magic May Strengthen the Belief in Technical Science

A stress on education in magic might have effects that would be deplorable from the anarchist viewpoint: a strengthened tendency to look upon spectacular natural science as magic. Pedantic methodology is much more important in sorcery and magic than in research. Influence from a public versed in magic might strengthen the scientific establishment rather than the opposition.

Some Science Is Good for Anarchists

It seems that Feyerabend generalizes unduly his experience among admirers of modern big science, especially the cult of science among philosophers of modern physics. Much of the social and historical research of the left-wing opposition has practically all the features that Feyerabend finds lacking in what he calls science: researchers have little respect for pedantic methodology, they believe implicitly in “anything goes,” they are dedicated to radical reform or to “revolution,” their “scientific” pretensions are moderate, they extol cultures other than the industrial, they stress nonintellectual aspects of rationality, and they fight against the elitism and waste of the hierarchical establishment science. If the trend of oppositional research continues for another decade, research worthy of acceptance by Feyerabend may grow to be one of the significant factors in the fundamental change of Western industrial society. After all, the dominant trends in science reflect to a high degree the kind of society in which it functions, and only general changes in society can change the kind of science that dominates. Even if what is dominant today continues to dominate, philosophy (except perhaps for the very academic variety) teaches individuals how not to be dominated by the dominant.

Science and Joy for All

Roald Amundsen in his *Through the Air to 88° North* (1924) wrote consistently as a “researcher.” On every other page there is some note on research: a temperature reading, a perception that no land is to be seen anywhere,

and so on. If we are methodological pedants, we can say that the expedition was 95 percent adventure and 5 percent mild and soft research of sorts. Heyerdahl's expeditions on the *Kon-Tiki*: 94 percent adventure and 6 percent research of the kind that leads to professional reputation. I could mention hundreds of other projects—probably more in these days than in any other age, including the age in which Feyerabend thinks science was not so bad. I refer to research projects that delight the researcher, the public, boys and girls from ten to ninety, and do not cost millions. Entire research communities are alive with such projects, and one can only regret that Feyerabend has lived so many years in the top-prestige and apparatus-dominated environment of quantum physics.

The kind of research I recommend, which I hope will engage millions of amateurs and thousands of professionals in a century not far from our own, will perhaps never be dominant. Why, though, should we look at what is dominant? *Mensch ärgere dich nicht!* Let us never be dominated by the dominant. Spinoza, or our less “fortunate” neighbor, can teach us how to concentrate on what is worthwhile.

General Conclusion

Feyerabend's indictment is primarily an indictment of the financially dominant trends of contemporary science in the overdeveloped industrial or “apparatus” countries. Other trends are supporting radical change. Even if these trends are weak, they are in excellent harmony with certain philosophical and scientific traditions of the past and of many “underdeveloped” cultures of the present. If these trends are destroyed together with the dominant, defective trends, the task of radical reform will be still more difficult.

Appendix

The following is a list of grievances against science found articulated by writers on modern cultural phenomena. I have listed only those grievances that to some extent, and if carefully reformulated, seem to me both justified and important. It is primarily the task of our scientific communities to discuss the grievances and work for reforms where urgently needed.

Current Main Grievances Against Science

1. Science does not speak truth to power. Scientists keep quiet if amply rewarded.
2. Leading scientists take part in creating new, terrible, ecologically devastating ways of waging war. Scientists support any state or regime if sufficiently rewarded. Some serve the state through research on how to torture, taking part in international instruction on how to torture without organized opposition from their colleagues.
3. Scientists do not fight their own elitist and privileged social position. Most scientists support a class society and the status quo in general.
4. Scientists neglect to investigate abuses of their findings and refuse to be responsible. Scientists claim too often, and with insufficient evidence, that they are unable to ascertain how their findings are used and to halt misuse, including uses they consider unethical or even criminal. They organize more readily to secure higher pay than to stop abuse.
5. Scientists support technocracy and irresponsible social engineering; serve the increase of waste rather than the movement to halt irresponsible resource policies; support spectacular science for an elite rather than research useful for developing countries; and support the government's capacity to control through prediction of social events rather than to govern on the basis of explicit value priorities.
6. Modern experimental science tends to be meddling and disrupting, despite its claim to be socially and politically neutral. A widespread aim of science is to control phenomena by predicting them.
7. Scientific research is characterized by disrespect for personal dignity, cruelty to animals and human beings, and usurpation of power over people through questionnaires and interviews.
8. Its adherents teach falsely that science by its very nature supports democracy and freedom.
9. Another false teaching is that science needs no philosophy or metaphysics but has an intellectually indubitable basis in itself. The propagation of the scientific attitude is really a propagation of narrow intellectualism.

PHILOSOPHY OF SCIENCE

10. Science does not serve the people at large, but mainly the well-to-do, the upper strata, and its own expansion.
11. What is called scientific rationality is mostly a soul-narrowing, superficial reliance on the intellect. Scientists lend their weight to the devaluing of insights found outside their scientific communities and look down on cultures that have no science, or very different kinds of science from that of the industrial societies.
12. Science by its very methodology is apt to support “reductionism” and “positivism,” to destroy wonder. Science requires simplification but does not admit that it simplifies. Science supports the unreflective mind and does not insist on a critical examination of its own activity.
13. Science favors a view of nature that invites dominance and rape; tends to lead people away from nature and to favor interference and change as a goal in itself; and supports the belief that nature “really” is colorless, that the physical world picture actually represents reality.

Can Violence Lead to Nonviolence? Gandhi's Point of View

Gandhi called himself an experimenter. His experiment consisted in systematically developing and consistently following the voice of conscience—following it completely and relentlessly, and using no other guideline, religious or otherwise. He spoke in these terms since it was the truth—or truthfulness—value of the voice of conscience that was important to him. The religious element enters with his identification of God with truth and justice. However, he substituted the formula “Truth is God” for the formula “God is truth.” In doing so, he kept his concept of truth but changed his concept of God.

Because he was a *karmayogi*, one who seeks the highest goals through action, it became inevitable for him to take sides in the most violent conflicts of his times. With the standard of truth as his master, it was obvious that he had to fight deprivation, injustice, hypocrisy, and untruth—and equally obvious that this would soon lead him to take part in political battles. The corollary of the identification of God with truth is that living a religious life is equivalent to pursuing truth. The worshiper of God will inevitably be involved in group conflicts.

I could not be leading a religious life unless I identified myself with the whole of mankind, and that I could not do unless I took part in politics. The whole gamut of man's activities today constitutes an indivisible whole. You cannot

This article was reprinted with permission from *Gandhi, India and the World: An International Symposium*, edited by Sibnarayan Ray (Philadelphia: Temple University Press, 1970), 287–99.

THE PHILOSOPHY OF PEACE AND GANDHIAN ETHICS

divide social, economic, political, and purely religious work into watertight compartments.

(Gandhi, *Harijan*, December 24, 1938, cited in Prabhu and Rao 1946: 81)

To see the universal and all-pervading Spirit of Truth face to face one must be able to love the meanest of creatures as oneself. And a man who aspires after that cannot afford to keep out of any field of life. That is why my devotion to Truth has drawn me into the field of politics.

(Gandhi 1956: 504)

One is justified in calling Gandhi a man of peace and goodwill, but one is also justified in calling him the greatest of agitators—he roused millions of Indians to battle. The peasants were indifferent and had resigned themselves to suppression. It had not occurred to them to take part in any conflict until Gandhi called forth demands for justice, and, more fundamentally, demands for humane conditions of existence. He stimulated them to individual indignation at their condition and at the humiliations they were suffering.

The representatives of the Indian empire very clearly foresaw how the standard of unconditional truth, combined with the standard of action, had to create conflict. They were right in supposing that Gandhi's activity would create unrest, disorder, and disobedience. The exchange between the Hunter Committee's counsel and the accused Gandhi, prior to one of his many terms in prison, is famous:

Counsel: However honestly a man may strive in his search for truth, his notions of truth may be different from the notions of others. Who then is to determine the truth?

Accused: The individual himself would determine that.

Counsel: Different individuals would have different views as to truth. Would that not lead to confusion?

Accused: I do not think so.

(Tendulkar 1952: 342)

Of course truth leads to conflict; but it clarifies, it does not confuse. A crucial point, however, is the question of *how* the battle between groups is to be carried out when both sides are relentlessly pursuing the voice of conscience.

It is commonly held that Gandhi regarded as self-evident that the voice of conscience should dictate the nonviolent form of battle as the only

effective and the only justifiable one. This is a fundamental misunderstanding. He fully realized that many will conclude, after an honest and profound appraisal of themselves and the situation, that the use of violence is the only effective and the only right course of action. Insofar as the politicians in India held this opinion, it was their duty, according to Gandhi, to arm. He criticized them for shrinking from openly accepting a program of armament even though they obviously had no faith in the methods of nonviolence. The politicians ought to have provided training in the use of arms if they lacked belief in nonviolence.

Gandhi forced a decision on the Congress Party politicians in 1934 when he proposed the replacement of their catchphrase for action “peacefully and legally” with “truthfully and nonviolently.” The proposal was not accepted and Gandhi left Indian party politics.

The methods of nonviolence are rightly associated with the name of Gandhi. His originality in this field is unique, although some of his methods have been rediscovered independently of him. Martin Luther King, Jr., is one of the outstanding names in this connection. It is often forgotten, however, that the standards of nonviolent conduct and intention are for Gandhi subservient to another standard, the highest standard in his system. He wrote:

If it is possible for the human tongue to give the fullest description of God, I have come to the conclusion that for myself, God is Truth. But two years ago I went a step further and said that Truth is God.

(*Young India*, December 31, 1931, cited in Prabhu and Rao 1946: 29)

Again, in a discussion with a friend he made this point:

“Nevertheless, your emphasis is always on *ahimsā*. You have made propagation of non-violence the mission of your life,” argued the friend, still unwilling to concede the point. “There again you are wrong,” answered Gandhiji. “*Ahimsā* is not the goal. Truth is the goal. But we have no means of realizing truth in human relationships except through the practice of *ahimsā*. . . .”

(Gandhi 1949: 104–05)

Consequently, the doctrine of nonviolence cannot, according to Gandhi, be evolved in isolation from a higher goal, which is beyond the distinction between violence and nonviolence.

The doctrine of nonviolence rises from Gandhi's personal conviction of a fundamental equality in the destiny of all men, and of their equal right to self-expression. His personal identification with all men, however, equates injury to others with injury to oneself. In group conflicts, one gains nothing by injuring others. No fully justifiable goal may be reached by means that include planned or accidental injury to others in such conflicts. Between one's own self-expression and the self-expression of others there is no sharp boundary.

Moreover, the activist program follows from this identification; it does not help to retire from existing battles in order to avoid committing violence oneself. Violence is an evil, whether it is one's own or that of another, and must be fought. Therefore, one must seek the root of the conflict, must go to where violence is beginning or has begun.

Gandhi distinguishes between condemnation of an act and condemnation of the person who has carried out the act. Acts of violence are always wrong and evil, but this does not justify us in immediately condemning the person who acts violently. A person who in a good cause can see only the alternatives of cowardly reticence and violence does right in acting violently. That he should see only these alternatives in spite of intensive analysis of himself and study of the situation discloses a lack of insight or experience, or perhaps a lack of opportunity to train himself in nonviolence because he was brought up in an environment in which it was thought good to be shielded from raw reality. Unless one takes part in agonizing conflicts, the capacity for effective nonviolence cannot, of course, be developed.

Gandhi understood what is now commonly called counterviolence, particularly when the opponent is physically utterly superior. In line with this he expressed understanding of Norway's war against Hitler's Germany. Germany's superiority in that case made violence something akin to a symbolic act—an unconditional *no* to injustice. To small powers that are attacked, Gandhi did not say that they *ought* to offer nonviolent resistance but that they *may*, and further, that nonviolence is in the long run the only thing that can reduce organized violence and suppression.¹

When Gandhi left South Africa and started his work in India, he soon realized that the Indian masses could not immediately be mobilized in a political struggle for freedom.

Can Violence Lead to Nonviolence? Gandhi's Point of View

A starving man thinks first of satisfying his hunger before anything else. He will sell his liberty and all for the sake of getting a morsel of food. Such is the position of millions of the people of India. For them liberty, God and all such words are merely letters put together without the slightest meaning.

(*Young India*, March 18, 1926, cited in Fischer 1962: 223)

Continuous hunger produces apathy. The apathy in India was so all-embracing that it hindered every constructive effort to improve the conditions of life. The situation seemed hopeless: apathy and passivity beget self-contempt, a feeling of being totally useless or superfluous, a feeling of infinite impotence, and hence a lack of personal identity.

It was impossible for Gandhi to make any substantial and immediate change in the food situation. Thus, he had to increase the self-respect of each individual, to increase the belief that "I am something worth caring for," despite the absence of such a change. One of his brilliant schemes to this end was the hand-spinning and hand-weaving program, the Khadi movement. Gandhi said of this:

If we want to give these people a sense of freedom we shall have to provide them with work which they can easily do in their desolate homes. This can only be done by the spinning wheel. And when they have become self-reliant and are able to support themselves we are in a position to talk to them about freedom, about [the] Congress [Party], etc. Those, therefore, who bring them work and means of getting a crust of bread will be their deliverers and will be also the people who will make them hunger for liberty.

(Ibid.)

Gandhi's plan was that every family in India's half a million villages should take part in the Khadi movement by spinning or weaving. Most of the villagers were out of work for most of the year. During this time they were idle, without aim or purpose, and more often than not suffering from some disease. That Indians should henceforth be able to provide for some of their own basic needs became in itself a challenge to the government, and an act of self-assertion on the part of each Indian against his seemingly all-powerful rulers.

The Khadi movement served also to knit the Indian nation closer together. Gandhi prevented the loom from becoming a symbol of poverty by, among other things, passing a resolution that the membership dues of the Congress Party should be two thousand yards of yarn spun by the member

himself. Everyone was on the same footing, and this could only increase the self-respect of the poor in relation to the richer classes.

By means of the Khadi movement and other brilliantly conceived schemes, Gandhi succeeded in bringing into being an elementary minimum of self-respect and feeling of worth and dignity in millions of Indians. This, more than anything else, was his ethical and political achievement. Gandhi then tried to utilize this minimum to get people to join constructive projects on a large scale. As a result of participation in such projects, the emerging self-respect grew into a clear awareness of the right not only to survive but to live a worthy life, and thus of the duty to take part in the political-freedom movement.

According to Gandhi the intimate connection between economy and personal identity necessitated the carrying out of extensive decentralization and the elimination of big cities. In his *Constructive Programme* (1941), Gandhi envisaged that the 700,000 villages in India, instead of being exploited and destroyed by half a dozen cities in India and Great Britain, would be able largely to support themselves and serve voluntarily the cities of India, and even those of the outside world, so far as this was mutually beneficial. This, he said, would require a revolutionary change in the mentality of the masses. The nonviolent way, although easy in many respects, was very difficult in others. It meant touching the life of each Indian, making him feel possessed of a force hidden within him, and making him proud of his identity with every other Indian.

The essential point is this, that Gandhi acknowledged self-respect as an absolutely necessary precondition for nonviolent action in group conflicts. When it becomes obvious that the self-respect is insufficient, the struggle for independence must change its emphasis to measures aimed at increasing self-respect. Indignation and angry words are signs of insufficient self-respect, caused by powerlessness and a lack of belief in one's ability to convince the opponent.²

I give the following as an example of how Gandhi reacted when confronted with instances of abject anger.

In 1921, Gandhi organized the largest nonviolent campaign ever carried out. According to the plan, a constant escalation was to take place, month after month. The decisive phase was planned to begin on February 1, 1922, with collective lawbreaking. In Chauri Chaura, though, the mob

killed twenty-two policemen, cut them up, and burned them, in desperate anger and counterviolence. Gandhi immediately called off the entire campaign, even though it now embraced more than one million men. Only the constructive program was continued, that is, the hand-spinning, the religious tolerance movement, and the help to the untouchables. Many politicians were intensely annoyed, and the multitudes despaired, over Gandhi's reaction.

His motives were clear enough, however. What was important to him was that the conditions for extensive nonviolence involving mass participation were not present. The requirements of self-respect and human dignity were not satisfied. Consequently, a retreat from the political to the more fundamental ethical and humanitarian level was necessary. This entailed intensifying the "constructive" measures. The episode of Chauri Chaura illuminates the importance that Gandhi attached to the preparations for nonviolent action and how clear it was to him that if events disclosed decisive flaws in the preparations, the action had to be called off temporarily or else considerable de-escalation had to take place.

We can find the same pattern in his reaction to violence and counterviolence in Amritsar in 1919. Again, he found that self-respect had given way, and participants had fled or used violence. Gandhi called off the action. He recognized his "Himalayan mistake." The masses had not been sufficiently mature for civil disobedience, a fact that he, as leader, ought to have understood. Collective excitement is a difficult factor to estimate, but it is primarily the sheer number of people involved in mass movements that makes consistent nonviolence difficult. If even one in a thousand is actively destructive, he may be followed by ten others in one violent act that spoils the entire campaign. Of course, encouraging events took place as well. In 1930, on several occasions the multitude stayed where it was when the armed police attacked it, with the result that the police refused to continue the attack (see Bondurant 1958: 96). This was exactly the kind of self-respect and self-restraint on the part of the demonstrators that, according to Gandhi, is necessary for the carrying out of an effective nonviolent liberation struggle.

I will now try to show how Gandhi's ideas on self-respect, and the conviction of personal identity and worth, are relevant today.

The last ten years have seen a lack of belief in nonviolent action within

several liberation movements. Violence both in intention and in action has become fashionable.³ The recognition of violence today springs partly from the conviction that only a small minority are able to remain nonviolent in battle and that brutal opponents are impressed by nothing except violence and are not at all ashamed of assaulting the defenseless.

From close examination of the examples and teachings of famous violence-promoting black leaders, it seems clear to me that Martin Luther King, Jr., and the other eminent advocates of nonviolence in the 1950s did not quite succeed in formulating, much less in solving, the problem of self-respect. Critics of King's strict nonviolence emphasize that a man who is without belief in himself can desist from counterviolence only by cowardice. His reflexes will require him to answer violence with violence. The only question for him is, Do I dare to?

In explaining the lack of self-respect among blacks in the United States, we must consider several factors, social, mental, and religious.

The religious traditions in the Indian societies (including the Muslim) made it easier for Gandhi to appeal to religious and cultural standards than it has been for Martin Luther King, for example, to appeal to Christian standards in addressing the black population of America's secularized industrial society. Furthermore, there has been no unifying, positive, concrete liberation program in the United States, nor any constructive plan such as formed the basis of the Khadi movement in India. This may partly account for the absence of a satisfactory solution to the problem of self-respect in America, and for the rare occurrence of conditions enabling the use of positive, aggressive nonviolence on a large scale.

The difference between the situations in America and India is not, however, that the opponents in India were less brutal. Gandhi's main field was in the area of religious conflicts. When he lost control toward the end of the 1940s, more than a million people were killed in communal riots all over India. Hatred and white-hot anger were features of the situation in which Gandhi and his helpers exercised their power, and it was not "the kind Englishmen" who put his nonviolence to the test.⁴

It is natural to interpret a considerable part of today's direct exhortations to counterviolence, that is, to meet violence with violence, as an attempt to give the apathetic, self-deprecating individual a chance to feel that he *is* something, is someone to whom the opponent must pay atten-

tion. It is probably this that Frantz Fanon has in mind (in his saner moments) when he emphasizes "the liberating effect of violence" upon the oppressed and underprivileged. He says:

At the level of individuals violence is a cleansing force. It frees the native from his inferiority complex and from his despair and inaction; it makes him fearless and restores his self-respect.

(Fanon 1967: 35)

It is worth noting that Fanon mentions the "slave soul" in the same context. There are, in fact, reports from the United States indicating that violence by blacks against the police has had an intensely stimulating effect upon the black population. All have felt themselves a little bigger, a little more courageous. A more straightforward, natural mode of speech is being used in front of the whites. A new phenomenon on the university square at Berkeley (1968) is the sight of blacks cursing whites, who stand in a circle about them listening solemnly and obviously on the defensive. This helps, of course, but only in the short run: it solves no problems.

When the use of counterviolence is argued, the typical situation put forward is that of a colored person assaulted by whites. The black leader Stokeley Carmichael usually speaks of assaults by white mobs and nocturnal terrorists. In terms of the group conflict, however, these are relatively unimportant situations. To Carmichael, and also to others who criticize Martin Luther King, it seems clear that civil rights and a comprehensive participation in the decision process cannot be obtained by fistfighting or individual use of weapons, but it is equally clear to them that these cannot be attained by passivity in the face of assault. Of this, Carmichael and Hamilton say, in their book *Black Power* (1967), that as leaders they increased the frustration of the blacks boiling with anger at the lack of action taken after they had seen Martin Luther King take a rap, and small black girls killed by a bomb in a church, since the leaders had nothing concrete to offer them. Such frustration is understandable considering the feeling of paralysis and the lack of a constructive program. These blacks had nothing to do except go out in the street and be hit once again. The absence of a continuous nonviolent struggle had its effects. To be struck down in a direct battle does not give rise to the frustration Carmichael describes.

From the point of view I have indicated, it is misleading to say that in

the United States nonviolent methods have largely been given up in favor of violent methods. What has happened during the last few years may be interpreted rather as an attempt to create the necessary conditions for a future non-violent constructive campaign on a mass basis. In India, Gandhi succeeded in bringing about the conditions required for nonviolent revolution; in other societies, it seems, these must be brought about partly by violent methods and incidents. It is quite clear, however, even from the statements of extremists such as the Black Panther leader Huey Newton, that counterviolence must not be regarded as a way of solving the major problems of liberation. Violence is conceived of only as a defensive and preliminary measure, a means of counteracting fear, panic, and the feeling of inferiority that is absolutely destructive in any effective organization of campaigns toward liberation.

The latest reports from the United States indicate that the blacks are turning their backs on spontaneous riots and destruction, and are more and more carrying on the struggle with positive action. Cooperation, especially economic cooperation, is popular. Riots and counterviolence may have had their importance, their regrettable function, in an environment in which a kind of primitive self-respect and the use of violence are very close to each other. The use of violence may perhaps have contributed in preparing the ground for the use of more effective means.

The aggressive ideologists within the black liberation movement today find that their situation is similar to that of the Indians insofar as in both cases it is a struggle against colonialism and in both cases it is a matter of revolution. Carmichael and Hamilton conclude their book *Black Power* with the pronouncement that there is a rapidly growing group of blacks who are determined to "T.C.B." (take care of business) regardless of consequences, and who will not be stopped in their vigorous efforts to attain dignity, to grasp their share of power, and to exercise the right to shape their own destiny, here and now, no matter what means may be necessary.

The point to which I am here trying to direct attention is this: the violence that seems to be recommended or tolerated by the leaders of opinion is primarily a means of gaining self-respect and thence the foundation of dignity. "T.C.B." is of course not to be achieved by riots and violence. On the contrary, the blacks were often the hardest hit, economically. Mastery of one's own destiny is only to be achieved by positive measures based on inner strength. Brute force can help only at the very outset. Gandhi envisaged, as

the ultimate measure, forming institutions parallel to those of the oppressors, that is, being self-sufficient on the largest possible scale. To form such institutions, for example, one's own schools, courts, and cooperative societies, positive not negative means are necessary. Blind anger does not further this cause.

Gandhi's campaigns had a character other than what is today commonly called nonviolent. Briefly, we can say that Gandhi's demonstrations were usually demonstrations *for* something rather than against: his agitation was *for* something; his strikes were in the same way constructive; and even his boycotts and civil disobedience were *for*, not against. A campaign *A* was not an attempt to force the situation *B*; rather, the campaign itself consisted in bringing about the situation *B*. It follows that Gandhi's actions were usually directed toward something visible, something concrete and well defined. At the same time, specific aims were included as a small part of the large general aim, the inner and outer liberation.

Many people will say that since Gandhi had as opponents not primitive brutes but the kind and decent Englishmen, his methods cannot be carried over to the racial strife of our time, the wars in the colonies, and student insurrection against police atrocities. The belief that Gandhi dealt primarily with the English stems from the fact that most of the world in the 1920s and 1930s was politically and economically interested in Britain and its empire.⁵ There was little interest in the violent strife among India's cultural constituent societies—among Muslims, Hindus, and Sikhs. Here a white-hot anger raged and, as I have already mentioned, when Gandhi let go the reins toward the end of the 1940s, more than a million people died in the riots among the different communities. Gandhi and his supporters achieved their most shining successes in just those campaigns that were concerned with the elimination of inner strife. Gandhi had good reason to emphasize to Nehru and the more nationalistic political leaders that liberation (*swaraj*) had primarily to mean liberation from the conditions that led to oppression and violence on the inner front. He wished the politicians to concentrate on those aspects rather than on relations with England.

During campaigns, one consequently anticipated and realized something of the future. One taught the opponent how one wanted the society of the future to be. Negative campaigns—those that occurred—were sec-

ondary, and usually in a comprehensible and obvious relationship to the positive aims. They were frequently protests caused by the reactions of the authorities to the positive campaigns, or alternatives to discontinued or blocked positive actions. The fact that the main emphasis was placed on positive, concrete campaigns meant that when the nonviolent freedom fighter met the enemy face-to-face, the former was in the act of *doing* something, or carrying out or expressing something he felt to be indisputably justified. In such a case, the opponent, if he adopts countermeasures, violent or nonviolent, must act so as to counter the positive aim of the nonviolent freedom fighter. For example, the untouchables entered temples and prayed (1924–25 Vekom *satyā-graha*),⁶ or the poor prepared salt from seawater at the coast. The untouchables did not demonstrate outside the priests' dwellings, nor did the poor march in processions carrying posters labeled "Down with the salt tax."

The prevailing interpretation of the commandment to turn the other cheek illustrates the difference between positive and negative nonviolence. It is not particularly difficult to train police to strike down peaceful but negative demonstrators. Passivity under attack makes it difficult for reasonably decent men to beat and abuse people, but if the police are recruited from the ignorant and the authoritarian, or are indoctrinated with the idea that the demonstrations are not advocating any good cause, the element of decency may be eliminated. Even in Norway and Sweden we have seen examples of this. Consequently, the good or just cause must show itself during the confrontation itself, whether this is with the police or with others sent to receive the nonviolent freedom fighters with violence and suppression. One might say that the realization of the positive program so to speak "under the noses of the adversaries" entails the realization of the aims set by the campaigns.

[The] Constructive Programme is the truthful and non-violent way of winning Poorna Swaraj [complete independence].

(Gandhi 1945: iii)

I have said and I repeat, that there is no swaraj for the masses except through Khadi and village-handicraft, for there is no non-violent disobedience without a continuous constructive effort. For a living, continuous mass contact is impossible without a constructive programme, that requires almost daily contact between the (non-violent) workers and the masses.

(*Harijan*, March 23, 1940)

The constructive programme had to be concrete and well defined so that the majority of the members of the society in which the advocates of *satyāgraha* worked could realize that it was to the benefit of all.

The actions during the campaigns themselves were given a positive form, so that the adversary who attacked, using violence, had to do so while the demonstrators were clearly showing what they wanted—for example, while they were entering the temples, or while they were extracting salt for their meals.

During extensive positive campaigns such as the founding of one's own schools, universities, courts of law, and so on, the attackers must destroy something that has an obvious purpose and clearly shows the intentions of the nonviolent fighters. According to Gandhi, this is impossible in a negative campaign since one only shows what one is against. What one is usually against is something well established, something that most people regard as more or less unalterable. To recognize an alternative clearly requires imagination, and we cannot expect an adversary to be in an imaginative mood if the emphasis is on annoying him.

Consequently, the decreasing adherence to so-called nonviolent methods need not be attributed to disappointingly insubstantial results from positive nonviolent actions based on a constructive program. Wherever such actions have been carried through, the result seems to have been remarkably great in comparison with the effort expended. However, the work of Martin Luther King and others, in the spirit of Gandhi, has revealed the importance of learning more about how the prerequisites for the participation of the masses in nonviolent action may be gradually fulfilled.

To sum up, we may say that the reaction against so-called nonviolence is a healthy one insofar as it is a reaction against *passive* resistance and *negative* campaigns. This reaction is likely to lead in the long run to increased acknowledgment and realization of Gandhi's ideas, which clearly point to the importance of the active and positive elements in campaigns. May the centenary celebration contribute to the strengthening of these ideas all over the world!

II

Consequences of an Absolute *No* to Nuclear War

In this essay I do not write as a kind of politician or adviser to politicians, but as a plain member of humanity—except for my special obligations owing to my education and other privileges. If I were to advise a member of a government, I would first consider his or her position, the local power structure, and the narrowness of alternatives for that particular person at the moment. Why is it the duty of a philosopher to speak up on nuclear arms and the future of life, not only human life but, equally important, nonhuman life? A philosopher, by training, has value priorities and maximally wide perspectives in time and space—a total view, however tentative and imperfect. Philosophy is a search for wisdom, the integration of reflection and action, not merely a search for knowledge. A philosopher is not a logician, an epistemologist, a political philosopher. Specialization leads nowhere. In our mammoth industrial societies, a philosopher must fight for the reestablishment of intrinsic, ultimate values in life and against the dominance of the merely instrumental. Increasing militarization is one aspect of the irrational belief that instruments and the pursuit of “power over” can save us in the long run. To threaten with nuclear gadgets is to threaten Mother Earth and is inconsistent with every wide perspective.

No philosophy of great standing gives priority to the accumulation of material possessions, nor does any favor “power over” when compared with “power to,” nor means over ends, nor nonultimate ends over ultimate ends. Philosophers have advocated as part of wisdom a life simple in means and

This article was reprinted with permission from *Nuclear Weapons and the Future of Humanity: The Fundamental Questions*, edited by Avner Cohen and Steven Lee (Totowa, New Jersey: Rowman and Allanheld, 1986), 425–36.

rich in the enjoyment of intrinsic values—values that are values in themselves, not mainly means to a further end. No decision, no policy, no technology is rational if it is not conducive to fundamental, ultimate ends and values. In what follows I take this as axiomatic.

Wise proposals are often characterized as unrealistic because people, while acknowledging their wisdom, are unable to act on them. Such a lack of personal integration is a product of the culture in which we live: our industrial societies do not foster our ability to act from our deepest feelings and broadest knowledge.

I assume, however, that individuals, given the opportunity to develop normally in an environment not degraded in obvious ways, are (sometimes) able to recognize wise decisions and act on them. Further, I assume that we are consciously able to change trends—political, social, and general cultural—at least to some extent. There are reasons to doubt this, but to reject this presupposition is self-defeating and pessimistic.¹ (The “we” I refer to are responsible citizens of nations that today possess nuclear weapons and those who live in industrialized states in general.)

What kind of policy could eliminate the roots (both causes and motives) of nuclear threats?

The Nature of the Current Nuclear Peril

Hostility between the two main nuclear powers has reached a high degree of intensity; nuclear war is a threatening possibility. It may start with a limited exchange of bombs and could stop at that, but it is just as likely to explode into a major nuclear exchange. The short- and long-range consequences of such an explosion would affect not only the belligerent countries, but humankind and living conditions on the planet in general. Such a war could not possibly serve fundamental, ultimate values of life. The situation is of vast planetary concern.²

No political objective, no goal such as “making the world safe for democracy and freedom” or “making the world safe for communism,” could be achieved through a major nuclear war. Moreover, since our planet is not the property of the owners of the bombs, nor of mankind in general, we have *no right* to threaten with bombs.

The nuclear arms of a nation do not deter if an enemy believes that the

nation will under no circumstances use them. It must always be credible that under certain circumstances the nation will use nuclear weapons within limits and go all out in their use in extremis. For the sake of credibility every nation must resort to clear threats, and increasing threats must be met with increasing threats.

The moral permissibility of ultimate full-scale retaliation cannot be upheld. The old way of defending the moral soundness of retaliation was to refer to the principle of just retribution: those responsible for the disaster had to be punished. The chance, though, of killing those really responsible for a nuclear disaster would be slim. Millions of nonbelligerents and innumerable other beings would suffer, whereas people at the top of the power pyramids would likely escape.

The danger posed by nuclear weapons would not be removed even through negotiated disarmament. If nuclear disarmament were realized through international treaties, threats to rearm would probably replace the current threats, and the technological race would then focus on means to rapid nuclear rearmament. Therefore, the threat of nuclear war would not decrease substantially as a consequence of nuclear disarmament among mutually hostile nations. Something more basic than nuclear disarmament must occur, something that has to do with nuclear cultures as *a whole*.

Until recently, the armaments of various nations could be roughly compared because rough quantification was possible. Now, with many different kinds of weapons, a great variety of sophisticated inventions related to speed of delivery, and other factors of major importance, even a rough comparison between the United States and the USSR is difficult. Consequently, the governments are able to make increasingly alarming and *untestable* claims about one being behind the other and thus accelerate a race already feverish in its intensity. To call this self-accelerating race a policy of deterrence is to name it in accord with its intended, but unlikely, result. Basically, it is a policy of military mobilization, making full-scale war possible within minutes.

So-called deterrence, I argue, cannot be a way to avoid catastrophe in the long run. Intense physical and mental mobilization for war has rarely been called off: it is more often a prelude to war. The state of mutual deterrence, if continued into the indefinite future, will almost certainly break down eventually. However, my argument does not require so strong a claim. It is enough to accept the thesis that there is at least a fair chance

that the arms race, if continued for a decade or more, will, accidentally or otherwise, lead to a major nuclear exchange. To avoid this possibility, we must move beyond the policy of nuclear deterrence.

My proposal starts with the observation that if one of a pair of mutually hostile nuclear powers unilaterally disarms, little motive remains for the other to use nuclear bombs. If a military move is made, it will be in the form of occupation or some form of domination from a distance. Thus, demilitarization is the surest means of avoiding nuclear war. It better deserves to be classed as a policy of deterrence than does the continued physical and mental mobilization that goes by that name.

If one side adopts a policy of unilateral disarmament, the worst that could happen is that it would be occupied by the other power. Of course, occupation itself would be seen as a great catastrophe, and here the role of mental mobilization is apparent. The desperate effort to win the nuclear arms race cannot be sustained without painting the consequences of military defeat and occupation by foreigners as worse than anything conceivable, both ethically and in terms of suffering,³ even though nuclear war would in fact be far the greater catastrophe. I consider step-by-step unilateral demilitarization to be the proper road to follow. It must be step-by-step because time is required for the general populace to adapt to the value priorities involved.

In the part of the world in which I live, northern Europe, only one possibility of nuclear war is taken seriously: a war between the Soviet Union and the United States. Among politicians, however, there is also a widespread fear of "Finlandization" if the arms race is not kept up; that is, a fear of dependence that could develop into domination or occupation. Finland is said to live "at the mercy" of the Soviet Union.

Left-wing groups today tend to be as critical of the way the Soviet Union is governed, including its economic system, as are right-wing groups. The significant difference is that the moderate left has a strong tendency to consider Soviet foreign policy as basically defensive, which would make it easier to accept Western unilateral disarmament. I agree with this leftist view but find it unacceptable to take the thesis of defensiveness as a kind of axiom. The hypothesis should be taken seriously that the Soviet Union, at least as much as the United States, is bent on a kind of world policing. Each power is trying to prevent the development of regimes that could strengthen the

other. The policy I recommend assumes, for the sake of argument, that the Soviets intend a kind of world policing. With this assumption and thus the possibility of Soviet occupation, we should note the difficulties that a Soviet attempt at worldwide policing would involve. The way the Soviet Union has tried to protect itself through dominance in Eastern Europe since 1945 is obviously ineffective as a police method on a wide scale. If the United States adopted unilateral disarmament, what would a Soviet government bent on world policing do? No one thinks that a physical occupation by the Soviets would be feasible, nor the establishment of Soviet communism through the very few communists in the United States. (Some authors argue, by the way, that a communist United States would be even more frightening to Russian nationalists than a communist China.) I think that world policing is impossible in the long run by any military means.

Although the Soviets might try, through military exploits, to dominate some new territories, there are strong reasons to suspect that large expansion would be extremely difficult. Soviet domination of Eastern Europe was established through strong communist minorities, and in part through a rather weak attachment on the part of Eastern Europe to the western European social system. Today, Soviet communists are extremely rare the world over, and the regimes that try to develop through Soviet help would prefer to be helped by the United States. Second, the Americans' vast material and mental effort to keep the arms race going would, in the event of disarmament, be used to help those very regimes and, more generally, to foster a desire for social justice that would only be heightened by Soviet military intervention.

A world in which the Soviet Union were armed and the United States were not would have many problems. For example, two minor states at war might ask for Soviet weapons and become politically dependent on the Soviet Union, thus increasing the territories dominated by it. History, however, does not support the belief that empire building solely by such means would last long.

Let us return to the assumption that occupation is possible. Even if the slogan "Better dead than red" is not often heard in Europe, people seemed to hold until the late 1970s that there was nothing worse than being occupied and "conquered" by the Soviet Union. It is, however, of decisive importance that the populace of northern Europe has seriously begun to com-

pare the two evils, nuclear war and occupation. Moreover, the consequences of living with the grave risk of such a war are being broadly discussed. Whereas it once took months or years to amass the materials necessary for a decisive wartime attack, technological invention has drastically narrowed the time between a decision and colossal, indiscriminate destruction. Long-range social and cultural activities cannot thrive in an atmosphere in which there may be nothing the next day to care about. People at the grass roots have started to contemplate these things.

The destructive effect of nuclear war on the conditions for life on the planet and the lack of ethical justification for such a destruction have not yet been widely enough considered.⁴ The destruction cannot be justified on the basis of human political rivalry. This presents a sufficient reason for an absolute *no* to nuclear war and the consequent adoption of a policy of unilateral disarmament. Most people, if given the time and opportunity to assess the destructiveness, stupidity, and ethical depravity of nuclear war, will come to see that occupation and "conquest" of one's country is the lesser evil. I think they will also see that it is ethically unacceptable to participate in preparations for nuclear war in order not to be conquered.

Some would respond to this argument by claiming that, although foreign occupation or domination may be preferable to nuclear war, another, much better way of avoiding nuclear war that leads neither to foreign occupation nor to domination is bilateral nuclear disarmament through treaty. As I have argued above, though, this would not solve the problem: threats to rearm would replace nuclear threats, and the carrying out of the former threats would again create the risk of nuclear war. The only solution is for one side to take the initiative to demilitarize.

The absolute *no* on ethical grounds is contested on the grounds of the relative weight of bad or good consequences. The above argument has shown, however, that the possession of nuclear armaments cannot be justified on utilitarian grounds. In addition, an absolute *no* is supported on deontological grounds. I cannot go into discussion of this point, but only refer to another area where an absolute *no* is fairly well established: the *no* to participation in torture. It implies a refusal to consider the hypothesis that one can save ten from torture through merely preparing for the eventuality of torture. The above argumentation against preparation for nuclear war rests on a double basis, one utilitarian and one deontological.

Cultural Evolution

Saying yes to a credible threat of massive, nuclear retaliation implies a long string of yesses. First, it implies a yes to the nuclear arms race, because the “enemy” naturally seeks to improve his forces to counter one’s own. It also implies an arms race in other than nuclear forms and a more generalized technological race in support of the nuclear developments. A kind of nuclear culture is implied. In democracies as well as in dictatorships, continuous moral support of gigantic military spending is a necessity. In democracies even greater conformity of opinion than in dictatorships is required about the utter necessity of a continued arms race.

In short, a yes to the use of, or the threat to use, nuclear weapons affects cultures as a whole. It affects competitiveness, education, social relations, technological development, the economic system, ethical value priorities, religious teachings, political centralization, organization size, attitudes toward nature, and foreign relations, including relations to the Third and Fourth worlds. In continuing the arms race we must say yes to these undesirable side effects.

The cultural situation is dangerous from another point of view. Not only does the nuclear arms race affect the culture, but the culture in turn promotes the arms race by creating the apparent need for a nuclear defense. Certain cultural traits in affluent industrial countries make us increasingly vulnerable and increase our desperate need to trust deterrence. I shall mention only a few:

1. *Largeness and centralization.* Large organizations can be destroyed more easily than small; large towns, requiring difficult and complex transport of energy, food, and water, are at the mercy of the occupier. Centralization of energy sources, and of resources in general, requires organization on a large scale. Smallness, on the other hand, requires general, basic skills and soft, local technology. Mutual help, group loyalty, and local resilience grow in an appropriate economy of decentralization. Clinging to lifestyles that require largeness and centralization increases the tendency to see only two possibilities: successful, purely military defense, or complete chaos and death. Nuclear deterrence leaves a meager but real chance of survival, so

why not place our trust in nuclear weapons? This way of thinking, taking certain complicated ways of life (never “enjoyed” in any culture until now) as a rock-bottom presumption, fosters an acceptance of nuclear weapons and shows a kind of parasitic relationship between recent cultural development and the arms race.

2. *Cultivation of means rather than ends.* Perpetual economic growth requires strong motivation to invest and strong motivation to buy what is produced. This involves progressive complication and vulnerability of means used to attain desired, intrinsic ends and values. The “good life” requires, to an increasing degree, a gigantic, vulnerable apparatus of organization. Explosive national and economic rivalries must be maintained to continue “progress.”
3. *Cultivation of “power over” rather than “power to.”* By the term *power to* I mean the power by which one can directly realize intrinsic values, and by *power over*, the power of access to means considered useful to secure intrinsic values. Individuals and organizations have material riches or coercive or dominating power over other individuals and organizations, fighting to get as much as possible, but the relation of such power to intrinsic values may remain obscure, sometimes even forgotten. Competition tends to center on “power over” rather than on “power to.” Every great philosophy, whether of the East or the West, has insisted that the really powerful are those who are rich in “power to.”

The wealthy, industrial cultures invite us to compete for “power over,” the sophisticated means to satisfy desires, not real needs. This favors an identification of a loss of freedom with a loss of “power over,” rather than a loss of “power to.” This again favors postures of expansion, domination, violence, and, ultimately, the use of threats of nuclear war to avoid decreased “power over.” It also works toward destruction of the institutions of mutual aid, mutual concern, local sharing, and solidarity.⁵

A successful campaign against threats of nuclear war thus requires deep cultural changes, so deep that the process may be called cultural evolution. If industrial societies are not capable of such evolution, the future of this planet is indeed bleak, for human beings and for other forms of life.

The Way of Nonviolence Under Occupation

It is a strange, but not inexplicable, coincidence that the policies adapted to the demilitarized status of society are substantially the same as those recommended by the Green pole in European politics. Also, but to a lesser degree, the deep ecology movement in Europe and the United States proposes policies connected with these peace efforts. The way of cultural evolution envisaged in this essay is essentially of the kind advocated by the Greens and deep ecology supporters. (Their philosophies and methods are set forth elsewhere in many publications.)⁶ Although only a minority of Europeans have confidence in the replacement of military methods with nonviolent methods, the minority is not insignificant and it is increasing. According to a recent public opinion poll in France, “17% declared they would be ready to *rely* on a system of defense based on nonviolent resistance; only 18% had any confidence in the French strike force as a means of defense.”⁷

I want to concentrate on a subject that is rarely discussed: preparation, especially in small industrial nations, for *occupation* in the context of a larger conflict involving threats of nuclear war. My main reason is the earlier point I made that it should not be taken as axiomatic that demilitarization would not lead to occupation by a militarized power. Here I speak in terms not only of nuclear disarmament, but of complete military disarmament or demilitarization. Beyond an absolute *no* to nuclear weapons, we must seek to avoid the use of any form of large-scale, organized violence.

Two developments must proceed together: demilitarization and education in militant nonviolence. The term *militant* is used because the form of nonviolence contemplated requires many soldierly qualities: self-discipline, loyalty, organizational solidarity, physical (but even more, civil and mental) courage, and training. The word *respectful* might be added to *militant* because of the essentially respectful attitude fostered in relation to any human being. Person and action are distinguished: a person as such has the right to be respected. Yet this distinction can be drawn only if one adopts the way of nonviolence. The distinction cannot be effectively made by those who equate violence with effective resistance. As preparation for nonviolence proceeds, a gradual demilitarization can be undertaken.

According to some, demilitarization virtually invites the USSR or the United States to use its coercive power. They consider occupation of small

nations like Norway a certainty. In deference to this perhaps mistaken but widespread opinion, realistic training in behavior under occupation should be instituted. It involves:

1. Training in communication with one another without access to the mass media and the many technical facilities we now use.
2. Training in communication with the occupation forces—that is, learning the English and Russian languages and acquainting ourselves with the kind of “official” justification the occupier is likely to use and how he conceives his own history and culture. (Lack of such knowledge in 1940 in Norway made it necessary for the home front to warn against discussion with the Germans: the latter were likely to win too many points!)
3. Acquaintance with the rules of survival in prisons and concentration camps (survivors are eager to teach us, if invited to do so); acquaintance with the processes of deportation.
4. Acquaintance with the rules of noncooperation and coexistence with the occupier. Occupied people should welcome personal communication at every level, but refuse absolutely to assist in any kind of military work or work that in other ways is auxiliary to the occupation. They should refuse to accept what is patently untrue or to conform to rules inconsistent with their sense of honor.
5. Training in how to continue teaching children in the absence of schools. If the occupier takes over *all* major organizations, schools will probably have to be shunned. In general, information is needed on how all essential institutions of a community can function and be maintained on the microlevel when they are destroyed on the macrolevel. History shows that even one hundred years of occupation need not obliterate a culture nor, seemingly, destroy its quality of life.
6. Training in local self-reliance. Under occupation it may be necessary to dismember all major organizations, including the economy.

As already mentioned, I strongly object to the tendency to treat the basic defensiveness of Soviet policy as axiomatic. As an axiom it justifies the neglect of an unpopular and frightening theme: what if the Soviet Union proceeded to occupy the smaller disarmed European industrial countries?

There should be a frank and widespread discussion of how the advocates of nonviolence propose to act under occupation, and how people could retain the essentials of their life. Reflection about what constitutes those essentials is, at the very least, required today.

Although I have accepted the assumption that the Soviets would move to occupy countries in the West that demilitarized, and thus that we must pursue training in militant nonviolence, I must repeat my earlier point that such a move would almost certainly be unsuccessful in a major industrial power such as the United States.⁸ Even in Eastern Europe, occupation *by Russians* would have been practically impossible. Large local communist parties believed that the Soviet system was inevitable, and a substantial number of people were willing to police the rest in a crude and brutal way. There is an atmosphere of civil war rather than of occupation in those countries. The Russians are unable and probably also unwilling to occupy them. In places in the West where Soviet occupation is unlikely to be possible, my argument for unilateral disarmament is even stronger. Nevertheless, discussion of the possibility of occupation is valuable, for it points to features of our culture that need to be changed if disarmament is to be possible.

Many people's first reaction to the requirement of increased preparedness for occupation is a grave doubt that the populace as a whole would be willing to participate. If less than the total populace cooperated, various minorities might worsen the situation: a fanatic or heroic minority opposing the occupier with violence, a minority of quislings, or a substantial minority of passivists sabotaging the essential, microorganization work. This is why training in militant nonviolence is needed to prepare the way for disarmament.

Any occupation force that tried to run a country would ultimately rely heavily on the cooperation of the occupied. Their benevolent but consistent noncooperation would place a great burden on the occupier. If Norwegians in 1940 had said to the Germans, "I think your pay is excellent but, alas, I shall refuse to work for you" (that is, to build airfields, submarine bases, and so on), it would have taken longer to occupy Norway, and many more Germans would have had to work there throughout the war.

If the ten top people in each major organization have ten immediate subordinates, and these again have ten each, it would require a million people to take over the six upper levels of the structure. In Eastern Europe a

sufficient number of collaborators means that the occupier does not have to control all the way down to the levels of the neighborhoods and local community.⁹ I am convinced that two million more or less ideologically uninterested occupiers could not subdue a country of ten million decentrally organized resisters.

There is another factor to consider: It is an understandable policy of the Soviet Union at all costs to avoid contact between its own people and those of any country with a higher standard of living. This makes it imperative to limit the number of Soviet citizens in foreign industrial countries to highly trained, constantly supervised officials, and to soldiers safely contained in barracks. To mingle freely and take over jobs in the economic life of an occupied country is out of the question.

In the past, people being occupied have usually prepared some kind of violent resistance in advance. The occupier expects this response, and it elicits a violent reaction. Moreover, the occupied people usually try to restore their large central institutions, and this inevitably provokes a massive response by the occupation power. (The fate of Solidarity could be instructive.) Institutions must be maintained on the microlevel until the occupier is convinced that nothing is to be gained from the costly occupation. Why is it so costly? Resistance of the conventional type during occupation is not focused on economies: the occupiers print vast sums of paper money with which they pay the populace to work for them. Nonviolent resistance is less heroic but costs the occupier much in the long run. The occupied do not accept the new money, and the occupier must pay the bureaucracy needed to occupy.

Of course, there are many objections to the policy of nonviolence. Advocates of the use of military power ask, What would a nonviolent resister do in a particular contemporary warlike situation, for example, one hundred meters in front of advancing tanks? On the other hand, defenders of militant, benevolent nonviolence tend to argue more abstractly and from history—for example, How could Hitler have been stopped through non-military means? The defender of military power asks rhetorically how armies can be stopped nonviolently: “by lying down in front of them?” The defender of nonviolence invites us to consider a train of events since, let us say, 1918, or even earlier. A minority sought to help the German democratic politicians by providing food for the hungry (not shutting off the flow, as happened in the winter of 1919). Also, a minority attacked the financial

abandonment of Germany by the West during the great economic crisis of the early 1930s. The defender of militant, benevolent nonviolence resorts to history, saying, If a minority favoring a certain nonviolent policy had been stronger, then the question of a military solution would not have arisen. Both ways of arguing have weak and strong points.

A similar polarity of argumentation makes itself felt concerning the consequences of actions: the first group stresses immediate consequences; the second, long-range consequences. This essay stresses the long-range consequences of a continuing arms race and the continuing adaptation of the whole culture to participation in nuclear war. The two groups have a slogan in common: freedom. However, the term has many shades of meaning, and here they differ.

It is common in industrial democracies to identify a gain in level of freedom with a gain in individual influence over social arrangements, rather than a gain in self-realization, that is, an increase in the power of the whole personality to realize basic, intrinsic values.¹⁰ Again, there is confusion of "power to" with "power over." The tension between Nehru and the Indian nationalists on the one side, and Gandhi on the other, is an example of this and of great significance for world history. For the first group, the key slogan *swaraj* (self-rule) meant political independence. For Gandhi, political independence was never treated as an ultimate, intrinsic value. For him, *swaraj* included the eradication of mutual threats between religious groups. *Swaraj* required a level of maturity that could make political independence work to the best for the nation as a whole. In the West we must keep in mind that the self alluded to in Gandhian *swaraj* is not the abstract ego, but the eminently, socially engaged, mature self.

Participation in plans for nuclear retaliation to maintain political freedom neglects the concept of freedom as understood by Gandhi as well as by central Western philosophers. To invoke love of freedom as the motive for the nuclear arms race is to debase the very ideals of freedom.

The discussion of freedom and resistance under occupation invokes the question of the essentials of a way of life. In spite of differences in ways of life today among those who feel they lead a good or satisfactory life, *kinds* of requirements are held in common.¹¹ Easiest to define are the biological and physiological requirements, such as food. Psychological requirements are more difficult to define, and their presence much more difficult to test, but

they would include felt security, being loved and loving, being respected, self-fulfillment, engagement, meaningfulness, and so on.

In discussions of the hardships under dictatorships, “felt security” is foremost among the psychological factors. Declared opponents and their families may never be sure that some terrorists hired by those in power will not suddenly arrive and drag them from their homes. (An example of felt security is the British definition of nondictatorship: you know it is only the milkman making a noise at the door at 6 A.M.) Felt security today, however, is perhaps no greater than under occupation.

The evils of occupation, as experienced during the Nazi occupation of 1940–1945 in Scandinavia, were those of restricted public communication: everything printed was censored. A large amount of opinion and information could only be communicated to large groups “illegally.” People caught in the production and distribution of such material were imprisoned and sometimes tortured. Schooling, a kind of communication to large groups, was interfered with: there was pressure to change the content of the communication. Again, resisters were prosecuted. Clearly, though, those evils, which resulted in the laborious organization and development of networks of small-group communication, could not compare with what is likely to happen after a nuclear war. The population’s mental health and degree of satisfaction with life were not very much lower, I have reason to think, during the occupation of Norway than they are now. The fundamental evils of prolonged occupation by a state like the Soviet Union are likely to be social, cultural, and mental, rather than physical.

Again, though, the effects of nuclear war, and the kind of society likely to develop after such a war, represent losses of an entirely different order and evils of a completely different ethical kind. Whereas nonviolent resistance under occupation tends to heighten the morale of the populace, strengthen its will, draw people of different classes together, and deepen their consciousness of their own culture, the vision of territories after nuclear war is one of extreme demoralization.

Conclusion

In a poor Indian village it is more rational for each farmer, as an individual, to have five sons rather than one, but for the village as a whole, this is

deadly. For each nation, taken separately, security, as conventionally defined, rests on competition and the arms race, but for humanity and the planet this is absurd, since their security in the case of an arms race inevitably decreases.

Unilateral demilitarization takes the opposite course and starts with the planetary view. Security, as conventionally defined, is zero or very low, to the extent that occupation is a possibility. When defined in terms of power to defend the essentials of a way of life, however, security is not zero or low. How high it is depends in part upon the material requirements of the essentials, the degree of unattractiveness of occupation, and the tendency among other nations to take the planetary rather than the isolationist view.

The likely effect of a full nuclear war is such that one has to say absolutely *no*. This implies saying no also to participation in the current preparations for nuclear war, that is, to the policy of nuclear deterrence. It implies a no to conventional armaments, which, within a short time, can be developed into nuclear armaments. It implies a policy of gradual unilateral disarmament.

Countries that unilaterally demilitarize have to take seriously the possibility of occupation. Defense means, in this case, defense of the basics of a way of life. The only promising way to assure this is the militant nonviolent way. Implied in that way are deep cultural changes, which cannot occur as long as there is preparation for participation in nuclear war. Therefore, the first step is the rejection of participation, whatever the circumstances.

The work for this long-range goal does not preclude wholehearted participation in current peace movements with more limited goals.

Suggested Additional Readings

Berlin, Isaiah. 1969. *Four Essays on Liberty*. London: Oxford University Press.

Galtung, Johan. 1976. "On the strategy of nonmilitary defense." In *Peace, War and Defense*. Copenhagen: Ejlers, pp. 378–426.

UN General Assembly, 35th session. *General and Complete Disarmament. Comprehensive Study on Nuclear Weapons*. September 12, 1980.

Leebaret, Derek, ed. 1981. *Soviet Military Thinking*. London: Allen & Unwin.

THE PHILOSOPHY OF PEACE AND GANDHIAN ETHICS

- Naess, Arne. 1962. "Non-military defense." In *Preventing World War III*, edited by Quincy Wright. New York: Simon & Schuster.
- . 1967. "Non-military defense and foreign policy." In *Civilian Defense: An Introduction*, edited by T. K. Mahadevan et al. New Delhi: Gandhi Peace Foundation.
- Roberts, Adam, ed. 1967. *The Strategy of Civilian Defense*. London: Faber & Faber.

Nonmilitary Defense

The traditional means of defending life and freedom include a major emphasis on the military. Because of technical developments, the use of these traditional means could result, in ten or fifty years, in there being few human beings left to enjoy freedom or to struggle against tyranny. Nonmilitary methods of struggle also exist, however. It is the aim of this article to explore to what extent these nonmilitary methods might be developed to serve more adequately the need for means of defending life and freedom, and along what general lines such a change might operate. I do not claim to offer a panacea, a detailed blueprint, a final answer to every aspect of the problem, and certainly I do not offer an easy way without risks. There is no realistic response to the current crisis that does not involve risks. Here I am merely seeking to establish a reasonable case for why we should seriously consider an alternative method of defense that has, relatively speaking, been ignored. Having in mind the defense of the way of life of people with whom I identify—primarily Norwegians, but also many others in many countries—I shall attempt to broaden the traditional concept of defense and defense institutions. It is my belief that thinking in terms of the broader concept will strengthen the possibilities of peace and freedom.

The Inadequacy of Military Defense

The need for defense is greater today than ever before. The decline in the importance of military defense does not reduce the importance of defense in general.

This article was reprinted with permission from *Preventing World War III, Some Proposals*, edited by Quincy Wright, William M. Evan, and Morton Deutsch (New York: Simon and Schuster, 1962), 123–35.

To defend Norway today means to defend our independence, our freedom to shape our lives within the framework of Norwegian social traditions and culture, and to change them as we wish. It is to defend a way of life against all external forces that would alter it without our consent. From experience we know that events in another country can endanger our freedom. Throughout the world there exist dictatorships or power concentrations under various labels that for ideological, economic, military, and other reasons may threaten the freedom of other countries. The Soviet Union is one of them, and I share the view of those who are convinced that a continued advance in power and influence of the Eastern bloc sooner or later may reach the point at which Norway could be taken within that bloc's sphere of influence and possibly be occupied. This would clearly threaten our ability to form our own institutions, and might even involve the deportation of our people to the expanses of northern Asia.

In the event of nonnuclear war, Norway might hold out for hours or even weeks, but in any war between the major blocs we must expect occupation under a more or less benevolent or malevolent military dictatorship. If the war should end with the (so-called) victory of those states introducing a way of life we despise and a totalitarian state machinery, conditions resembling those of the occupation during World War II would again exist. Even in the event of the establishment of a world state, it will be necessary for the peoples of the world to develop means by which to check the possible abuses of power and dictatorial tendencies that could arise from such an extreme concentration of power.

What means of defense happen to be the most effective is relative to what is to be defended. In defending a way of life, we must avoid those means that would undermine or destroy the way of life to be defended and the very people who cherish it.

For hundreds of years the world was such that the defense of Norway could be identified with the defense of Norway's geographic borders. Defense of a territory against physical invasion was often defense of a way of life, a cultural pattern, or an ideology. In this context, military forces strong enough to keep the invader out were conceivable and possibly were effective. Today, however, we recognize that the relative independence we enjoy is the result of many forces and conditions outside Norway. It is these

forces and conditions that we must seek to influence in order to preserve our independence. Military preparations are inadequate to the task.

Against a powerfully armed totalitarian state, military defense of Norway's geographical boundaries by its 3.5 million people¹ alone might be heroic, but it would inevitably be futile and quixotic. Allied with NATO, we increase our military resources, but those resources are not in the long run more effective. As well as increasing the likelihood of occupation during a major war, alliance with nuclear powers makes more acute the danger of annihilation by nuclear weapons. Even though not a single enemy soldier crossed our borders, our existence could be terminated. It is also possible that strong alliances would force Norway to fight nuclear wars for aims that most of its inhabitants do not consider basic or of supreme value.

Hence, the very notion of defense needs clarification. Simply *to call* something a defense measure does not make it capable of defending anything whatsoever. Let us therefore read "military defense" as meaning "military preparation for the eventuality of war." Military preparation is the most thoroughly institutionalized means of defense, but there is no good reason for narrowing down the concept of defense by identifying military defense with defense in general.

Nonmilitary Defense

As wars have become increasingly more destructive, there has grown up a conviction that the use of modern weapons is justified only, if at all, in the service of fundamental values. At present, however, foreign policies are generally shaped, not to protect and extend fundamental values, but to uphold or change existing power relations in favor of this or that nation. Military means may still to some degree be effective for such customary aims. A foreign policy shaped mainly to protect and extend fundamental values could scarcely make use of modern weapons and thus risk a nuclear war, because a war would violate some of those values that are to be defended.

Immediate dissolution of military defense organizations is not likely to realize the aims of those who believe in substituting more or less completely nonmilitary methods for military defense. If at present the military organizations were to be greatly reduced unilaterally or even universally, it is probable that many people would feel more insecure, threat-

ened, and helpless than ever; the passive state of despair and fatalism would actually be reinforced. If one takes away the only means of defense a person *believes* to be truly effective, he certainly has every reason to feel frustrated. Thus, a reduced reliance on the military must be preceded by *the development of increased confidence in and the gradual adoption of alternative means of defense*.

Let it be quite clear that I do not advocate what is usually called pacifism as an alternative to present policies. As an organized movement centering on individual conscientious objection to participation in war, pacifism must from the political scientist's standpoint be regarded mainly as nonpolitical. It is also clear that although pacifists are not always without political influence, they have no common platform. What I am interested in exploring is a primarily nonmilitary defense policy determined by the political and military realities of our day. In light of the current political situation, such a policy cannot call for immediate disarmament.

Commitment to Freedom

Since a nonmilitary defense policy depends on the active participation of the populace in times of emergency, it is vital that the citizens understand what it is that they are trying to defend. The first stage in developing a nonmilitary defense policy is therefore the clarification of the principles that we value and the qualities of the way of life we wish to pursue, so as to increase our commitment to these principles.

Various steps might be taken that would further this understanding and commitment. The most apparent need is for a national self-examination by all parts of the population concerning what it is in our way of life that we cherish and wish to extend and preserve. Discussion groups, panels, debates, articles, books, essays, and radio and television, on both local and national levels, must be enlisted to facilitate this self-examination. Every scholar interested in the question should be provided with the opportunity of obtaining funds for study and publication. Schools, universities, churches, and other educational institutions could serve as local centers for this national program.

This program might be called ideological, but the term must not be confused with ideologies as detailed systems seeking to force compliance

and converts. What is needed is work on the ideas, ideals, and moral convictions associated with freedom, not with force. It is, of course, possible and desirable that an effective program of this kind might influence other countries and contribute to the liberalization of potentially aggressive dictatorial regimes. This would be one demonstration of the direct relation of this program to the problem of defense. On the home front, it would strengthen the motivation for defense and assist in the mobilization of defense energy in times of crisis.

International Service

The second general policy that would in the long run contribute to a fulfillment of our society's ideals and the meeting of human needs as well as to defense is *international service*—service to friendly countries, “neutrals,” and potential enemies alike.

Thanks to Henrik Wergeland, Fridtjof Nansen, and others, there is in Norway a tradition stressing global solidarity and responsibility. If the opposition to the programs advocated by Nansen had not found such strong backing in various powerful countries, there might have developed forms of cooperation on the international level that would have reduced the likelihood of wars. Since 1945, Norway has organized help to countries in which physical disasters have occurred (floods in Italy and Holland, an earthquake in Morocco, etc.). Fisheries in India have been supported in various ways with combined government aid and voluntary contribution, and a variety of other activities have been carried out, all of which might be said to exemplify international service. Other countries have made similar efforts, sometimes more comprehensive and better organized.

It is now time to show the close connection between such measures and defense, and to try to make such international service more effective on a larger scale. Such enterprises need to be integrated into the country's normal economic system, for example, by lowering import duties on products from areas that we assist and encouraging an expansion of trade with them. In addition, it is important that there be some kind of reciprocal aid, such as cultural programs, with the countries receiving assistance. It is cooperation and *mutual* aid that will reduce tension in the long run, and not simply humanitarian help.

International service should be undertaken for its own sake, to relieve suffering and meet human needs.² It is also important as a means of expressing and implementing our nation's way of life and principles, particularly the concern for human dignity and justice and freedom upon which we like to think our society is based. To undertake international service purely from the "ulterior" motive that it will assist our own defense effort will reduce or destroy many of its intrinsic values and its contributions to that effort. However, it is important to recognize the relation between such efforts and the defense problem.

First, in relieving suffering and poverty, international service will contribute to the removal of important causes of conflicts and wars. The relationship of poverty, gross inequality, and suffering to violent conflicts, hatred, and war is too widely recognized to require detailed elaboration.

Second, such programs increase "man-to-man" contacts and contribute to the development of personal loyalties between individuals of various countries. These "crisscross" loyalties can contribute to international solidarity and make it more difficult to obtain popular support for international conflicts with countries with which such contacts have been rich.

Third, international service can contribute to the creation of a more sympathetic attitude toward our country and way of life, which would reduce the chances of aggressive action against us. The potential attacker would have clear evidence of our nonaggressive intentions; and the fear of alienating "world opinion" would make him hesitate before invading. Moreover, in the event of a crisis our plight would receive more attention, publicity, sympathy, and concrete aid than might otherwise have been possible.

Fourth, carrying out an international service program will make our own country better prepared to meet crises. It will help to create a positive sense of purpose and mission comparable to that which often accompanies military efforts, but without certain of the disadvantages of such measures; and in giving our citizens experience in working cooperatively in a common altruistic cause, it will enhance their ability to practice this cooperation in other tasks in times of crisis.

Fifth, knowledge of international service conveyed to the troops and population of a potential enemy might reduce their motivation to act aggressively against us, cause them to carry out repressive orders inefficiently,

and increase the chances of their deserting and mutinying in support of freedom.

Areas of Service

A broad program of international service would include a multitude of tasks. Emergency help in cases of natural catastrophes and famines³ and aid to refugees⁴ would be vital. Technical help adapted to the needs and cultures of the countries desiring it is an obvious means of international service. Another is various types of educational aid, particularly assistance to students who wish to study in other parts of the world.

A service of a somewhat different type is to provide independent observers and investigators to assist in the study and resolution of specific international conflicts and perhaps of certain national political crises such as civil wars. This service would include operational research aimed at contributing to the solution of such conflicts and more general and fundamental research on conflict, war, and nonmilitary means of conducting and resolving conflicts—in short, on much of the nonmilitary defense program advocated here. The results of such research should be widely distributed. Other countries wishing to adopt a similar type of defense policy could be provided with special defense liaison officers, lecturers, and consultants to assist in the adoption of such a program.

Such a program of international service would, of course, require considerable resources, which I am convinced should be provided mainly through the government budget. There would also be a large demand for manpower, including both untrained workers and specialists. In addition to a highly trained long-term technical staff, persons serving for one or two years would play an important role. Volunteers alone could not fill the demand. Manpower should therefore be supplied by conscription from the country's youth of both sexes. This form of service ought to be a full or partial alternative to the usual military conscription or alternative service for conscientious objectors. Essential training would include language skills as well as knowledge and techniques required for particular jobs.

It would be by far preferable if such a service corps could be organized on an international basis and made available to the United Nations or some other international body. The experience of several countries' corps mem-

bers working together—the Americans and Russians cooperating in building a steel plant in India—would contribute to closer understanding and develop the ability to cooperate in service projects. This might make resolution of other issues between such countries less difficult.

A considerable part of such a service program could be carried out through existing organizations that already operate along the same general lines, such as the Red Cross, Save the Children, and War on Want. Other services could be conducted through national branches of international organizations; others, through contributions of men and resources to such international organizations as UNESCO, UNICEF, WHO, and FAO.

Improving Our Own Society

Another aim of a nonmilitary defense program would be to make our own society worthier of defense and more capable of being defended by nonmilitary means. It must be frankly admitted that there are many aspects of our own society and others that many people would not wish to defend, and would certainly not make great sacrifices to defend. The victims of racial segregation and discrimination, for example, and those subjected to economic and political oppression, will not be eager to defend their societies against foreign aggressors who may claim to be “liberators.” Neither will the more idealistic members of such societies, even though not victims of such policies, be eager to sacrifice heavily in the defense of such conditions.

At the time of Hitler’s annexation of Austria, for example, Schuschnigg had already established a one-party system, had built concentration camps on the German model, had abolished individual liberties, and had carried the principle of authoritarianism to its ultimate implication. There remained in Austria little basis for ideological resistance to Hitler. Similar although perhaps less severe conditions existed in certain other European countries, such as Poland and Yugoslavia; apart from the warnings of psychological warfare, there was in many cases no basis for universal and determined resistance to Hitler. Societal housecleaning is a prerequisite for effective nonmilitary defense.

Another necessary improvement is the decentralization of decision-making power. Citizens must be more accustomed to making decisions individually and in small groups and less dependent upon the government or

leaders of organizations. Admittedly, technical developments seem to have made inevitable a certain amount of centralization. However, if the opportunity for local initiative and responsibility is destroyed rather than actively cultivated and nurtured, then the ability of citizens to resist encroachments on their freedom will be disastrously affected. What is needed is a general strengthening of those institutions in our society that can train the individual to make decisions in times of crisis in the absence of the top governmental hierarchy and of all other major organizations. This would prevent demoralization if the state apparatus were seized by opponents of liberty and yes-men placed in key positions in all major organizations.

Nonmilitary Resistance

All of the above components of a nonmilitary defense policy will contribute to the nation's ability to cope with crises; and at the same time they will enrich and improve our own society. They will also reduce the chances of invasion and occupation. It is nevertheless necessary that we have an adequate program for dealing with the latter eventuality, for with modern weapons it will always be possible to invade and occupy territories for shorter or longer intervals. Unhappily, the customary identification of military defeat with total defeat prevents discussion at government levels of problems of occupation and suppression, such discussion being associated with defeatism or lack of "defense-mindedness." The opposite is actually nearer the truth; those who identify military defeat with total defeat neglect a sector of defense of vital importance.

Perhaps the most positive way in which a small country like Norway could contribute to the prevention of a nuclear war would be to say *No, thank you* to an offer from a friendly superstate to stop an invasion of her territory by using nuclear weapons. Such a policy is, however, irresponsible so long as the populace is no better trained to meet the problems of occupation than it was in 1940. As I have indicated previously, reliance on military methods of defense cannot be diminished until other means of defense are generally recognized as equally effective. It is therefore my proposal that, for the present, side by side with conventional military preparations there be instituted a program of preparation for nonmilitary resistance in case of invasion. As popular confidence in such measures gradually grew, it would

be possible and desirable to reduce the military preparations and to rely in greater degree on nonmilitary training.

In the event of invasion by an army possessing nuclear weapons, relatively little could be done by military means to prevent the invader's disbanding major organizations and eliminating known leaders of opposition. Our citizens must understand that this military failure does not mean defeat; it does mean that the struggle is entering a new phase of more direct confrontation of human forces. The struggle ought not to be waged on a front where the opponent already has overwhelming superiority. Rather, it must be waged by nonmilitary weapons and by techniques that can continue to function regardless of the invader's control of communications, ammunition, and supplies, and despite his power of mass deportations. Also, there is likely to be an inverse relationship between the degrees of military and nonmilitary preparedness for defense, for precisely those humanitarian values that give rise to spontaneous loyalty and affection for a way of life are likely to become undermined to the extent that military preparedness is maximized.

Techniques of Resistance

It must be kept in mind that our ultimate goal is to preserve our way of life. Hence, even under enemy occupation certain fundamental principles must be upheld, regardless of what the opponent does and regardless of the cost. *No human being is to be sacrificed by others to achieve an end; each person must be something of a goal in himself. No goal can justify destruction of respect for truth,⁵ and under no circumstances may any human being be mistreated or tortured.*

It is important to distinguish this kind of a program from psychological warfare, which may resort to all types of threats and deception in verbal propaganda. It must also be distinguished from a program of general noncooperation, a program focused on the invaders. The weakness of a policy of general nonviolent resistance is that it should not be upheld at all costs; if repression gradually stiffens, it is impossible to continue defending, for example, the major organizations of a democratic government. Automatic refusal to cooperate with the invaders in food distribution may result in a famine. Self-inflicted hardships for nonessential goals cannot easily be asked or expected of a populace except in critical periods of very short duration.

Techniques of resistance that would serve to defend the above principles could include many types of noncooperation: strikes, boycotts, civil disobedience, refusal to operate and participate in the existing governmental agencies and other major organizations once they had been taken over by the enemy, and refusal to provide him with labor, transportation, information, and so on.⁶ Wherever the invader sought to extend his power by forcing the inhabitants to violate the basic principles, he should be met with those forms of nonviolent resistance best adapted to each case. Let there be no pretense that the enemy would not retaliate and inflict repression. This, however, is no argument against nonmilitary resistance, for it is at least as true of military means. The question is *how* to do the job, not whether it should be carried out.

At the same time, a large variety of efforts could be undertaken to encourage the occupying soldiers not to carry out measures that must be resisted by the inhabitants. These efforts would, of course, include no acts of terrorism against the soldiers themselves. Rather, by means of posters, underground newspapers, secret radio broadcasts, acts of resistance and defiance, and personal contact where possible, the soldiers could be convinced of the pervasive and tenacious nature of the resistance offered. The history of recent occupations—for example, that of Norway—shows that it is possible for occupying soldiers and even high officials to be actively sympathetic with the occupied populace, to be lax or even negligent in carrying out orders, and to pass on important information to the underground. While maintaining the noncooperation and defiance, the resistance should be aimed at maximizing the amount and degree of this support from the occupying forces.

It is vital in such resistance movements for people to be willing and able to continue their customary ways of life in small units when the public life of a democracy is absent. During the occupation of Norway, for example, the teachers successfully prevented the schools' being used to spread false information in the interest of the invaders. Further, by mass nonviolent noncooperation they openly refused to participate in the teachers' organization that Quisling was creating as part of the foundation of his corporate state. When the schools were closed, they taught in homes. The price was months in concentration camps for hundreds, but both the organization and the corporate state were stillborn and the schools remained free of control.

During the German occupation of Poland, the pressure on school-teachers was in part so heavy that direct resistance at the schools and within the school organizations was impossible, but teaching was conducted “privately” in tiny groups, a form of *microresistance*.⁷ In Norway, repression and brutality did not reach such a high pitch that all large organizations, “legal” or “illegal,” were destroyed, but given another five years of occupation, under steadily worsening conditions, the resistance might have disintegrated into microresistance. This would also happen in the case of large-scale deportations. If the citizenry were thoroughly prepared, however, even microresistance could be a weapon far more powerful than any military means used against it.

Research

Military defense methods have been carefully studied for centuries. Non-military methods cannot be improvised. In fact, we do need study and clarification of nonmilitary methods, and training and preparation in the use of such methods in specific situations. Moreover, we need it now.

We have already obtained sufficient practical experience to indicate that, in the light of the obvious limitations of possible alternatives, such nonviolent resistance constitutes the best available means for combating an occupation. There has, on the other hand, been little academic study of these phenomena; our knowledge about them, as compared to techniques of war, for example, is extremely limited. Therefore, a first requirement is the initiation of a large-scale program of fundamental research on nonviolent resistance. In addition to this basic research, specific attention must be paid to the application of such methods against totalitarian opponents. This must include study of totalitarian systems and of the experiences of previously occupied countries under such regimes. Much of the research could be conducted through existing institutes for social research, defense academies, and universities, although it might also be desirable to establish a special institute or academy for coordination of such projects. This program of study cannot wait until a nonmilitary defense program is adopted; it could begin immediately. It will also be necessary to train and develop a core of specialists in such methods: theoreticians and strategists coming from the military, from a variety of academic disciplines such as sociology,

political science, and psychology, and from among those devoted to nonviolent philosophies.

Conclusion

These, then, are certain aspects of a nonmilitary defense program whose primary purpose is to preserve and extend liberty and to prevent invasion and expansion of suppressive systems. It is a program also capable of dealing with invasion and suppression.

We must recognize, of course, that such a program of nonmilitary resistance depends on popular acceptance of the probability that the invader will inflict severe repression, torture, and executions, and that the nation will neither be in a position to retaliate in kind nor be willing to do so. Only such a program, however, could keep alive and active both those principles that furnish the ultimate basis of freedom and the willingness to fight for freedom.

Implementation of a nonmilitary defense policy could be cumbersome, it is true. Such a defense policy involves a reorganization of the existing defense department and a broadening of the tasks of the department of foreign affairs. It is possible that the two might effectively be combined under one or the other auspices, or a new arrangement created. The cost of a nonmilitary program would be considerable, and at the start it might have to be an addition to the current military budget.

This is admittedly not a program that will be adopted in a day, but whereas initial adoption of the policy may be difficult, once the program is worked out in fuller detail and put into practice its adoption by many countries will be facilitated and accelerated. As more and more countries adopt such a program, the dangers of war will be further reduced as greater pressure is exerted for the abandonment of military aggression. In short, it may well be that the only direct means to achieve the fundamental social change required for the permanent prevention of war is the widespread and immediate implementation of the policies of nonmilitary defense.

An Application of Empirical Argumentation Analysis to Spinoza's *Ethics*

The Propositions of the *Ethics* Conceived of as Arguments in a Debate

Nobody today maintains that Spinoza is not an original philosopher. Nevertheless, Harry Austryn Wolfson (1958)—that extremely learned historian of ideas—set himself the task of finding out which sources Spinoza used, or may have used, in formulating each detail of his main work, the *Ethics*. With extraordinary success, Wolfson traced *influences* on Spinoza's formulations. One task of argumentation analysis is to transfer the historian's results, which are formulated in terms of influences, into a rich set of patterns of argumentation. This is a task of hypothetical reconstruction. It clarifies the cognitive content of a historical text by pointing out contrasts and by explicating agreements and disagreements. It rejects the existence of sovereign pronouncements made in a kind of communicational vacuum.

Although *influence* is primarily a causal term, it also has wider connotations, including the transfer of opinion through verbal deliberation and argumentation. Wolfson's conclusion is that Spinoza, perhaps more than any other great philosopher, picked up opinions from others, but that he never did so slavishly. He subtly changed *everything* in his own direction. Thus, when studied deeply, every single proposition in the *Ethics* is seen to have a

This article was reprinted with permission from *Argumentation: Approaches to Theory Formation*, edited by E. M. Barth and J. L. Martens (Amsterdam: John Benjamins, 1982), 245–55.

SPINOZA

distinctive Spinozist color or flavor. It is, in my opinion, as if to Descartes, to Hobbes, and to a host of other thinkers, Spinoza has said “Yes, but. . . .”

Furthermore, I take Spinoza to have had an intensive intuition concerning existence in general, a genuine *Weltanschauung* (stressing *Schauen*), which simplifies many things and which unifies his own views.

With these two assumptions in mind—the Wolfsonian assumption of “Yes, but. . . .” and my own assumption of a unifying and simplifying intuition—I shall now comment on the vast set of theses of equivalence in the *Ethics*.

Spinoza’s Theses of Equivalence

Spinoza connects about ninety basic terms in his *Ethics* by means of a great number of theses containing what I shall call *expressions of equivalence*:

A is one and the same thing as *B*
A, which is the same as *B*
A is nothing other than *B*
A cannot be anything other than *B*
A signifies the same as *B*
A and *B* signify the same
By *A* and *B* I understand the same
A is called *B*
A, that is, *B*
We say *A* when *B*

Some expressions I classify as expressions of equivalence even though they do not always suggest a close relation between *A* and *B*:

<i>A</i> or <i>B</i>	as in	<i>Deus sive Natura</i>
<i>A</i> or <i>B</i>	as in	<i>Causa seu ratio</i>

If all sentences containing straightforward equivalence expressions are marked by “*A* eq *B*,” it is clear that they make up a large class of important formulations in the *Ethics*. A list of about 250 equivalences (Naess 1974a) is still not a complete list. Each of the following eight central terms occurs either as *A* or as *B* in more than fifteen sentences of equivalence: *causa*, *Deus*, *essentia*, *idea*, *natura* (or *Natura*), *potentia*, *ratio*, *virtus*.

If it is tentatively accepted that such relations of equivalence are transitive, then a vast network of equivalences is created.

Sentences expressing equivalence occur in great numbers in Spinoza's proofs and thus are clearly indispensable in his argumentations. Of sixty-seven equivalences extracted from propositions 1 to 73 in part IV of the *Ethics*, fifty-seven are made use of in proofs.

In a list of equivalences in this set of ninety basic terms:

<i>aeternitas</i>	occurs in	5	equivalences
<i>affectus</i>	"	19	"
<i>amor</i>	"	10	"
<i>anima</i>	"	8	"
<i>beatitudo</i>	"	8	"
<i>bonum</i>	"	7	"
<i>causa</i>	"	22	"
<i>cognitio</i>	"	19	"
<i>conatus</i>	"	16	"

It should be noticed, however, that some of Spinoza's equivalences do not really help us much to understand what he means. The frequently found expression *causa seu ratio*, traditionally translated as "cause or reason," is an example. It functions today mainly to remind us of the differences in meaning of *causa* and *ratio* in Spinoza's time of vis-à-vis the usages of *cause* and *reason* today.

The strings of equivalences $A \text{ eq } B, B \text{ eq } C, C \text{ eq } D \dots$ are of particular interest from the point of view of simplification and univocality. I shall give an example involving the words *virtus*, *potentia*, *conatus*, *essentia*. The numbers in column 1 refer to the list that appears previously in this article.

Equivalence No.	Found In
53	Part 3, Prop 7, Demonstratio
59	3, P9, Scholium
71	3, P55, Sch
72	3, P55, Cor 2, Dem
91	4, Def 8
120	4, P33, Dem
122	4, P52, Dem
150	4, App 3
174	5, P4, Sch
240	5, P41, Dem
241	5, P42, Dem

From this tabulation it is seen that *virtus* occurs in five different equivalences. These five equivalent expressions are connected with yet others. If the equivalences (except a small number of them) are taken seriously as statements of extensional equivalences obeying the law of transitivity, there is *a possibility of vast simplification of the articulation of Spinoza's system*. If “ $A \text{ eq } B \text{ eq } C$ ” is taken to imply substitutability, new versions of the *Ethics* may be constructed: one in which *A* has been inserted where we now find *B* or *C*, another in which *B* is written where now *A* and *C* occur, and so on. Depending on the way in which the terminological reduction is carried out, one obtains different versions, or reconstructions, of the system.

For example, the terms *power* and *virtue* are connected with several strong expressions of equivalence. There is also an equivalence between *virtue* and *love of God*. In the proof of theorem 42 in part V, it is said that love of God (*amor erga Deum*) is virtue itself (*ipsa virtus est*). Now, if in the *Ethics* we put the term *virtue* wherever we find *power*, we get a text that sounds very Christian and very tender-minded (in the sense of William James). If, on the other hand, we substitute *power* for *virtue* everywhere, we get a text sounding like Machiavelli or Thomas Hobbes, and very tough-minded (in the sense of William James).

The so-called rationalism of Spinoza can be constructed by taking *ratio* as a kind of primitive term and using some of the above equivalences to define other terms in terms of *ratio*. On the other hand, one may start with *amor erga Deum* and use the above equivalences to construct a kind of religious mysticism.

For several reasons, neither of these new texts brings us nearer to the system as intended by Spinoza. One reason is that *few equivalences are intended to be as strong as is required for substitutability*. Another reason is of a still more fundamental character: it may have been Spinoza's intention to suggest that behind, or beyond, a pair of terms said by him to be equivalent there is a single reality that can, and must, be approached through the differing connotations of each of the two terms.

Through the two attributes of extension and thought, human cognition grasps the one substance. Both avenues are essential for human cognition of what “is in itself.” Each of them contributes to this. A limitation on one of them would make human cognition a poorer instrument, even though each attribute is supposed to be a complete expression of substance or God.

In an analogous manner, one may explain the intended functions of many of the theses of equivalence in the *Ethics*. Thus the power terminology refers to a reality that is also referred to by the virtue terminology and the self-causation terminology; yet to restrict the exposition of the system by eliminating the last two terminologies would restrict unnecessarily our apprehension of that reality—so he may have thought.

Whatever the merits of a partial explanation in this vein of Spinoza's use of equivalences, it does not lessen the relevance and importance of an approach by argumentation analysis.

Equivalences as Arguments

The text of the *Ethics* can be seen as a set of answers to questions raised by Spinoza's contemporaries, forcing him to adopt the terminology of his time. The function of Spinoza's equivalences in argumentation may be illustrated by short dialogues between opponents (Op) and Spinoza (Sp):

Op: Mr. Spinoza! According to my religion, a human being may attain a state of glory (*gloria*). You have nothing to say about glory, however, nor does your philosophy permit you to attain glory. What do you have to say to that?

Sp: The glory you talk about *is the same as* genuine self-satisfaction or peace of mind (*acquiescentia in se ipso, animi acquiescentia*). (VP36Sch)

The questioner is thereby referred back to one of the themes about which, in the *Ethics*, Spinoza says a great deal.

Op: I understand what you say about men's love for God, but what about God's love for human beings? In my religion we draw comfort from meditating on a God who loves us. Your philosophy does not permit you to indulge in a loving God, and that illustrates the difference between a warm religion and a cold philosophy.

Sp: "God's love for men and the understanding love of the mind for God are one and the same." (VP36Cor)

SPINOZA

In this last quotation, I have translated *intellectualis* as “understanding” because the term *intellectual* is heavily charged with modern, narrow conceptions of the intellect.

Spinoza’s answer is, of course, not very enlightening for a religious person, but it certainly brings a complex of theological problems—viz., those concerning God’s love of humanity—within the circle of Spinoza’s explicit and carefully worked out philosophy of the third kind of knowing, the intuitive.

Op: Descartes distinguishes clear and distinct ideas from the confused. You seem to presuppose certain criteria of clarity and distinctiveness, for you use these expressions profusely in your *Ethics* without explaining them. Thus your *Ethics* is fragmentary.

Sp: Genuinely clear and distinct ideas are those and only those “that refer to the third kind of knowledge.” (VP28Dem)

Again, Spinoza brings an important range of problems within the circle of those problems that he treats in some detail.

Op: You speak favorably about seeking what is useful to us, and you explain in detail what it implies. What is needed, however, is a similarly deep-founded teaching on how to live virtuously. You lack that: you cannot satisfy those who are striving to attain virtue.

Sp: “The foremost and only principle of virtue or of the right way of living is the search for that which is useful for us.” (VP41Dem)

In this example, it is presupposed that Spinoza has already formulated many propositions on seeking what is useful but that he has not yet formulated any propositions on virtue. Through his answer, he now furnishes his opponents with a theory of virtue. The fight for virtue is a fight for what is “really” useful. As we can see from parts IV and V of the *Ethics*, what is “really” useful in his terminology is such behavior as we today would on the whole classify as virtuous (in the sense of being at a high ethical level).

Now consider the possibility that Spinoza has already formulated, more or less completely, his theorems on virtue, but not those on seeking what is useful. The opponent may then object:

Op: You have lofty theorems on virtue, but as a sympathizer with Thomas Hobbes and a believer in the fundamental principle of self-preservation, I miss a more realistic ethics as part of your philosophy.

Sp: The principle of seeking what is useful for us *is* the principle of virtue and the right way of living. There is no other principle.

Again, Spinoza delivers the goods. He is able to do so because his basic intuitions allow for a vast simplification of metaphysics. He cannot, however, express it through a small number of terms; he *must include all the basic terms of all his opponents and rivals*. Or, not talking in the terms of argumentation analysis, he must include all the important terms of the different traditions and paradigms he is reacting to—in part favorably, saying yes, and in part less favorably, saying “Yes, but . . .” (and rarely, or never, saying no).

He implicitly says “Come to me! Whatever good and true there is in your own worldview, you will find also in my philosophy. Whatever is bad or misleading in your own view, you will get rid of with my help.”

The *Ethics* is a small book about big issues. It ranges over ontology, epistemology, basic physics (between IIP₁₃ and IIP₁₄), basic parts of psychology, some general sociology and pedagogics and, of course, a lot of ethics. Furthermore, it contains theology in the sense of doctrines about God, as well as some sociology of religion and morals.

How was it possible for Spinoza to furnish deep answers to the formidable variety of questions that were *asked* in his own time about all those themes? The question is pertinent because his aim was to convince the people of his own time and his own environment to *change* to some extent their opinions on practically all fundamental problems.

Tentative answer: by means of his theses of equivalence.

One aim of this paper has been to exemplify a combined interest in speculative philosophy and an empirical, “positivistic” analysis of argumentation. The understanding of a great philosophy such as that of Spinoza poses a variety of semantical and argumentational problems. In the above, it has been possible to illustrate only a very special application. It should, however, need little reflection to imagine the possibilities of fruitful applications of, among other things, the various tools mentioned in my article, “A Necessary Component of Logic: Empirical Argumentation and Analysis” (in SWAN VIII).

Einstein, Spinoza, and God

“Einstein and Spinoza” is a tempting theme for a Spinoza scholar and Einstein admirer, as well as for a Spinoza admirer and relativity specialist. In what follows I shall pick out a small part of the many subthemes that today deserve renewed consideration: God, nature, determinism, and timelessness.

When Einstein was invited to contribute to the *Spinoza-Festschrift*, 1632–1932 he declined: “Unhappily love for Spinoza is not enough to justify the writing of a dissertation about him.” Unlike Sigmund Freud, who declined for a similar reason, he added some substantial words about Spinoza’s philosophy. Spinoza was the first, according to Einstein, who “with real consistency applied determinism to human thinking, feeling and action.” He adds that this requires not only consistency in thinking, but also “an unusual purity (*Lauterkeit*), greatness of mind (*Seelengrösse*), and—modesty.” These requirements prevent determinism from being universally accepted among those “who fight for clearness and consistency” (*Spinoza-Festschrift*, 1632–1932, ed. Siegfried Hessing [1962]).

These words attest to the deepness of feeling with which Einstein defended his deterministic outlook. There are, however, many open questions as to exactly what this outlook implies. The word *determinism* has never had a single, fairly definite meaning, and there is little reason to believe that it ever will. In what follows, its relation to concepts of God and essence will be mentioned.

“I have often felt and occasionally also stated that Einstein stands in

This article was reprinted with permission from *Old and New Questions in Physics, Cosmology, Philosophy, and Theoretical Biology: Essays in Honor of Wolfgang Yourgrau*, edited by A. van der Merwe (New York: Plenum Press, 1983), 683–87.

particularly intimate relation to the God of Spinoza.” These words by his old friend and collaborator Arnold Sommerfeld deserve to be taken seriously. “Many a time,” says Sommerfeld, “when a new theory appeared to him arbitrary or forced, he remarked: ‘God doesn’t do anything like that’” (quoted in Schilpp 1949: 103). Taken in isolation, the remark might be used to support the belief that Einstein’s God was a transcendent God, but what he has said and written makes it clear that his God was immanent in nature. This is a cardinal idea for Spinoza. Human beings are genuine parts of nature; therefore, they partake in God’s determining power—however modestly and fragmentarily.

The expression *Deus sive Natura*, “God or Nature,” Nature with a capital N, occurs four times in the writings of Spinoza. It is clear that one must have in mind the distinction between *natura naturans* and *natura naturata* when interpreting this famous expression. It points to Spinoza’s conceptual distinction between an active and a passive aspect of a supreme totality for which he does not have a particular term. God is the name for the active aspect, not the totality.

It seems that Einstein’s feelings concerning harmony and lawfulness *in* nature make a similar distinction relevant. The God of Einstein is not identical with nature or the universe. God is immanent. The immanence is a different kind of relation, a relation difficult to articulate conceptually. Einstein uses the verb *reveal* in the famous cable he felt he had to send as a reply to a cable “Do you believe in God?”: “I believe in Spinoza’s God, who reveals himself in the harmony of all being, not in a God who concerns himself with the fate and actions of men.”¹ God is revealed *in* something, namely, all being, with which he is *not* conceptually identical. On the other hand, God is not *apart* from all being.

Spinoza does not use the term *revealed in*, but prefers *expressed through*. God is expressed through the modes, the particular beings. God is not something apart from these expressions. (This may sound heretical to some Spinoza scholars, but to me it seems to be essential to his system if it is to be understood today.)

The characterization of Spinoza as a “pantheist” is often interpreted in the direction that he identifies God with the universe or the world. Therefore, a better term for his view is *panentheist* (“God in all”). The difference is essential in discussions of the “problem of evil.” That is a still more formi-

dable problem for pantheists than for panentheists. As a panentheist Einstein may have less difficulty in defending his theory of harmony and his maxim that God is sophisticated but not malicious. (Incidentally, interpreting the maxims of Einstein, one should take into account his particular sense of humor. Uttered by a Spinoza, they would carry a heavier philosophical burden.)

Both Spinoza and Einstein leave questions open when talking about harmony, order, and simplicity. Clearly they do not refer to the actual state of affairs, for example, the state of international politics. Einstein says in a letter to C. Lanczos “that the problem of gravitation made him a ‘believing rationalist’: the physically true is logically simple, that is, it has unity at the foundation” (quoted in Holton 1970: 186). This feeling or intuition leads us again to the question of “God or Nature,” *Deus sive Natura*.

That God for Spinoza is not another name for *natura* is seen most convincingly if we put the term *natura* wherever Spinoza uses the term *Deus*. Some places this results in nonsense or at least in statements that Spinoza would not admit as valid. Even when inserting *Natura* with a capital N, there are difficulties. Perhaps Spinoza’s own development from being a young Jewish theologian to a consistent philosopher was never quite completed. Einstein did not undergo a similar dramatic development and might have more easily identified God with Nature.

Does Spinoza’s God not “concern himself with the fate and actions of men”? Human beings share in the double aspect of *natura naturans* and *natura naturata*; they are expressions of God or Nature, and as such are free (*homo liber*) and to an extent determine their fate and actions themselves. There is no God somehow *outside* human beings that might concern himself with men. The power used by a human being who acts, not compelled from the outside, but in harmony with his or her essence, is part of the power of God (*Ethics*, part IV, proof of theorem 4).

The question of power leads us to a second great and controversial area of Einstein’s thought: that of determinism.

As for Spinoza, determinism for Einstein was primarily a belief in order and harmony, as opposed to chance and chaotic antagonisms, not as opposed to causelessness.

Spinoza’s determinism, in contrast to that of Einstein, has often been labeled “rigid,” “absolute,” “merciless.” There are quotations from Spinoza

that support such a view, but if we take part V and the last sections of part IV of his *Ethics* seriously, and not as expressions of inconsistency within his system, these labels must be rejected as misleading. As expressions of God and as partakers in God's power, men are themselves determining their actions. They are creators of something genuinely new. Each thing and therefore each human being "expresses in a certain definite way the Power of God [Nature] by which He [Nature] is and acts" (*Ethics*, part III, proof of theorem 6). Human beings are part of *natura naturata*, but also a genuine part of the creative *natura naturans*. Insofar as their actions are determined by their nature or essence, they are free. Freedom is self-determination. Freedom as determination from one's own nature and essence, rather than from something external, foreign, or even antagonistic to it, is the only freedom rationally conceivable. Lack of determination, that is, chance or arbitrariness, does *not* provide freedom. Our freedom is not secured by a dice-throwing God.

Harmony among people is for Spinoza a consequence of acting freely and not being compelled from something external such as dominating passions. Einstein's unceasing fight against cruelty and oppression seems to imply a belief in the *possibility* of harmony of the kind Spinoza contemplates. The fight was one against irrationality, but Einstein explicitly rejects narrow or pure rationalism in favor of religiosity. For Spinoza there was no problem here: love of God (*amor Dei intellectualis*) is the highest good "we can seek according to the dictate of reason (*ratio*)." Since the time of Spinoza the distance of the meaning of the term *reason* from that of *ratio* has increased. It is now mostly used for what Spinoza would call calculating reason (*ratiocinatio*). Spinoza would agree with Einstein that rationalism in today's sense is too narrow as a basis for fighting cruelty and injustice.

In Spinoza's terminology, freedom and rationality imply harmony with the nature or essence of the actor. The free actions are performed within the framework of laws of nature, not outside. The term *order of nature* is pertinent because as expressions of "God or Nature," the laws are not antagonistic or arbitrary from the standpoint of men, who are themselves expressions of "God or Nature."

Spinoza is, however, eager to eradicate anthropocentric ideas of order and purpose. Man may understand more and more of the laws, as laws of Nature, but doing so implies a gradual dismissal of notions of law arising

from his passive emotions, his original slavery under his passions. The genuine laws do not compel or coerce but make freedom possible.

Sir Karl Popper tried to save Einstein from his determinism, which “amounted to the view that the world was a four-dimensional Parmenidean block universe in which change was a human illusion, or very nearly so” (Popper 1976: 129). Popper wanted him to acknowledge fully “the reality of time and change” and an “open” universe, “one in which the future was in no sense contained in the past and the present, even though they do impose severe restrictions on it” (ibid., p. 130).

It is not entirely clear what Einstein answered in these discussions, but he was scarcely moved in his basic views. The limitation of Popper’s approach owes to his comparing Einstein’s view to Parmenides’ view rather than to Spinoza’s. The latter comparison would hardly have made the discussion simpler, but it certainly would have been more to the point.

Insofar as laws of nature strictly deserve that name, they are in Spinoza’s view eternal. This, however, does not mean the same as that they are permanent in time. Differences in time are *irrelevant*, because these laws are “outside of time.” Consider the expression for π . Even if true, it is not to the point to characterize its validity by saying that it certainly is, was, and will amount to the same 3.14159. . . . Its validity is timeless rather than permanent.

The timeless laws of Nature are like Heraclitus’s law of *logos*: they are completely consistent with universal and pervasive physical change. “You cannot step twice into the same river,” but there is an eternal *logos* in the changing river. Change and time are real, but so are the timeless laws. Without the particular things with limited life span in time, there would be no eternal aspect of reality and no “God or Nature.”

This could be said, so far as I can see, by both Einstein and Spinoza without the slightest difference in basic meaning.

Einstein acknowledged that his proposals in the form of physical theories are free creations of the mind and that his laws, of course, are hypothetical, but he tended to hold that insofar as they agree with the basic laws of nature, the time dimension does not enter. Neither do intrinsic statistical factors.

According to Bohr, he and Einstein had a good-humored dispute about whether Spinoza, if he were alive today, would have agreed with him or

SPINOZA

with Einstein concerning the basically satisfactory character of statistical quantum theories as expressions of physical reality.

If we limit ourselves to the carefulest and most precise formulations of Einstein's negative conclusion, it is difficult to see how Bohr could have argued successfully that Spinoza would have agreed with his view rather than Einstein's. Perhaps, though, Bohr at that time was not confronted with Einstein's carefulest formulations. The latter stress that there is much truth in quantum theories, but as long as there is a basic statistical factor, they are incomplete: a complete theory would have to be nonstatistical—deterministic in Spinoza's sense.

Some Spinoza scholars will interpret Spinoza as Popper interprets Einstein: that the future somehow is contained and determined by the past. Then, however, one misses the emergence of the future through the actions of *natura naturans*, including the actions of the more or less living beings. One need not disbelieve in the *genuinely new* in what happens. There is nothing in the *Ethics* corresponding to the past-present-future mechanical determinism of Laplace. What happens is *not* arbitrary, *not* by chance. From that it does not follow, however, that what happens is contained and (fully) determined by the past.

Einstein sometimes talked as if he believed that human beings are determined to act by forces over which they have no control whatsoever. In an interview he is reported to have said the following—intended to counter-act the overestimation of his own personal achievements:

I claim credit for nothing. Everything is determined, the beginning as well as the end, by forces over which we have no control. It is determined for the insect as well as for the star. Human beings, vegetables, or cosmic dust—we all dance to a mysterious tune, intoned in the distance by an invisible piper.

(Quoted in Clark 1971: 422)

So far as I can see, it is only the complete determination from something distant that here contradicts Spinoza. He stresses our power in shaping events as part of God's or Nature's creative power. Einstein danced to the particular tune of Einstein when he acted rationally (*ex ratione*), that is, acted from "the necessity of our own nature" (*ex necessitate nostrae naturae*). Einstein often seemed to act that way, for example, in the discussion about the completeness of quantum theory!

We as persons muster a power extremely small compared to the total power of Nature; determination from far away is considerable, but not overwhelming: no part of God's power is of zero magnitude, and the specific power of Einstein was and is part of the power of God. "The power of man, as far as it is expressive of his own actual essence, is part of the infinite power, that is, essence, of God or Nature" (*Ethics*, part IV, proof of theorem 4).

Do these remarks solve any problems? Scarcely. The notions of time, timelessness, and determination are difficult to grasp and belong to the ultimate concepts of philosophy. It may be argued that if a philosopher does not grasp what his colleague says in these matters—despite repeated serious attempts at communication—not much can be done except to note this interesting fact. There may be irreducible differences among the "freely invented" (Einstein) conceptualizations through which reason tries to grasp reality.

Is Freedom Consistent with Spinoza's Determinism?

Inconsistency?

Spinoza has been charged with inconsistency in proclaiming both determinism and freedom.¹ Some have put forth weighty arguments against the charge, but the matter is still controversial. Many twentieth-century historians of philosophy have upheld the charge.

In one of the most widely read histories of philosophy, it is simply said that Spinoza denies human freedom. It is also said, however, that he tries to “have it both ways”: to maintain both an extreme determinism and an ethics presupposing freedom (Copleston 1963: 257).

In what follows I shall argue against the thesis on inconsistency and also try to clarify in what sense Spinoza is determinist, in what sense he is not, and *in what sense he did not take a definite stand*.

This undertaking derives its importance from the actuality of Spinoza's teaching, properly understood. I know of no philosopher after Spinoza from whom people can learn as much of significance for our life and community. We therefore need clear expositions of the doctrines of freedom, determinism, and necessity, expositions that do not contain unnecessary philosophical technicalities. In what follows I try to offer one such exposition.

This article was reprinted with permission from *Spinoza on Knowing, Being, and Freedom: Proceedings of the Spinoza Symposium at the International School of Philosophy in the Netherlands (Leusden, September 1973)*, edited by J. G. van der Bend (Assen, Netherlands: Van Gorcum & Comp. B. V., 1974), 6–23. Unless otherwise noted, all translations from Spinoza's Latin texts are by the author.

Determination: Meanings and Kinds

Determination is basically a relation between two relata, the determinans and the determinatum. If A determines B , B may or may not determine A . This holds good whether A and B are different or, in rarer cases, identical. The boundaries of Dutch administrative regions determine each other. We have then to do with a topological determination.

Given the function of whole numbers $y = f_1(x) = 2x$, the choice of x 's determines the y 's. However, we can also write $x = f_2(y) = \frac{1}{2}y$. The relation is symmetric. The choice of y determines the x 's. Or, less voluntaristically and more in the way of ontology, x 's determine y 's and y 's determine x 's.

In this formulation we still use a verb, *to determine*, that suggests a time interval. This we may eliminate in our example by saying that to every and any x there corresponds one and only one y , and vice versa. Time is eliminated. We obtain a key by which to survey in thought an infinitely rich set of pairs of numbers, namely, those satisfying the functions.

Two angles in a plain triangle determine the third. If the two are 30° and 60° , the third is 90° . The third, however, does not determine the other two. They may be 15° and 75° , or both may be 45° . The relation is asymmetric.

In these topological, algebraic, and geometrical examples, time does not enter. We might add a long list of other kinds of examples in which time does not enter.

If "time enters," that is, if A *antedetermines* B , if there is a difference in time, however small, between A and B , the relation is by definition, or by logic of time, nonsymmetric. If A determines B , B cannot determine A . If the ring of a bell determines Mr. Brown's immediate rising from his bed, this second happening does not determine the first happening. On the other hand, appropriate location of a bell may well determine the ring of the same bell if Mr. Brown jumps out of bed, hitting the bell. This only points to the relevance of a proper description of different contexts.

If A determines B and B determines C in time, one may or may not say that A determines C . Some concepts of determination in time are such that there must be time continuity between determinans and determinatum; others admit the possibility of an interval. The latter is the case when we in daily life say that the bell makes Mr. Brown jump out of bed: he may yawn before doing it without falsifying our contention.

Taking antedetermination to be a subkind of determination in a broad sense, we ask, Does Spinoza, when using the terms *determinare*, *determinatum*, *determinatio*, *predeterminatio*, intend to express an antedetermination or other kinds of determination? What can be learned from the many occurrences of the terms in Spinoza's texts, primarily the *Ethics*?

There is perfect agreement among Spinoza specialists that in *some* occurrences timeless determination is intended. Thus, the complete determination and causation of all things by God is clearly timeless. According to the doctrine of immanence of God in the world, or more accurately in Nature, God could not precede Nature, and create it. Further, when he causes himself, he does not precede himself in time.

Let us, however, raise the question "Are *all* occurrences of *determinare* (etc.) in the *Ethics* such that timeless determination is intended?"

At first it seems evident that some occurrences are of antedetermination. Thus IP28 has been largely interpreted to refer to chains of events in time.

In IP28 and its complicated demonstration, however, there is no *direct* reference to time or duration. One thing (*res singularis*) is the cause of another, which in turn is the cause of a third. IP28 would furnish occurrences of *determinari* and *determinatum* in the sense of antedetermination if, and only if, the *determinatum* according to IP28 or its proof follows immediately after the *determinans* in time, or after an interval of short or long duration. There is no direct indication of this, but even if there were a reference to time, it need not be the one-dimensional *historical* time in which each unique limited event starts to exist at a certain date and to vanish at another. The equations of physics contain "t," but they do not contain dates.

We can therefore not without arbitrariness infer from the occurrence of the term *causa* in IP28 that there is a case of antedetermination. The causation may be of one of the timeless kinds, for example, that of delimitation or of giving a reason or ground for something. Or it may be the delimitation of one thing or power in relation to others.

The Infinite Chain of Timeless Causes or Reasons

In IP28 a singular thing is said to have a cause, which again has a cause—not several or infinitely many causes. We thus are led to picture a simple chain of causes—and why not then a chain of events in historical time?

Time is one-dimensional. The most important argument in favor of interpreting IP28 to tell about processes in time stems from this peculiarity. One thing seems to have only one cause, and if so, it is natural to think of something just preceding it. There are, however, many reasons for hesitation.

The cause of a particular thing—its existence and way of operation—is according to Spinoza identical with that through which the thing is understood. The understanding of the cause *contains* the understanding of the effect. The cause of the cause is, again, something through which the latter can be understood. Thus, we have here a chain of causes corresponding to a chain of questions “why?” and “how?” It is not a time chain, however. At least not when we cognize the second or third way.

Time is an *ens imaginationis* and this influences the status of time cognitions.

That through which something is understood has a form of unity through its hermeneutic function. It is therefore not unnatural to refer to it in the singular—as the cause rather than the causes. This may contribute to the explanations of why Spinoza uses “cause” in the singular in IP28.

If *B* is understood through *A*, *A* may, according to common usage, be something existing before *B* in time or it may not. This holds even if *A* and *B* are particular things. Giving examples should be easy, but I hesitate because of the complicated use of the term *res* in the *Ethics*. Is a man, a horse, or a happening a singular thing (*res singularis*)? If a concrete happening or event is a thing, time may not enter in its explanation. “The cause of the increased pressure is the increase in temperature.” Here the increase in temperature does not *precede* the increase in pressure. There is no antedetermination.

Causes are said in IP28 to determine existence and definite ways of operation. The reference to operations in IP28 therefore does not suggest that *causa* as used in IP28 is something determining something that will appear later.

Conclusion concerning IP28: There is in IP28 and its proof no decisive argument in favor of complete or incomplete determinism in time. The determinism may be one of timeless determination, for example, in the sense of lack of arbitrariness or chance.

In *Letter 23* Spinoza says that “all bodies are surrounded by others, and are mutually determined to exist and to operate in a definite and determined matter.” Mutual determination of *A* and *B* occurs when *A* deter-

mines *B* and *B* determines *A*. Here the determinatum cannot follow after the determinans in time; the effect cannot precede the cause. Clearly, Spinoza sometimes speaks about mutual physical determinations that do not make up one-dimensional chains and therefore do not indicate succession in time.

Spinoza sometimes stresses explicitly that “the definite way a thing exists and operates” does *not* refer to duration. Thus, in the preface to part IV, the definite *kind of way* of operation is determined by the essence of the thing, but the essence of a thing does not precede its operation in such a way that after the occurrence of the essence, the thing starts to operate. Determination by essence, if we apply the definition of essence in part II, precludes temporal or processual determination. “The reality, that is, the essence of a thing in so far as (the thing) exists and operates in a certain way, has no relation to its duration.” If the essence determined the operation as a chain of events in time, it would also determine beginning and end, that is, duration. From this I also infer that the determination by essence cannot be in time.

In a chain of events, the event *A* just preceding event *B* may be said to determine the existence but scarcely the operation of *B*. Events do not operate. If a cause *A* determines both the existence *and* the operation of something *B*, *A* must at least have a concrete kind of thing-character, not event-character. The time relation is then either irrelevant or only accidental.

From all this I also tentatively conclude: a complete description of *the way* in which a thing exists and operates does not contain dates. The mutual determinism of all ways of existence and operation is not a determinism in time.

All possible things are, according to Spinoza, expressions or manifestations of Spinoza's God. Perhaps this God is simply not interested in a definite order in time? And Spinoza was perhaps not interested?

Antedetermination and Timeless Kinds of Determination

It is my first tentatively asserted general thesis that what holds of IP28 holds for the *Ethics* as a whole: there is in the *Ethics* not one occurrence of *determinare* (etc.) in the sense of *antedeterminare*—determination in time. More accurately, I assert that there are no *decisive arguments* for the conclusion that *determinare* (etc.) anywhere refer to determination in dated time.

Some formulations by Ernst Cassirer (1920), Harald Höffding (1950), and other highly professional students of Spinoza seem to imply a conclusion in the same vein, but they may not be intended to do so, and their authors have not offered a detailed discussion of relevant evidence in the text.

An objection to the general thesis (the thesis generalized from our conclusion concerning IP28) can be based on a text unit in part II. Spinoza has there inserted a mechanistic physics. He discusses such events as pushing: one body giving another body a push. The first body antedetermines the movement of the second. The second may, in turn, determine the movement of a third.

The proof of the third lemma of this part of the *Ethics* resembles in phrasing and style the proof of IP28. It is, I think, perfectly legitimate and also highly interesting to interpret the more general IP28 in conformity with the more narrow lemma 3. We then obtain an interpretation of IP28 that binds us to a kind of universal determination of durations, which endangers the status of consistency between propositions on determination and propositions on freedom. It is one of my contentions that carrying over such a binding or prejudgment or anticipation from parts I and II to parts IV and V is methodologically unwarranted and harmful. Our conclusion: the determination envisaged in lemma 3 of part II includes complete antedetermination, and its physics of bodies may through an interesting generalizing reconstruction be made to cover the whole doctrine of extension in the *Ethics*. This kind of reconstruction or interpretation, however, is not the only plausible one consistent with the text as a whole.

Among the timeless kinds of determination are some of particular importance for our general theme: (1) Determination in the sense of *delimitation*. Finite things have boundaries, limits that mark them off from other things. Things are defined by such delimitations. "All determination is negation." (2) Determination as emanation. From God as cause and determinans the world emanates according to Jewish and other medieval philosophy that influenced Spinoza. The immanence of *Deus sive Natura* precludes emanation in time. (3) Determination of kind. Anger causes something and something causes anger. That is, the *kind of* affect called anger has certain *kinds of* effects. Or, more nominalistically formulated, members of the class of angers have effects of certain limited differences, thus making up a natural class. Particular things in the sense of particular *kinds of* things have

particular *kinds* of effects or manifestations. Anger, nominalistically conceived, does not precede its manifestations, however.

The third concept of determination, classes of things having classes of effects in common, is particularly important for the theory of active emotions in parts IV and V of the *Ethics*. This theory, again, plays an important role in provoking arguments that Spinoza's theory of determination contradicts his doctrine of freedom through conquering passive emotions.

Let us inspect some determinations of class (genus determination). (a) "The free man . . . tries to join other men in friendship" (IVP70Dem). I interpret this in terms of classes: members of one class of things (*res*), namely free men, cause the establishment of another *class* of things, friendships.

Free men *necessarily* try to establish friendships, they are *determined* to do it, but nothing can be said about a particular free man at a particular date. The essence of free men is such that it determines every member of the class of free men to try to join other men with success or without success. (b) "[H]atred is increased by being reciprocated, and can on the other hand be destroyed by love" (IIP43). Here again, determination *as asserted* by Spinoza is a relation between kinds or, better, between classes of things. Definite ways of operation are asserted, but in the sense of classes of operations forming ways. Details are left out.

Even when Spinoza speaks about *res singulares*, particular things, it is at least sometimes clear that he speaks about particular *kinds* or *classes* of things. This implies that Spinoza is not talking about a strictly singular temporal sequence of events, the one and only one *history* of nature, including man. In that case he would be speaking of strictly singular things at definite *dates*. Of course, Spinoza may have had the opinion that a definite unique singular anger elicited a completely definite reaction. This opinion is not expressed, however. (Moreover, it is false, I think, because the reaction would, for example, also be determined by the level of freedom of the recipient, the customs of his social class, and the physical medium between the angry person and the recipient of the anger. In short, all Nature is involved.)

Laplacian Universes: Not Spinoza's Concern

Datedness becomes decisively important as soon as we by determination think of causal determination à la Laplace. The state of the universe at time

t_0 determines in all details the state of the universe at the next moment $t_0 + d$, where d is the smallest meaningful quantity of time.

We may think of a film played more and more slowly. What happens in the next picture is determined by what we see in the foregoing. With ordinary films, we soon see walking as a series of jumps and jerks, because of the relatively long time interval between the photos taken. The state of affairs at time t_0 clearly does not cause these jumps. The Laplacian view, however, is that the time intervals must approach zero for us to arrive at accurate predictions. Knowledge of the man walking must include knowledge of his position at different times with a millionth millimeter accuracy, forming part of the knowledge of the so-called *Randbedingungen* at the atomic level. Some kings have stumbled and because it has been taken as a bad omen, the miscalculation of millimeters and seconds has great historical consequences.

The development of the universe is one single process in time, and since no pair of macroscopic objects or pair of cubes in spaces are likely to be only arithmetically different, determination cannot be expressed by what happens to kinds or to classes of things. Two grains of sand, or two human beings always subjected to different forces according to where they are, will have different histories and will influence the rest of the universe in different ways. Spinoza's determinism of classes does not suffice to generate a Laplacian determinism.

The Laplacian model of the universe is strange and abstract, but it has with slight alterations (owing to quantum physics) somehow entered the thinking of practically everybody impressed by physics as the source of so-called scientific worldviews.

Even if class determination somehow were completed—the laws of *all* kinds of things being stated—there would still be no way of predicting any future event from the present. Spinoza sometimes uses the term *to predict*, especially in his *Theological-Political Treatise*, but not in any way connected with the question of predictability of world development.² Spinoza does not discuss to what extent, if any, an event can be predicted from something that is determined—the determinatum.

This means that the *Ethics* does not provide or intend to discuss any determinism adapted to physics or natural Newtonian or Bohrian science in general. *To attribute natural science determinism to Spinoza is totally misleading.*

This implies that the discussion concerning the consistency of natural-science determinism with Spinoza's doctrine of freedom is irrelevant. They have never been asserted together.

The determinism of physics is the only form of determination in time (antedetermination) that has been conceptually worked out in detail. The antedeterminism of fate, fatalism, concentrates on a small range of important events such as death, salvation, and marriage. Spinoza perhaps subscribes to that fatalism (cf. VP52). Even if he does, however, this view is very different from general antedetermination. Even if fate orders somebody to die in an airplane crash, he or she can live different ways until death.

It is significant that a contemporary philosopher with exceptional appreciation of Spinoza nevertheless upholds the view that his determinism is of a Laplacian kind. As a consequence, Spinoza's view is criticized as out-of-date.

[M]etaphysical determinism, of which Spinoza was the most uncompromising proponent, no longer seems such an acute issue to philosophers and moralists. . . . The simple faith of Laplace in the theoretical possibility of a complete explanation of every state of the universe is now generally represented as logically absurd. Determinism in this extreme form seems plausible only at a time when the possibilities of complete scientific explanation are accepted as absolutely unlimited.

(Hampshire 1951: 154, 156)

Spinoza was not interested in complete explanations of a state of the universe, and his idea of the vast possibilities of human understanding is untouched by the impossibility of complete explanations of such states.

According to Hampshire, Spinoza adheres to "metaphysical determinism" of a Laplacian kind. He was a child of his age. "[A]n effort of imagination is now required in order to reconstruct the intellectual conditions in which it seemed generally plausible" (ibid., p. 154). If what we have said in the foregoing is tenable, Spinoza has not given us any ("ruthlessly stated") exposition of antedeterminism or of a determinism of events. *His problem was never even similar to that of Laplace.* We do not need to invoke the "child of his age" excuse.

Unhappily, the belief in Spinozism as a sort of inconsistent "mechanis-

tic determinism” colors its reception in a great part of human society: the part in which dialectical materialism is taught.

Spinoza’s Concern: Essential Relations

To get nearer to Spinozistic determinism, we shall proceed from the discussion of determination between kinds or classes of things to the discussion of *relations of essence*. What engages Spinoza are the things that follow necessarily from the nature of the human predicament. As a theoretical starting point we may take what is said in IIP7Dem:

From the given essence of anything there follows necessarily something; but only that is in the power of things which follows necessarily from their definite nature.

Most of the theorems concerning man I take to express what follows from the nature, that is, the essence, of man. Some examples have already been stated above. Others are: “Our mind is active in relation to some things and passive in relation to others: in so far it has adequate ideas it acts with necessity . . .” (IP1). “The acts of the mind originate in adequate ideas, the passions [passive states] depend only upon inadequate ones” (IP3). “Desire arising from joy is, other conditions being equal, stronger than desire arising from sorrow” (IVP18). (The theorem does not assert something about one particular desire and one particular joy, but something about every particular desire and every particular joy. Thus, the theorem asserts something about essential relations between members of *particulars* forming classes.) “An affect cannot be coerced or suspended except through an affect that is contrary and stronger than the affect that is being coerced” (IVP7). “He who imagines himself to be hated by another, and believes that he has given him no cause for hatred, will hate that other in return” (IIP40).

In the last example, the term *imaginari* is of central importance.³ The law of human nature expressed by IIP40 concerns imagination or knowledge of the first kind. Hatred is only an object of knowledge of the first kind. The essential relation expressed by IIP40 is not characteristic of free men who answer hate with love and generosity. If the limitation of IIP40 is forgotten, it is easy to construct a case of inconsistency between theorems in part III and some of the latter half of part IV of the *Ethics*.

Asserted essential relations are asserted relations between *classes of particulars*, not between unique particulars, dated or undated. The particular operation of things *in time* is therefore not determined by essential relations. Durations can, according to the “uncertainty theorems” on the “common order of nature,” only be guessed; cognitions of them are highly uncertain. They are even uncertain *in God*.

Spinoza does not pretend to offer a key to knowledge of particulars in time.⁴ What, then, does he offer us?

Spinoza's important claim is that the way to freedom and salvation depends largely on knowledge of essential relations. His mission is to impart such knowledge to us.

The total set of essential determinants for the person or group or community at *A* causes, under the given conditions, *A*'s decision or action. “What *A* will do,” “how *A* will react,” must lie within a boundary, a limited field of possible actions. Suppose a possibility is actualized that results in a new situation at point *B* within the field. From that point there again is a variety of possibilities within the limits put by essential determinants—and so on, as illustrated above.

Freedom Through Insight into the Determination of Essentials

What we need along our road of increasing freedom is increasing insight into our nature or essence. In particular, we need to know more about our power and its limits. Thus IVP₁₇Sch:

[I]t is necessary to get to know both the impotence and potency of our nature, so that we can determine what we can and cannot do in controlling our affects.

In any situation, what we can do will be many things, not one: a field with boundaries, not a point. The increase of knowledge concerning our nature or essence is an increase of knowledge about (necessary) relations between our essence or nature and that of other things, and necessary relations within our essence or nature. This does not restrict the field but clarifies its extent.

The predicate *necessary* is strictly speaking superfluous because relations within essences or between different essences are not open to external influences. (Modal logic is therefore largely an unnecessary tool.) Necessity

as predicated of the essential relations is by Spinoza opposed to arbitrariness or chance. Necessity is, as he often stresses, not a kind of coercion: necessary is what follows from the very nature of a thing as part of that thing. The necessary partakes in the very definition of the thing. A thing does not coerce *itself*. The term *necessary* would never be used if our insight and our language permitted the presentation of the whole of a thing.

Conclusion: Except for criticizing Descartes's doctrine of free will, or better, *liber arbitrium*, Spinoza does not enter into the debate about antedetermination of the particular consequences of a particular choice. It suffices for him to assert the complete determination of the frame or condition of choices by *the structures of essential relations*. Certain imaginings of philosophers, and of Descartes in particular, must be fought at all cost so that we realize our constitutional limitations (Spinoza the great realist and naturalist!), but the realistic assessment of the limitations must not make man despair on his road toward the greatest heights of freedom and power.

Grades of Power and Freedom

Spinoza does not shrink from talking about what *we* perform or are able to perform: "if we remove . . . an emotion" (VP2); "we form a clear and distinct idea" (VP3); "we have the power of arranging" (VP10); "we are active" (VP18Dem). These expressions are taken from the part dealing with our freedom, but similar expressions are found all through the *Ethics*. We find also a number of exhortations: we must take notice of, understand that. . . . There is no hint in the *Ethics* that this way of speaking sometimes makes Spinoza uneasy. We, persons, members of *Homo sapiens*, are of course able to decide more or less freely to do or not to do such and such. This ability is a necessity of our nature and its recognition part of our insight into essential relations. However, Spinoza's trust in our justification for speaking as exemplified by the above quotations is not shared by all readers—and for good reasons. One of them is the not very clear separation of two concepts, a kind of absolute and a kind of relative freedom and power. Freedom is for Spinoza intimately connected with activity and power.

Definition 7 in part I, the definition of "a free thing," is such that it can apply only to God or substance. In the first part, and also later, Spinoza states, however, that only God is *absolutely* free. This suggests that some-

thing might be free, but not absolutely free. It suggests that Spinoza thinks of freedom as a matter of degree and/or as something we realize in some but not all situations. I shall for the sake of simplicity mostly use the term *degree*. In a few places Spinoza explicitly uses a notion of freedom such that freedom is a matter of degree.

The man who follows reason is more free (*magis liber*) in a state . . . than alone.

(IVP73)

This is the only explicit grading of freedom in the *Ethics*. In *Letter 21* there is another occurrence:

Our liberty is placed not in a certain contingency or in a certain indifference, but in the mode of assertion or denial, so that the less indifferently we affirm or deny something, the more free we are.

Then there is a famous superlative, *liberrimus*, “most free,” in *Letter 58*, quoted earlier in this article, not registered clearly in Boscherini’s excellent *Lexicon spinozanum*.

In *Political Treatise* 2, 7, we find a grading:

The more, therefore, we consider man to be free, the less we can say, that he can neglect to use reason. . . .

This occurrence is of interest also in connecting freedom and necessity: the free man *cannot* neglect reason, he is not *forced* to use reason; but he necessarily uses it, this belonging to his very nature or essence as a free man.

The adverb *libere* is sometimes graded, but perhaps with less relevance for our argumentation. The many occurrences of the expression *absolutely free* (*absolute libera*) and similar expressions with “absolute” are evidence of a broader concept ‘freedom’, with absolute freedom as a special kind or case. Such evidence supports our main conclusions.

Among the free men there may be differences in power, and this makes for, or simply (see IVDf8) is equivalent to, differences in degrees of freedom. According to IVP46, free men strive *as much as they can* to compensate hate with love and generosity.⁵ It is reasonable to suppose that their amounts of power are not identical—but that some have more and others

less. Through the equivalence of gain in power and gain in freedom, this implies differences in degrees of freedom within the class of people Spinoza would consider to be free men in a broad sense.

The combination of a graded use of *free* and the use of expressions like *absolute free* as applied to God, permits us to establish the existence of a broad and a narrow concept of freedom. As a designation of the narrow concept, however, Spinoza sometimes uses simply *liber* without any absolute qualification. It is this usage that gives rise to charges of inconsistency. Man cannot be both free and not-free, at least not under a definite set of conditions, but man *can* be moderately free and therefore moderately unfree. He is both—not absolutely free and not absolutely unfree. This is part of his predicament.

With the establishment of the two different notions, the absolute and the graded, the road is open to eliminate alleged inconsistencies between sentences predicating freedom and sentences predicating lack of freedom.

A series of propositions in part IV, IVP69–IVP73, describe the free man. The way they are talked about strongly suggests that *Spinoza thinks there are free men*. There is nothing hypothetical about them. Spinoza writes in the indicative mood about people “who are ruled by reason” (*Ratione gubernantur*, IVP18Sch) and who “look for what is useful for them guided by reason” (IVP18Sch). On the basis of the above distinctions we take free men to be predominately free—free to a rather high degree, free in fairly numerous important situations or respects. Some assertions on freedom are thus robbed of absolutism, but others clearly are intended to express absoluteness. “That thing is called free, which exists out of its nature’s necessity only, and is determined through itself only to act.” The expression *res libera* in IDf7 is taken to be shorthand for *res libera absoluta*. *Causa libera* in the first part is synonymous with *causa libera absoluta*.

When men are said in IP17Sch to believe they are free, absolutely free is meant. This belief is an illusion, but there are also cases of illusions of non-absolute freedom, as we shall see later.

What Freedom Consists of, According to Spinoza

Spinoza says that freedom presupposes necessary relations and therefore the absence of contingency. When a free agent chooses act *A* in preference to *B*,

the difference in preference must follow with necessity from the nature and striving of the agent and from the agent's insight into the situation. Otherwise, what *is* freedom? There are more or less complete extensional, if not intensional, equivalences between the term *free* and certain other expressions.

In a number of contexts Spinoza says that to be free *is* to follow or be led by reason, which *is*, again, the same as to act out of virtue. To be unfree *is* to submit to passive emotions (affects), to be the slave of (passive) passions. By implication, the free acts from active emotions.

There are other extensional equivalences, based on IVDf8, IVP24, IVP25Dem, IVP26Dem, IVP52Dem1, and IIIP55Dem2. Accordingly, to act freely is to:

- Act in accordance with one's essence
- Act in accordance with one's nature
- Act from the laws of one's own nature
- Do what follows with necessity from one's nature
- Act, and not from contingency or indifference
- Effect what can be understood from the laws of one's nature
- Act from power
- Live according to the dictate of reason
- Conserve one's being according to reason
- Base one's actions on the fundament of seeking what is really useful

To find out exactly what *kind* of relation of equivalence holds at each particular place in the text, one would have to go deeply into the doctrine of definition, essence, and method as suggested, but not elaborated, by Spinoza in *On the Improvement of the Intellect* and other writings. Here it suffices to remind oneself of the inner relations between the term *free* and other terms in his system. It does not work to try to isolate a problem of freedom from the problems of essence, nature, power, reason, active emotion, and adequate ideas. The study of Spinoza is an exercise in systems thinking on the fundamental level.

There is in the *Ethics* nothing hypothetical about free men. The equivalences broaden the relevant places. When in IVP66 Spinoza says that *we*

strive when led by reason to prefer a greater future good to a lesser present, *we* are to that extent free. In the demonstration he uses an analogous expression: “to the extent that we take notice of reason itself.” When Spinoza in the note to the “pessimistic” IVP₁₇ stresses that he reckons with the difference between those who have and those who do not have insight, he by implication points to the moderate or relative difference in level of freedom. The equivalences give the “road to freedom” a richer and more earthbound sense. It is a path we all struggle along, with minor or major lapses. Occurrences of an explicit grading of “free” are rare, but there are many occurrences in which the equivalent expressions are graded. They support our conclusion that the freedom envisaged by Spinoza and applied to human beings is proportional to the extent to which we act from the necessity of our own nature. As in his treatment of common sense, he does not find relevant the question of whether our nature “ultimately” is causally fully determined by something else. The relevance of “ultimateness” only makes sense when we are thinking about time: our nature did not exist before we were born or conceived. If, therefore, we conceive of complete determination as occurring in time, our nature is not ours but a nature prefabricated by something else. Spinoza does not offer such reflections because the determination he talks about is a mutual one, an interdependence. It is only the time dimension that is one-dimensional and gives rise to the thought “I am completely prefabricated.”

The Fictive Human Freedom

If we equate “from necessity” with “not from contingency or indifference,” the necessity postulated by Spinoza says no more than that there is an inner relation between the nature or essence and the acts performed. The acts are manifestations of the nature or essence, and without the acts the essence would be a mere word or fiction. This reveals the dynamic character of the notion of essence (closely related to *conatus*).

Men act from a mixture of causes or determinants, only some of which are internal, that is, follow necessarily from their nature. Men tend to be unaware of the noninternal determinants, the “external causes.” They all tend to believe that they act in such and such a way for *no other reason* than

that they want to act in that way. With this in mind, let us inspect a famous passage in *Letter 58*:

[A] stone receives from an external cause, which impels it a certain quantity of motion, with which it will afterwards necessarily continue to move. . . . Surely this stone, inasmuch as it is conscious only of its own effort (*conatus*), and is far from indifferent, will believe that it is maximally (completely) free (*liberrimus*), and that it continues in motion for no other reason than because it wants to (*vult*). And such is the human freedom which all men boast that they possess. . . .

Absolutely all men? Or all men who boast? Or what? In this letter Spinoza seems in his rhetorical mood to forget for a moment his free men alluded to in part IV of the *Ethics*. They have been said to understand their own actions, and at least some of them have presumably read and accepted what Spinoza says in his *Ethics*! They, at least, clearly did not boast of their so-called *liber arbitrium*.

If, however, we are spontaneously conscious only of our own effort in the sense of our own *conatus*, this explains that we all are *liable* to take internal determinants to be the only determinants of an action. The mistake is one of analysis, and it does not disqualify the spontaneous consciousness of freedom. This consciousness is not a registration of free *will* or of *all* determinants. If we decide to open an umbrella, a spontaneous feeling of free decision governs the act, and we have good grounds for taking this freedom at face value. That the rain externally caused us to do so is irrelevant.

If we have an inclination for analysis, we may take the time to try to list determinants, *including* the external ones. We shall then avoid neglecting the rain, our clothing, our bad health, our cultural determinants, perhaps our conscious vanity, our distaste for polluted sulfuric acid, a slight joy in using our new umbrella, and whatever else. None of these determinants need furnish any arguments against the (nonabsolute) freedom of our action. If, however, we later find that we used the umbrella because of hypnosis or passive affects, we shall arrive at a low estimate of freedom, perhaps a high degree of slavery under passions or a kind of automatism in that particular situation.

The *illusion of freedom* from false analysis is not universal and constant.

SPINOZA

Otherwise, Spinoza's examples would not single out people with weaknesses or those not yet ripe for making a correct causal analysis:

So the infant believes that it freely wants revenge; the timid that he wants to escape. Then too the drunkard believes that, by free decision of his mind, he says those things which afterwards when sober he would prefer to have left unsaid. (Letter 58)

If sober we may freely decide not to say certain things, but this freedom does not reveal *liber arbitrium*. It reflects in action our nature or essence as an integrated personality.

So the delirious, the garrulous and many others of the same sort, believe that they are acting according to the free decision of their mind, and not that they are carried away by impulse. (ibid.)

By "others of the same sort," Spinoza refers to that subgroup of people at a low level of freedom. "Carried away" is another way of describing slavery under passive emotions.

The *illusion* of freedom is, in other words, characteristic of uncritical people, in uncritical moments; it is not characteristic of human beings as such. Some people have *insight into* their own freedom, an adequate idea of their own freedom. The illusion of freedom is not a necessary consequence of human nature or essence, but neither is its absence.

How much people differ from one another, says Spinoza (in IVP66Sch), is clear when comparing IVP18 with IVP66, both of which may be true without inconsistency. The former concentrates on people who are led by passions or opinions, whereas the latter is about people who are led by reason. It is absurd to take what is said about "the delirious, the garrulous and many others of the same sort" to hold about the people led by reason. We could then, for example, derive from IVP66 the following theorem:

Those who prefer a future greater good to a smaller present good believe falsely that they are acting according to the free decision of their mind, and do not understand that they actually are carried away by impulse.

We can as our conclusion subscribe to that of the master himself in his letter to Schuller: "[I]f you will attentively examine my view, you will see

that it is entirely consistent.” We subscribe, but add a qualification: we cannot *see* this consistency, but we can work out a consistent reconstruction on the basis of a set of plausible interpretations. At least, this is what I have tried to do.

Summary Concerning Freedom of Decision

1. The immediate and spontaneous feeling of free choice and decision is a consciousness of our own *conatus*, our basic dynamics, and expressive of our own particular essence or nature. There is nothing illusory about this feeling.
2. The feeling of free choice is sometimes taken to be an indicator of the complete set of determinants of action. From this stems the illusion of complete or absolute freedom, in the sense of absolute self-causedness or total absence of causes.
3. The feeling of free choice is a genuine indicator of internal, not external, determinants.
4. The extent to which we are determined (“internally”) by our nature or essence is a matter of degree. It is never total; it is never zero.
5. The way toward an increased level of freedom, that is, internal determination, is through clarification of our affects, by which means they are converted from passive to active emotions.

General Summary

6. The thesis that Spinoza does not predicate freedom of human beings is false, as is the thesis that if he did, it would result in an inconsistency with his determinism.
7. *Freedom* and *determinism* are imprecise words with a variety of meanings, some of which are such that “*x* is free and *x* is determined” expresses or implies a contradiction, whereas others do not. Among the latter we find those best adapted to the text of the *Ethics*. These meanings have deep roots both in everyday thinking and in the thinking of philosophers before and after Spinoza.
8. Spinoza judges men to be more or less free and therefore also more or less unfree. There is no definite upper limit to human freedom, but it cannot ever be absolute as in God.

SPINOZA

9. The freedom that Spinoza proclaims to be realizable is one that is widely held in everyday life to be realizable: to be determined in our decisions from our *own* nature, from the depths of our soul, from the integrated action of our personalities, and not from pressures, external circumstances, or passions that overrun us; and of course not to act unintelligibly, unmotivatedly, chaotically, unaccountably, blindly, randomly, designlessly. When we judge ourselves free in this sense or these senses, we have not yet asserted anything about how we (since birth?) have developed into what we are: we are not speaking about remote causes *in time*. Neither does Spinoza in his judgment, but he stresses that external determinants are always in operation at any definite time, therefore also at the time of our birth—and before that.

10. Spinoza's determinism is one of essence, *complete determination of essential relations between things*. It is not a determination of particulars, dated or undated; it is not a doctrine of antedetermination. Spinoza does not defend any such doctrine nor does he criticize any. He was not seriously engaged by the problem. What I have attempted, therefore, is only to help a fly get out of a bottle.

Spinoza's Finite God

In interpreting Spinoza there is a trend going back at least to Fichte and Hegel that lets the individual disappear or “melt” in the substance or in timeless being. Kolakowski even talks about a suicide—a murder of self—and mystical destruction of self (*Selbstzerstörung*).

One of the presuppositions of this kind of interpretation is that of taking part I of the *Ethics* as regulative for the other parts. If a proposition of part IV or V is inconsistent with a particular interpretation of part I, the principle of consistency accordingly would demand a change in the latter parts, not in part I. Just as in a system in mathematics, however, one may ask which interpretations in an early part would make a theorem in later parts consistent with the whole.

In part I free/unfree seems to express an absolute dichotomy, God being the only free entity. In the last part, however, some human beings are called free, and freedom and self-determination are predicates admitting more or less. Considering the system as a whole, I have in what follows attributed equal weight to all parts of the *Ethics*. It seems then possible to attribute a high ontological status to particular things and especially to the human person. I shall concentrate on the relation between Spinoza's God and particulars.

First, though, I need to mention certain questions concerning the understandability or availability of Spinoza's system today.

Martial Gueroult's very learned interpretation of part I of the *Ethics* is expressed in a compact text, 586 pages long (Gueroult 1968). If he had been able to cover all five parts, I suspect his text would have run to at least 3,000

This article was reprinted with the permission of the editor, Michel Meyer, from *Revue Internationale de Philosophie* (Presses Universitaires de France) 135 (1981): 120–26.

pages. A great number of difficult terms and passages of part I are explained—but in terms of what?

Unfortunately, the explanans expressions are on the whole no more easily understandable *today* than the explanatum expressions. They primarily give explanations that Spinoza himself might have accepted as in harmony with his own views and terminological preferences, but twentieth-century European readers ask for explanations that both are acceptable in terms of Spinoza's intentions and are, as a whole, understandable today. I am afraid this is asking for too much.

Against this manner of putting it, it might be argued that the way to understand Spinoza's text in its strictly intended meaning is to study the seventeenth-century situation of Spinoza so deeply that, perhaps after many years of concentrated effort, one is, in a certain sense, able to think, feel, and talk like Spinoza. Like many others, I would be delighted to contact such *replicas* of Spinoza's mind. I would attentively study the behavior of such persons in our modern context, and I would of course have innumerable questions to ask.

Unfortunately, I do not see how we could expect wholly understandable answers from such persons. Conceivably, answers would resemble those of Gueroult or other (intrasystemic) systematizations. That would not satisfy me.

Let us for illustration inspect a passage from Gueroult's *Spinoza I*.

Gueroult stresses again and again the incommensurability between the universe, or the finite and infinite modes, and God. Nevertheless, the complicated, carefully written section 7 of his chapter on God as cause, ends with a very simple illustration.

L'incommensurabilité entre l'univers et Dieu n'implique donc pas leur dualité comme êtres extérieurs l'un à l'autre. De plus, elle est ici seulement celle de l'effet à sa cause, et non, comme dans la théologie traditionnelle, celle du fini à l'infini, de l'imparfait au parfait, dont entre eux la proportion est nulle. Il y a, au contraire, sous ce rapport, stricte égalité entre Dieu et l'univers, de par l'identité d'être de la Nature Naturante et de la Nature Naturée, celle-ci étant, tout autant que celle-là, infiniment infinie et parfaite. Pas plus que les modes ne sont *quelque chose de plus s'ajouterait à Dieu*^a, ils ne sont, pris dans leur infinité infiniment infinie, *quelque chose de moins*, en quoi Dieu déchoirait^b. Ce sont véritablement les deux faces de la même médaille.

(Gueroult 1968)

How much am I able to understand of these explanations, even after years of studying the seventeenth century and Spinoza? Primarily that a medal has two faces, perhaps each very different from the other, but nevertheless inseparable from the medal as such and as a whole. Perhaps I have understood how the faces can be faces of the medal without being parts of it—but this is all I understand. The exact status of God, as described in the quoted passage, I do not understand.

Commenting on IP25Sch (part I of the *Ethics*, Proposition 25, Scholium), “God should be said to be cause of things in the same sense as he is said to be cause of himself,” Gueroult says:

De toute évidence, cette thèse n'est concevable que parce que les choses produites, étant tenues pour des propriétés inhérentes à Dieu, sont dans cette mesure Dieu même, si bien que Dieu ne peut se causer sans *ipso facto* les causer elles aussi.

(Ibid.)

The kind of conceivability here asserted by Gueroult is a hypothetical one: “if you know the sense of ‘God causes himself’ (and certain other expressions), then you can conceive that God should be said to be cause of things in the same sense that he is said to be cause of himself.” Mostly, what Gueroult does (and most other experts do) is to assert hypothetical conceivability, understandability of a text unit, presupposing that other units of just as doubtful conceivability for a modern reader are already conceived or understood.

From this I do not conclude that it is pointless to study the text of the *Ethics* or of Gueroult. My quotations from Gueroult I use in defense of a freer attitude toward the text of the *Ethics*. I defend the use of the text to formulate points of view that might not be intended by or even acceptable to Spinoza, but that are based on more or less plausible interpretations of parts or the whole of his system.

One such point of view: the existence, operations, and essence of God *are dependent upon* that of the particular things. Without the existence, operations, and essence of the things, there is no God. IP15I would supplement this point of view with “Whatever exists, exists as a particular thing, and nothing can exist or be conceived without things.”

The Latin word for “thing” should here be *res*, not *modus*. The totality

of things, *Natura*, would constitute the medal envisaged by Gueroult. *Natura naturans* and *natura naturata* would constitute the two faces. The criterion of “*x* is a particular thing” would have to be elucidated, since a usual atomistic interpretation, covering chairs and pens (to mention conspicuous examples from many Western philosophers), scarcely would qualify. The definition should be such that it gives good sense to say that all individual things are “animated in various degrees” (IIP13Sch).

It is instructive that Spinoza has no word or expression for the medal as a whole. The expression “what there is” (or “*omnia quae sunt*”) does not qualify because according to IAX1, all that is either in itself or in something else, is either substance or mode (IP29Sch).

The modes are the expressions of God (cf. IP25Cor, etc.), and without those expressions there is no God. The expressions are caused by God in the same way that God is caused by God. This follows from IP25Sch, the expressions being the same as the things.

Conclusion: the existence, causation, and essence of God are dependent upon the expressions of God.

The dependence relation is primarily a *conditio sine qua non* relation: *A* is a necessary condition of *B*; without *A*, no *B*.

Since causation from God as cause is in general a necessary relation, it is a necessary relation to the essence of each thing. From this it follows that for each thing's essence one may say that without that particular essence there is no God. God's existence, causation, and essence depend upon each particular essence of things.

Now I shall refer to the chief evidence of these finitist interpretations.

In a large important class of occurrences of the term *Deus*, the term is part of an expression *Deus quatenus*, “God as . . .,” “God insofar as. . .” This class reveals that God has two aspects seemingly of equal stature: *Deus modificatus* (“God as modified”) or *Deus non quatenus infinitus est*, and *Deus infinitus*.¹

It is my claim that the text of the *Ethics* viewed impersonally as expressive of a system may be plausibly interpreted as asserting the radical immanence of God in the particular things. The central notion will be “particular thing” (*res*). The things will be regarded from two points of view, that of *natura naturans* and *natura naturata*. These two aspects will be equivalent to the infinite and the finite God. In the system they will be ontologically on

par. This status would make it natural that the finite God, and therefore also the finite substance, were defined after definition 6 (of the infinite God), at the head of part I.

It is largely accepted among Spinoza scholars that Spinoza adhered to some sort of "nominalism." The principle of radical immanence is only tenable, as far as I can see, if combined with a radical form of nominalism. If something has two aspects, only one thing *exists*, but we may need *to talk* about aspects or sides as if they existed independently. A particular coin has two faces, two sides, but there exists only the one coin.

We need to talk about extension, but there exist only particular extended things. The radical nominalism I intend to apply to the text includes nominalism of universals: one may form a class "human beings," but only as a shorthand for a pretended list of all particular human beings.

It is tempting from a certain nominalistic point of view to identify *natura naturata* with the class of particular things and to limit (real) existence to them. One remains closer to the text, however, by taking *natura naturans* as an aspect of the particular things, which all have in common, and *natura naturata* as an aspect that separates each thing from all others. The aspects may be given various names in addition to the above: the substance and the mode aspect, the in-itself (*in se*) and the in-another (*in alio*) aspect, the active and the passive aspect, the self-determined and the other-determined aspect.

The term *aspect* is one of the vaguest, but also the most unpretentious term that can be used in a preliminary characterization of the relation of the finite to the infinite God of Spinoza. The aspects do not exist (separately), but they are there. It is tempting to introduce a consistent terminology at this point, saying that the particular things *exist* whereas the aspects (and other entities on the conceptual level) *intentionally are*. The former have nonintentional existence; the latter, intentional being.

If we use this terminology, *Deus*, both as *infinitus* and non-*infinitus* is, but does not exist. The same holds for substance, attribute, and mode. They all have being, but not existence.

Today, such a distinction may be understood if introduced when one explains geometry. Circular things with a certain, somewhat variable ratio between radius and circumference *exist*, whereas π *is*. All the relations asserted in pure Euclidean geometry *are*, but none exists.

One may speculate about how Spinoza would differentiate verbal utterances that are adequate expressions of the first, the second, and the third kinds of cognition. Perhaps only cognitions of the second kind may be *adequately* expressed verbally. The language would primarily reflect relational insights. The following hypothesis seems to be promising: the language of the *Ethics* is formed to express rational insights, not the particular insights of the third, intuitive mode of cognition. The terminology of the *Ethics*, including terms such as *Deus* and *natura*, should then be looked upon as an instrument for introducing the contemporary reader to a philosophy not entirely dependent on that terminology. The third, and highest, form of cognition is, in this case, not dependent upon the terminology. Perhaps one might even say that the particular intuitive cognitions of the third kind are not adequately expressible through that terminology, or any other.

Conclusion: the terminology of the *Ethics* should be taken as the adequate expression of Spinoza's intuitions.

The immanence of God in human beings is well expressed in IVP4Dem: "The power through which singular things, and consequently human beings, conserve their being, is God's and Nature's power itself . . . , not as infinite, but as it can be explicated through the actual human essence." In the *Treatise on Theology and Politics*, chapter 1, we read, "Our mind . . . contains God's nature objectively in itself, and partakes in it."

In parts IV and V of the *Ethics*, Spinoza introduces gradualist terms of power, freedom, and other basic notions. This lends itself to a gradualist view of "being in itself," "being self-determined," and other predicates expressing the divine component of particular things. The road to freedom is the road toward a maximum of the divine component.

It is my contention that the introduction of the finite God on a par with the infinite opens a way today for understanding a system expressed, but not necessarily intended, by the text of the *Ethics*, and that it may justifiably be termed Spinozist.

Through Spinoza to Mahāyāna Buddhism or Through Mahāyāna Buddhism to Spinoza?

The increased interest in meditation and Mahāyāna Buddhism has resulted in a search for a philosophy that might be understandable in the West and reflect basic insights of the East. A philosophy inspired by Spinoza may be the answer—or one answer.

Jon Wetlesen (1978) has explored this possibility with great acumen. There are, however, pitfalls of interpretation and construction: one may make Spinoza too much the Buddhist or Buddhism too Spinozistic. I do not mean to suggest that this necessarily detracts from the value of the resulting edifice. The comparison of Buddhist versions of Spinoza and Spinozistic versions of Buddhism may lead us nearer to truth.

The Buddhist conceptions of a temporal, instantaneous, or absolute freedom may well be valid, but they do not render the gradualist conceptions less important for life. Sudden enlightenment of great depth must be anchored in a mature, integrated personality, and this entity takes a long time and intensive action to develop.

The distinction between external and internal action is fruitful, but a high level of activeness (causedness through oneself) is possible, and is needed to reach high levels of freedom (understanding, perfection).

The very conception of understanding in the *Ethics* points toward cognition-as-acts in a physical and social environment. Whatever the heuristic and cognitive value of meditation, insight for Spinoza is always

This article was reprinted with permission from *Spinoza's Philosophy of Man: Proceedings of the Scandinavian Spinoza Symposium 1977*, edited by Jon Wetlesen (Oslo: Universitetsforlaget, 1978), 136–58.

insight expressed through an action, a “grasping” (the “lambano-logical” point of view).

Spinoza Between East and West

The practice of meditation has increased by leaps and bounds in the materially rich Western industrial states in recent years. The teachers are on the whole from the East and are exponents of Eastern metaphysical theories. The attitude toward theorizing of those interested in the practice of meditation tends to be rather ambivalent—and for good reasons, as far as I can understand. The amount of woolly, talkative spirituality is staggering, and some excellent teachers of meditation may well be incompetent as exponents of classical Eastern metaphysics.

Persistent and serious practice of meditation, however, leads more or less inevitably to philosophical reflection. It is fortunate that in recent years an increasing number of researchers have combined deep study of the East with a thorough training in Western analytical and other trends. This means that serious practice of meditation in the West can now be combined with, and integrated into, a mature philosophical outlook that makes use of both Eastern and Western sources.

Spinoza occupies a unique position in Western academic textbook tradition. On the one hand, he is trustingly integrated into narrow Western traditions as one of the “great rationalists” of the seventeenth century. On the other hand, deep Jewish, mystical Middle Eastern influence has always been acknowledged by most specialists on Spinoza’s background. Part V of the *Ethics* represents, as far as I can understand, Middle Eastern wisdom par excellence. Spinoza fits in with Eastern traditions in a way that makes it highly unlikely that he can be completely absorbed by any of the major Western trends.

Among the contributions to a comparative study of Spinoza and Eastern traditions, the recent work of Wetlesen (1978) is in many ways outstanding. It combines a thorough knowledge of Spinoza’s system with a not inappreciable acquaintance with meditation and Mahāyāna Buddhism. The work’s greatest merit, however, is Wetlesen’s careful, explicit, and testable use of textual sources.

The result of his work is an exposition of major parts of Spinoza's philosophy that makes it a kind of Mahāyāna Buddhism in a broad sense. Or, if this is too crude a characterization, his work may be said to result in a Spinozistic system closely connected with certain central Mahāyāna texts. The Heart Sutra (*Prajñāpāramitā-hṛdaya-Sūtra*) is one of them (see Conze 1958).

Wetlesen's work is likely to be conceived as a transition from Spinoza to Mahāyāna. My comments argue for a dialectic turn back: Wetlesen furnishes a promising way of incorporating meditational practice and theory in a Spinozistic framework. Mahāyāna Buddhist texts are useful, perhaps indispensable, for this endeavor. In the end, though, the resulting *total view* will be closer to Spinoza's *Ethics* than to any Buddhist text.

Crucial for this turn back to Spinoza is my contention that Wetlesen underrates "*life* under the guidance of reason" and overrates the "tranquillity of meditation." Against "tranquillity" I propose the term *equanimity* as a more central one. Equanimity integrates internal and external balance, and shows itself in contexts of vigorous action. The mode of human nature exposed by Spinoza, as I understand him, is such that it is maximally expressed in the supremely active life—internally *and externally*, insofar as they can be distinguished at all according to Spinoza. In other words, whereas Wetlesen's Spinoza in the last analysis is markedly otherworldly and tender-minded (in the sense of William James), as I see him he combines marked this-worldly and tough-minded aspects with obvious tender-minded traits. The combination is highly precarious, but the system of Spinoza *is* highly precarious: its pretension is extreme insofar as it tries to address everything of lasting value in every major tradition, East and West, even when the values seem mutually, utterly inconsistent.

Freedom₁, Freedom₂, Adequate Cognition, and Internality

Wetlesen distinguishes two conceptions of freedom, and two ways of freedom. Freedom₁ is absolute and there is no "way" to it in the sense that it is "already there." It is the "highest" kind of freedom. Freedom₂ is relative and gradual. It takes time and effort to reach high levels of freedom₂. There is, according to Wetlesen, no continuity between these freedoms. Freedom₁ cannot develop from freedom₂. Some quotations will make his point clearer.

SPINOZA

I believe that we must distinguish between two fundamentally different ways to freedom in the philosophy of Spinoza. Borrowing from related conceptions in Indian and Chinese philosophy, especially from Mahāyāna Buddhism, I shall call these two ways the gradual and the instantaneous strategies of liberation. For the greater part, this distinction is not made explicit in Spinoza's own exposition. . . . In some crucial contexts, however, he draws the distinction explicitly. If the former contexts are read in the light of the latter, we shall have an interpretation of Spinoza's ethics of freedom along the lines that I attempt to reconstruct here.

Spinoza appears to imply a distinction between two kinds of internal freedom, one absolute, the other relative. Internal freedom of the absolute kind presupposes an intuition of oneself and other beings in nature from the viewpoint of eternity. This cognition cannot be approached through a gradual strategy, since approximation presupposes a process of time, while the viewpoint of eternity has no relation to time, but is incommensurable with it. Nor is there any need for such an approximation, as this intuition is already there, constituting the very essence of the mind. The act of becoming conscious of this can, in one perspective, be described as a sudden enlightenment. From another perspective, however, the notion of suddenness is also seen to be misleading. For the enlightened person sees that freedom, in the absolute sense, consists not in becoming something that he is not, but in being what one is from eternity. As Spinoza says in the passage above, the sage is conscious of himself, of God and of things by a certain eternal necessity. The difference between the sage and the ignorant is therefore above all a difference in self-awareness.

(Wetlesen 1978: 3–4)

One of the trends of argumentation supporting these conclusions is based on Spinoza's theory of affects:

On applying the gradual strategies of liberation, a person may counteract those passions which are evil by means of other passions which are less evil, or which are good. Still, however, these antidotes are passions, and therefore the result will not be freedom in the absolute sense, since this requires that the strategies are based on actions. From this it seems to follow that freedom in the absolute sense cannot be achieved by means of a gradual strategy. This confirms once more what I said above concerning the relation between the gradual and the instantaneous strategies. Only the latter lead to freedom in the absolute sense, and are therefore more fundamental than the gradual strategies.

(Ibid., pp. 6–7)

Another trend takes account of the “internal” character of adequate cognition:

If Spinoza’s conception of adequate cognition is related to the viewpoint of eternity in the manner I suggest, then it seems reasonable to suppose that his conceptions of action and freedom must be primarily of an internal kind. The freedom of the sage consists in his power to conserve his being in this type of adequate cognition. His conation and cognition are adequately determined from within.

(Ibid., p. 24)

The concepts freedom₁ and freedom₂ are introduced using the above conceptions of actions and adequate cognition:

When action is determined from within the way mentioned, it can be called free in an absolute sense. It is not contingent upon external conditions. It pertains to man as an eternal being. I shall call this freedom₁, and its contrary, which pertains to man as a temporal being, I shall call bondage₁.

In addition to these conceptions Spinoza appears to have recognized a second kind of freedom and bondage, which may be called relative. They pertain to man as a temporal being, and relate to the degree of autonomy or heteronomy which a person may have in relation to his external environment. I shall designate these as freedom₂ and bondage₂. They are subspecies of bondage₁.

(Ibid.)

It is important to note that Wetlesen associates externality with external environment, which includes other people, society, political institutions, and so on.

What the human condition really is, can only be understood from the viewpoint of eternity. To be ignorant of this viewpoint, is to be under bondage in the most fundamental sense, while to be aware of it, is to be internally free. This seems to be the foundation of his perennial wisdom.

(Ibid.)

It seems (anticipating some criticisms) that Wetlesen identifies the absolute freedom of Spinoza with an intuitive insight of a very special kind (*not* identical with the third kind of cognition in Spinoza’s terminology). The third kind involves interaction with the environment—for example, behavior toward friends, making a decent living, polishing lenses.

If a concrete person living in a particular society is to be characterized as *being* absolutely free, this should characterize his total life. If the crucial *insight* is an isolated mental act of a person who otherwise, that is, in regard to freedom₂, acts more or less as a slave, why should this person get the fabulous title of absolutely free? One of many basic questions is, *Does Spinoza consider it possible to be free₁ without being on a high level of freedom₂*? If so, why call freedom₁ a *higher* freedom? What is particularly high in a person living like a slave? On the other hand, if freedom is indispensable, it takes time and effort to reach freedom₁. Essential to Wetlesen's *definitions*, however, is that freedom₁ is there all the time, that is, even at a very low level of freedom₂.

Put crudely, I doubt that Spinoza would accept any ideal or model of a free human being that is consistent with a low degree of freedom₂. His description of people on a low level of freedom, his "slaves of passion," tyrants, people reacting with hatred, without generosity, and so on, does not suggest that he would call them free in *any* sense. Or if he would do so, he would mean a potential, not actualized freedom.

Equanimity or Tranquillity?

The equanimity characterizing the free human being may be conceived either in terms of meditative tranquillity or as a basic steadiness in the face of the external strains and stresses of an active life. For example, a statesman (like Johan de Witt), a leader of an expedition through the jungle (like Livingston), or a *karmayogi* like Gandhi may have a high or a low degree of equanimity in "external action." Does Spinoza think of the sage as a meditative rather than a socially and otherwise active person? Wetlesen's interpretation goes in the first direction. I shall *argue* for the latter but not dogmatically assert its greater historical accuracy or correctness. The interpretation of Spinoza is an endless task.

My main argument is, paradoxically enough, inspired by the same variety of Mahāyāna Buddhism as is Wetlesen's: the teaching that the farther along the path to supreme levels of freedom a human being proceeds, the greater the identification and compassion and therefore the greater the effort to help others along the same path. This implies activity of social and political relevance. Gandhi, considering Buddhism to be a reformed Hin-

duism, furnishes a good example. His mistakes were many, but he tried through meditation of sorts (combined with fasting) to improve the quality of his action, especially his consistency in maintaining a broad and lofty perspective. He deplored the followers in his ashrams who spurned outward action and concentrated on metaphysics, meditation, and fasting. He conceived that as a kind of spiritual egotism. He did not recognize yoga meditation and prayer as an *adequate* way to insight, perfection, and freedom. Advance toward the highest levels requires interaction with the terrifying complexities of social life.

It is not against anything in the *Ethics* to suppose that *understanding acts*, cognitions internally joined with active affects and constituting interactions between body and environment (under the attribute of extension), are complex and comprehensive, like gestalts of higher order. Examples are highly complex projects such as writing the *Ethics*, preserving and deepening friendships, acting as a mentor or guru, administering a large monastery. As to the last gestalt, see the in-many-ways instructive *Born in Tibet*, by Chögyam Trungpa (1971).

If carried out in the spirit of eternity, the high level of “external” activity necessarily differs from that of a busybody. Retreats and meditation *may* be necessary in some cases, but this does not imply *tranquillity*, only concentration and equanimity. Wetlesen writes in a slightly different vein, it seems:

In the first place, it seems to be necessary for the person to be able to arrange his life in such a manner that he achieves certain periods of contemplative tranquillity. This, I believe, is implied by 5P10:

5P10

As long as we are not agitated by affects which are contrary to our nature do we have the power of ordering and connecting the affections of the body according to the order of the intellect.

Actually, two conditions are involved here: The person must achieve tranquillity in the sense of not being agitated by those affects which are contrary to his nature; and he must be able to understand things according to the order of the intellect. The first of these conditions requires, I suppose, that certain periods of seclusion must be set off for interior recollection, these being perhaps what we might call a sober type of mystical contemplation. At any rate, it will not do to be a busybody all the time. A certain detachment from temporal concerns is required now and again.

(Wetlesen 1978: 377)

All this may be reasonable from a *pedagogical* point of view, as good advice from a guru. It will not do to be a busybody *anytime*. Activeness in the sense of Spinoza, however, requires integration and concentration, not tranquillity. Gandhi prayed and meditated even during hectic political meetings.

Spinoza's theory of the second and third kinds of cognition does not rule out the person's ability to uphold the point of view of reason and of eternity when acting "externally" in a social environment. Ideally the "free man" may do this *without* retreats to meditation and social isolation. My point is one of principle, not at all meant to weaken the pedagogical importance of these interludes or what Wetlesen would call the strategy of retreats and meditation. These are means, however, not ultimate needs.

The Complexity of Intuition

Freedom₁ is adequate intuition of oneself and other beings in nature from the viewpoint of eternity as appears earlier in this article. More explicitly, "the highest freedom consists in an adequate cognition of man's own essence and existence through the essence and existence of God as his immanent cause."

Even if this insight is intuitive and in a sense eternal (which is difficult to grasp and convey in discursive, argumentative thought and articulation), I cannot see how it is something instantaneous. It is an extremely complex intuition, and we know from personal insights that such intuitions have a depth dimension.

Our first acquaintance with irrational numbers or Godel's theorem makes us perhaps use correctly some definitions and makes us capable of solving certain problems, but our depth of intention improves only slowly over years of study. There is an abyss of depth in everything fundamental. Moreover, structure persists even if we have the feeling of touching something absolutely simple.

My conclusion is clear: I cannot believe in the instantaneity of the intuition of freedom₁, nor in its lack of an improvable depth dimension.

Internality Implied by Absoluteness: Totality and Part

The requirement to act *in the strictest sense* from the laws of one's own nature, *only*, or to be *completely internally* caused seems to be satisfied only by God.¹

As Wetlesen (1978: 30) points out, however, Spinoza certainly admits that some human beings are freer than others:

Should we conclude, then, that according to Spinoza, *freedom* is beyond the reach of man, and that it is the privilege of God alone? In a certain sense, this may well be what he means. Nevertheless, it must be interpreted in the light of other passages where Spinoza positively affirms that men may be *free*. I have already quoted 5P42Sch, where he contrasts the sage and the ignorant, and implies that the former enjoys freedom of mind. In 4P37Sch he draws a similar contrast between the truly virtuous and the impotent person, and in 4P66Sch between the free person and the slave.

Wetlesen adds a number of other quotations from the *Ethics*. I think one may safely assume that Spinoza thinks there are comparatively free human beings. Are there, however, *absolutely* free human beings? Yes, concludes Wetlesen. The argumentation is complex and precarious. It calls for somewhat extensive quotations.

God is absolutely infinite, and as a consequence is present in all his effects, and equally present in parts and wholes (cp. 2P45Dem, 46Dem).

For this reason the singular things in *natura naturata* cannot be separate substances. They are not really distinct from each other, but only modally; internally they are related to one another through their common immanent cause, God. In so far as a singular mode, such as a human being, cognizes himself and other modes in this manner, can he be absolutely free.

(Wetlesen 1978: 31)

One of the decisive points in this difficult argumentation seems to be that God expresses himself *totally* in every part or mode. “Totality” is also decisive in the following elaboration:

And when a singular mode is cognized through God as its adequate cause in this way, it is adequately cognized. This cognition embraces in one single grasp, as it were, the totality of those causes which generate the thing. Through this cognition a person can be said to internalize the immanent causality of God, and thereby to participate in the absolute freedom of God. . . .

Spinoza’s philosophy should therefore be considered as panentheistic, rather than pantheistic. However, in so far as a human being cognizes himself and other modes through their first cause, and sees that this is an immanent and free cause, and that it is infinite, eternal, and indivisible, he feels and experiences

SPINOZA

that this cause is totally present in himself, and equally present in the parts and in the whole of himself, and consequently he participates in its freedom.

(Wetlesen 1978: 32)

This freedom is absolute, but according to Spinoza, God does not share it with the modes—in spite of his immanence. We are therefore not closer to Wetlesen's freedom₁ in spite of his important interpretation of totality.

Gradual Approach Necessary in Life

Wetlesen is, of course, aware of 4P4:

It cannot happen that a man should not be a part of nature, and that he should be able to suffer no changes save those which can be understood through his nature alone, and of which he is the adequate cause.

(Quoted in *ibid.*, p. 29)

If this is so, how can a human being be an absolutely *sole* cause of an action and a result of the action? Wetlesen uses his distinction between internal and external effects:

For even though it is impossible for a person to be an adequate cause of an external effect, he may be so of an internal effect. In that case the effect is internally determined by the nature of the agent, in so far as his nature is internally determined by God (cf. 5P30&Dem, 31&Dem). As Spinoza says in 4P68Sch, this may take place “in so far as we regard human nature alone or rather God, not in so far as he is infinite, but only in so far as he is the cause of man's existence.” We should read this in the light of 2P45Sch: “For although each singular thing is determined by another singular thing to exist in a certain manner, yet the force by which each of them perseveres in its existence follows from the eternal necessity of the nature of God (see 1P24Cor).”

(*Ibid.*, pp. 32–33)

It seems that *a person*, according to Wetlesen, may remain in a state of absolute freedom provided all his acts are internal:

What kind of effects is it that such a free person can produce? I have already suggested that these effects must be purely internal, but what do they consist of? The answer, I believe, is to be found in this direction: If a person *cognizes* himself and all things adequately through God as the adequate and internal

cause, then the person will have a power to determine his further cognitions in such a way that they maintain themselves on this adequate level (2P40, 5P41&Dem). This cognition, moreover, will engender active affects, such as the intellectual love towards God (5P20Dem, 32Cor, 33Sch, 36Sch), and these active affects will be sufficiently strong to counteract the passions, and thereby to liberate the person from his bondage (4P20Sch, 38, 40, 42). I quote:

5P20Sch

From all this we easily conceive what is the power which clear and distinct cognition, and especially that third kind of cognition (2P47) whose foundation is the very cognition of God, can do with the affects, namely, that if it does not remove them entirely in so far as they are passions (5P3, 4Sch), at least it brings it about that they constitute the smallest part of the mind (5P14). Moreover, it begets a love towards an immutable and eternal thing (5P15) of which we are in truth partakers (2P45), and which therefore cannot be debased by the vices which are in common love, but which can always become greater and greater (5P15), and occupy the greatest part of the mind (5P16) and deeply affect it.

(Ibid., p. 33)

The quotation from Spinoza and the interpretation by Wetlesen confirm, as far as I can see, that a person can *reach* a continuous level of absolute freedom only gradually, turning passive affects into active. There is an ambiguity here: something is instantaneous and the person “has” it all the time, even if not aware of it, but there is also something that is gained gradually—I would say: gained through gain in freedom₂.

Let us study the terminology in the following conclusion:

From the interpretation set forth here we may conclude, then, that absolute freedom is possible for man, but only to the extent that his actions have internal causes as well as internal effects. This is a complete self-determination, and therefore a freedom of the type which I call freedom₁.

(Ibid., p. 34)

Seen from noneternal points of view, a person lives in time, and to say about a person that he or she is absolutely free would mean that he or she *remains* on a level of absolute freedom whatever the cognitions required. But some actions certainly have external causes or effects. Therefore, a person cannot be absolutely free. On the other hand, a person may maximize purely internal actions, and thus we get a graded notion of absolute freedom. In the terminology of Wetlesen, we would add to the last quotation:

A person increases his or her level of attainment of freedom₁ if, and only if, the extent to which his or her actions have internal causes and effects, increases.

Here freedom₁ *as a concept* is not subjected to grading, but a person's *attainment* of freedom₁. The latter is the more important if we wish to *gain* freedom.

The impossibility of the gradual approach as a *sufficient* strategy to reach absolute freedom should be distinguished from the possibility that such an approach is a hindrance to reaching freedom₁. Wetlesen seems to think that a person who strives to reach higher levels of freedom₂ ipso facto cannot reach freedom₁. The person must stop trying! This might be good Buddhism, but is it good Spinozism?

[W]e may conclude that as long as a person strives to attain the ideals of his imagination, he will fail to attain freedom in the absolute sense. It makes no difference what kind of ideal he holds up for himself. . . . However, as long as a person adopts such an exemplary model as an end to be achieved in the future, he will be bound to a process of time. He may be freedom-bound, perfection-bound, intellect-bound, love-bound, and so forth; but in any case he will be time-bound. Therefore he will not be free in the absolute sense defined in 1D7, since that requires emancipation from time-binding.

(Wetlesen 1978: 388)

If previous comments are tenable, the likelihood that a person reaches conscious freedom₁ *increases* with increasing level of freedom₂. There are no purely internal actions—the mind is not a container of acts; all acts are explicitly or implicitly environmental. At least, I cannot see how Wetlesen has succeeded in establishing his concept of purely internal acts.

It seems that Wetlesen has not always distinguished conceptual problems from life problems where that needs to be done. Personal problems are always “in time,” and therefore also *applications* of any concepts whatsoever to persons. The concept of eternity must be kept distinct from the criteria for determining whether a person *has* attained the viewpoint of eternity and *when*. It must also be distinguished from the criteria for determining to what extent this viewpoint has been attained. However, all this need not affect the *concept* of eternity. The concept can be retained in its nongraduated form.

Suppose a person has maximally attained the viewpoint of eternity. He

or she will nevertheless, if a *karmayogi* or a bodhisattva, act, with increasing understanding, in the temporal environment and thus carry out cognitions in part based upon the activity of the imagination.

Perhaps this is completely in agreement with Wetlesen's conceptions, but then the above quotation from his work is misleading.

Absolute Freedom Through Cognition Only of Our Own Mind; Closeness of Mind to God

From this closeness of mind to God, Wetlesen proceeds to argue for freedom or even salvation through cognition of oneself alone:

The highest freedom of man, which is nothing else than his salvation, consists in an adequate cognition of his own essence and existence through the essence and existence of God as his immanent cause (cp. 5P36Sch).

(Ibid., p. 75)

The evidence of 5P36Sch does not corroborate Wetlesen's thesis very strongly. Adequate cognition of one's own essence and existence is a time-consuming thing. We have to understand our passions and transform them into active emotions like generosity toward those who hate us.

It is no easy affair even to find out that an affect we have is not active, but passive. One of the ways is orthodox psychoanalysis. It is not possible, or only very rarely possible, to carry through such an analysis alone. There are other methods, but no shortcuts, it seems. God has *not* provided shortcuts. Wetlesen's strategy of attainment of freedom₁ is said to be instantaneous, but it seems to imply that we arrive gradually and painfully at a clearer and clearer understanding of more and more of our affects. It is not done in a general way, but with each affect taken separately. Wetlesen cites

Spinoza's ways of formulating the first two remedies against the passions, which he summarizes in 5P20Sch. The first step consists in this:

5P20Sch

It appears from this that the power of the mind over the affects consists:

1. In the cognition itself of the affects (5P4Sch).

That is to say, it consists in a reflection on the cognitive and affective acts, thereby forming a clear and distinct idea of them. The second step, moreover, is described in this way:

5P2oSch

2. In the separation by the mind of the affects from the thought of an external cause, which we imagine confusedly (5P2 and 4Sch).

When cognitive objects, as well as their affective coloring, are seen in this way, they are no longer hypostasized as external ontological realities, that is to say, they are not assumed to be transcendent things, but are seen to be projected by the consciousness itself. Furthermore, they may be understood through their immanent and adequate causes, and thereby cognized adequately. At this point, however, we move away from the phenomenological attitude of Husserl and into the ontological attitude of Spinoza. But this kind of ontology has nothing to do with the assumption of external objects. It consists in seeing all modes as the effects of the immanent causality of God. When a person has attained this degree of self-knowledge, his faculty of imagination is free, as Spinoza says in 2P17Sch. It then depends on his own nature alone. He lives entirely in this immanent field of his transcendental consciousness, as Husserl would say. He is mindful that his life-world is constituted through his own imaginations and affects, and through this awareness he neutralizes the binding effect of his own projections, thus remaining internally free.

(Wetlesen 1978: 361–62)

What is not convincing is that the “seeing *all modes* as the effects of the immanent causality of God” (my italics) can constitute one single set of seeing. What about our own passions, race prejudices, ambition of understanding Spinoza? We certainly do not have the ability instantaneously to understand *each* of the passive affects so that we get a clear picture of their origins—and not just a *general notion* of their dependence on natural laws and God as their immanent cause. Spinoza scarcely recognizes *general* knowledge of passions as a liberating force. Passions as “confused ideas” are not turned into clear ones wholesale. This implies gradual, not instantaneous freedom. The belief in sudden, definitive illumination of the life-world (*Lebenswelt*) goes against the realism of Spinoza and his critical attitude toward revelation in religion and otherwise.

Enlightenment Happens in Time, but Does Not Develop out of Nonfreedom

The instantaneity of absolute freedom gets to be somewhat mystical in a bad sense if we cannot say that a person attained it or attained conscious-

ness of it at a definite time or within a definite time interval, for example “sometime between ages x and y .”

[W]e must beware of not construing the transition from bondage to freedom as a transition from inadequate cognition and passive affects to adequate cognition and active affects as if the latter emerged at a certain moment of time. For it is impossible that the latter could develop out of the former (cp. 2P41 and 5P28, together with 3P1 and 3). If adequate cognition and active affects can be actualized in a person at all, they must be potentially there from the beginning.

(Ibid., p. 389)

That something develops *out of* something else is a much stronger assertion than that the one was a necessary condition of the other. Beethoven’s music was a kind of necessary condition for Schubert’s music, but genuinely new things are present in the latter. One cannot say that what Schubert did developed *out of* what Beethoven did. Adequate cognition of something may emerge *after* degrees of inadequate cognition “of the same,” and thus be fixed in the time order, without our assuming that the adequate *developed out of* the inadequate, like an adult from its imago.

A person undergoes development in time. There is a transition from one phase to another. New traits form; old ones vanish. One kind of transition is from a lower to a higher level of perfection; it is at the same time a transition to a higher level of freedom. This transition is also a transition to more adequate cognition and more active affects.²

We cannot understand the development of a person except by taking into account many parts of the body and many parts of the mind, and only when considering the person as a part or fragment of Nature. Thus, I agree that adequate knowledge does not develop *out of* inadequate. The further inferences made by Wetlesen on the basis of this insight seem unwarranted, however.

Writing about the absolute freedom to an audience that has not attained, or is not conscious of, absolute freedom presupposes that attainment of such (conscious) freedom *happens to a person*—that is, can be fixed in time. This does not exclude that the writer and the audience later agree that the time dimension is irrelevant or unreal. Having attained and retained that view, they are then clearer about the view of eternity. This state of affairs cannot be anticipated, however.

In the following passage Wetlesen makes a concession, it seems, in the direction of the above remarks.

So also may the viewpoint of eternity suddenly break forth to the conscious awareness of the mind, calm and clear, when the hindrances are removed.

When this enlightenment has been attained, the person will know that in reality, and from eternity, he is free in the absolute sense. His freedom, in this sense, is an eternal truth and absolute necessity. However, if this be so, then it implies that he must reevaluate his former conceptions about himself and about the human condition in general with regard to bondage and freedom, as well as the transition from the one to the other. . . . In so far as he cognizes the whole situation adequately from the viewpoint of eternity, he knows that his portrait of himself, as presented by the imagination and the memory, in a certain sense is an illusion. It does not tell what he really is, and is nothing but a mode of cognition, or an entity of the imagination.

(Wetlesen 1978: 390–91)

The viewpoint of eternity “may suddenly break forth,” that is, sometime *within* the time order. When this viewpoint gets to be conscious, the biography of the enlightened person looks quite different. This can be understood. The points of reference will be different—“all” will be different. It might be compared to what happens after a religious conversion, or when a person rather suddenly moves from communism to anticommunism (Koestler and others). I think it is important to concede this, and to stress *discontinuity*. There is a “jump” in the Kierkegaardian sense, or in a sense related to his.

All this may be conceded. Its relation, however, to Spinoza’s conception of freedom remains unclear—unclear, to me, both in the use of the term *absolute freedom* and in its status as “higher” than any freedom attained gradually. The formulation “The person *P* is eternally, absolutely free and has never been otherwise” is an unhappy one outside Buddhism. The quotations from Spinoza that Wetlesen uses to support such a formulation are compatible with the decision to leave it out. 5P31Sch is compatible with the theory of gradual enlightenment:

The stronger every one is in this kind of cognition, the more he is conscious (*conscius*) of himself and of God, that is to say, the more perfect and blessed he is, which will appear still more clearly from the following. Here, however, it is to be observed that although we are now certain that the mind is eternal in so

far as it conceives things from the viewpoint of eternity, yet, in order that what we wish to prove may be more easily explained and better understood, we shall consider the mind, as we have hitherto done, as if it had just begun to be (*tanquam jam inciperet esse*), and had just begun to understand things from the viewpoint of eternity. This we can do without any risk of error, provided only we are careful to conclude nothing except from clear premises.

(Quoted in *ibid.*, p. 391)

Conclusion: the absolute freedom₁ is foreign to Spinoza's system.

Wide and Narrow Concepts of Grading

The distinction between graded and ungraded calls for some clarification. A grading *need not be continuous*. Hardness of minerals is graded—for example, “scratchable with a fingernail,” “scratchable with a steel knife,” “scratchable with a diamond.” A person may be said to gain in rationality when he or she behaves rationally in more kinds of life situations, and is less rational in none. There is not, however, a continuous transition from one situation to another, from one behavior to another, or from an inadequate cognition to another inadequate one, or to an adequate one. There may be abrupt changes, wild leaps. Nevertheless, a person may be said to develop and change gradually. The transition may be discontinuous and there may be only two grades.

Either a cognition is adequate, that is, complete, or it is inadequate, that is, incomplete or not complete. If absolute freedom is correlated with adequate cognition, and its contrary with inadequate cognition, it would seem to follow that the distinction between freedom and bondage must also be dichotomous.

(*Ibid.*, p. 395)

Here it seems that Wetlesen does not distinguish between conceptual relations and life relations. A conceptual dichotomy does not itself permit grading—this is true by definition—but as soon as it is asked *to what extent* a person cognizes adequately or inadequately, a grading is possible. Spinoza uses grading, this in spite of a rigid nongradual distinction between adequate and not adequate. There is also a place for grading the clarity, depth, and other characteristics of *an act of* adequate cognition. Grading is accepted here by Wetlesen himself:

SPINOZA

[I]t may be possible for a person to be more or less conscious of the adequate cognition which constitutes the essence of his mind from eternity.

. . . we may speak of degrees of freedom₁ after all, these degrees being in a one-to-one correspondence with the clarity of the conscious awareness which the mind *has* of the adequate cognition which it from eternity *is*.

(Wetlesen 1978: 395–96)

In his argumentation, however, Wetlesen sometimes tends to adopt or imply narrow conceptions of grading. For example, in the following quotation grading seems to imply a quantitative element. Grading, though, is an ordering of qualities. Wetlesen himself says that freedom₁ is *higher than* freedom₂. The distinction between first, second, and third kinds of knowledge involves (among other things) a grading. About the third, Wetlesen says:

However, not all persons are conscious of it, and those who are, do not have an equally clear and distinct idea of it. This degree of conscious awareness and clarity brings in a quantitative element, which makes it possible to talk about degrees of freedom after all. However, in this latter case we talk about degrees of freedom₂, and not about degrees of absolute freedom, which would sound rather queer in any case.

(Ibid., p. 396)

What Wetlesen says here about gradual strategies suits a rather narrow concept: a “quantitative element” makes it possible to talk about degrees. In part because of his tendency to associate degrees with quantification, he attributes negative characteristics to the “gradual strategy of liberation.” Such strategies, however, require *wide* concepts of grading, concepts in which discontinuities are not excluded. Higher levels of understanding do not develop “out of” the lower. New qualities appear abruptly.³

Spinoza’s Way and Buddhist Meditation

Wetlesen establishes some important parallels between Spinoza and Buddhism:

As mentioned earlier, it appears that Spinoza’s chief remedy against the passions (cp. 5P4Sch quoted above) has a close affinity to Buddhist insight meditation (*vipassanā-bhāvanā*). Like insight meditation it starts with a certain

kind of mindfulness or awareness; it goes on to a particular kind of insight concerning the ontological status of external things, and culminates in that kind of adequate cognition, or wisdom, which alone can liberate a person in the absolute sense.

I believe the first of these points is brought out quite clearly in 5P3&Dem&Cor and 5P4:

5P3&Dem&Cor

An affect which is a passion ceases to be a passion as soon as we form a clear and distinct idea of it.

An affect which is a passion is a confused idea (3AffGenD). If, therefore, we form a clear and distinct idea of this affect, the idea will not be distinguished from this affect, except by reason, in so far as the affect is referred to the mind alone (2P21&Sch), and therefore (3P3) the affect will cease to be a passion.

The better we are aware of an affect (*quo nobis est notior*), the more it is within our power, and the less the mind suffers from it.

5P4

There is no affection of the body of which we cannot form some clear and distinct conception.

The second point I think is brought out in 5P2, which I quoted at the beginning of this section [ibid., p. 198].

If a person clearly and distinctly sees that his perceptions of things and egos in his life world are projections of his own imagination, he will develop what the Buddhists call insight, namely insight into the impermanence of things (*anicca*) and the unsubstantiality of egos (*anattā*). Thereby he overcomes the ignorance (*avijjā*) which was a necessary condition for his bondage under the passions (*dukkha*), and attains freedom instead.

(Ibid., pp. 198–99)

So far as I can see, Spinoza *can* plausibly be interpreted as Wetlesen suggests. It is an important, worthwhile interpretation. It makes it possible to accommodate central parts of Buddhist theory and practice within a philosophical framework keenly studied in the West (cf. ibid., p. 200).

In fairness to Buddhist traditions we must keep in mind that they contain a rich variety of conceptions, and that we are here dealing with only one.

What I am now going to say is not an argument against Wetlesen's interpretation, but an alternative.

The work required to get "a clear and distinct idea of a passion" may be, and has been, conceived as an analysis of the kind worked out by Freud

and later “depth” psychologists. At least so much is established, that for a person to get a deep insight into an affective-cognitive complex acquired in infancy is extremely difficult and takes a long time. The trust in substantial egos and permanent things is acquired in infancy. The Buddhist theory of nonsubstantiality (as interpreted by Wetlesen) undermines or destroys conceptual frameworks acquired in infancy. So, it seems very strange, from the point of view of psychology, that any kind of *instantaneous* clearness could be brought about. More likely, there may be a gradual and partial elucidation of passions. This does not preclude that a high degree of clearness may all of a sudden break through the barriers to invade consciousness. We know of such happenings from the study of religious conversion. (Deception is, however, more frequent than genuine sudden change of personality.)

What insight meditation might bring about is a sudden, fundamental change of *the general conscious, abstract conception of the world and the ego*. The particular cognitive-conative complexes are largely left as they are, but they are somehow seen at a distance even in the personal interactions of the sage with his disciples and the community. Spinoza *may* be interpreted in harmony with this—but it strikes me as unlikely that *any* change in the abstract *conception* of the world and the ego can permanently change the person. We have to observe behavior and attitudes during work in the community. The new conception may be an inspiration and a source of strong motivation, but it would normally take years, I think, to change the structure of the interaction between person and environment. Human beings cannot, however, gain deep conceptions independently of such structures. We show our most genuine conceptions in action. The rest is likely to be dishonest or superficial.

The levels of freedom in the sense of Spinoza have to do with a multiplicity of like relations. Whatever the intensity and depth of an instantaneous experience, one’s genuine conceptions change only gradually.

Absolute freedom is possible to the extent that one’s actions have *internal* causes and *internal* effects, according to Wetlesen. Interaction with the environment continues as before, however, or with even more pervasive external causes and effects if the sage gets a worldwide following. Spinoza’s idea of disconnecting passions from external objects does not entail a kind

of life within the self. The status of self is precarious anyhow, both for Spinoza and for Mahāyāna Buddhism.

Concluding Remarks

The many theses or hypotheses put forth by Wetlesen are supported explicitly through careful references to the works of Spinoza and others. A serious attempt to maintain opposite views ought to use the same excellent technique.

The foregoing has not consistently been such an attempt. It has the aim to make some of the hypotheses better known and to suggest alternative interpretations.

The supremely free human being according to Wetlesen's Spinoza is one of introvert tranquillity. The foregoing comments favor an activist interpretation: the free human being is a wise human being permanently and with increasing momentum on the road to still higher levels of freedom. The supremely free shows perfect equanimity, forceful, rich, and deep affects, and is active in a great varieties of ways, corresponding to the many "parts of the body," and all of them bound up with increasing understanding—and certainly including social and political acts.

Meditative tranquillity may be one of the free human being's methods for getting freer, but not a stable characteristic of his or her life.

This image of the sage has in common with (a certain variety of) Mahāyāna Buddhism the idea that the higher the level of freedom reached by an individual, the more difficult it becomes to increase the level without increasing that of all other beings, human and nonhuman. The obstacle to individualistic freedom is deep-seated solidarity. It again rests on identification with all beings. The individual self develops into the universal self. (In general "relationism," the term *self* can, and ought to, be avoided.)

The trend of reasoning pursued by Wetlesen leads also toward Mahāyāna Buddhism in the sense that the highest freedom cannot be a lonely freedom, or rather, it is not a freedom that can be reached going alone, and consummated alone. What I am objecting to is the conception of an absolute instantaneous freedom that is supposed to be *higher* than the freedom

SPINOZA

of the wise human being supremely active through a development reached not without painful labor and danger.

I wish to add to this conclusion that various methods of meditation developed within Mahāyāna Buddhism might be accounted for within the framework of a Spinozistic philosophy. Considering the growing appreciation of serious meditational practices in the West, the possibility of conceiving them within the broad and deep framework of such a philosophy must be greeted with joy.

Deep Ecology and Education: A Conversation with Arne Naess

Is deep ecology primarily about asking philosophically “deeper” questions, questions about one’s most fundamental beliefs, or is it about achieving ecocentrism or some other ecological goals?

Arne Naess: To ask deep questions is evidently not enough. As a supporter of the deep ecology movement, you have to go deep in your questioning, to what for you are the deepest beliefs. That is a necessary, but not a sufficient, condition of being a supporter of the deep ecology movement. What we see is that from the deepest premises some people derive the eight points, or key principles, of the movement. Others derive unecological consequences.

We have seen throughout the history of philosophy very deep questioning that, in my opinion, goes in the wrong direction. Thomas Hobbes, the great British philosopher, for example, did very deep questioning that led, from a deep ecology point of view, to very bad conclusions—consistent materialism and authoritarian political views. So there is no problem in the deep ecology movement about this. You have to ask a supporter to have some kind of life-lust, some kind of philosophical or religious premises. So that’s clear—go deep, but that’s not enough.

This interview was reprinted with permission from the *Canadian Journal of Environmental Education* 5 (2000): 48–62. Conducted by Bob Jickling, editor of the *Canadian Journal of Environmental Education*, it is based on conversations with Professor Naess held in Oslo May 29–30, 1998, and February 23, 2000.

If our task as philosophers and/or educators is to help people develop an environmental philosophy of their own, then must we accept the risk that they might come to conclusions we may regard as unsound?

AN: Sure. We may say, All right, these are your basic premises, these are your highest priorities, and from these you draw such and such consequences, but I'm afraid some of these consequences are not good, and I strongly object.

In spite of the disagreement, there are two different ways of going on with the dialogue. One is to question whether we have really derived consequences we ought to derive from our premises. The other is to see what can be modified: "Could you modify the formulation of your basic views?" Then you make a suggestion about the basic premise: "Could you agree to formulate the premise a little differently?" Then you try to be helpful in seeing different possibilities of interpretation of what he or she is saying. Before you simply say "We disagree fundamentally" or "We disagree about the consequences," go on with the dialogue.

So your emphasis as a teacher would then be in helping the students examine their premises and subsequent consequences—helping the students to clarify their thinking at each level?

AN: Exactly. That's right, to help these students articulate how they feel. There is a kind of endless process going on within our societies and between different societies. We may conclude after many discussions that there are some real differences of opinion among us. Then you have to find some basis for peaceful coexistence. We are not going to use any violence, in communication or otherwise, but we simply disagree. And then we can add, "If we didn't disagree on anything of importance it would mean that we were getting into a kind of completely homogeneous culture, which is a terrible thing, so better really to dislike each other's position than to have no differences."

Where policies are violently unecological, invite relaxed debate on a large scale.

Perhaps the continuing evolution of environmental philosophy provides a reason to give preeminence to the deep questioning process, and to be very careful about not imposing particular formulations?

AN: Yes. I look at myself as a kind of stream—not as an ego—and the stream goes on. That doesn't mean that I am a relativist. I am a relationist. You should have a self-respect and self-confidence that you can change and admit changes. There are many people who don't have enough self-respect and self-confidence. They are a little afraid of contradicting themselves, or they identify too much with particular positions, or they feel threatened.

As a teacher I'm aware of this: I think some of my students may not have a high degree of self-respect—be careful, take plenty of time to discover their background.

I'm interested in how you see relationships between deep ecology and other formulations such as social ecology, ecofeminism, . . .

AN: We tend to specialize. With this specialization there is a tendency to feel opposites instead of feeling the complexity of the relations and complementarity. I think that the deep ecology approach includes what we think is important in the social ecology movements, and also important things in ecofeminism. We are so grateful to work with these ideas. Deep ecology supporters must acknowledge that we sometimes have a one-sided view. We sometimes underrate participation in political debate, or we are unable to have meaningful discussions with economists.

I think some students force us, through their questions, to go deeper in our own questioning.

AN: Oh yes, and there you get to questions for which there is no difference between the competence of a professor and a youngster. If you go deep enough into life philosophy, you will reach a level at which people get together, whether they are professors or schoolchildren, at the same level.

I have a lot of conviction for what I believe and I go for it; I am sure that I will not change my opinion. At the same time, though, I see the possibility of changing to the opposite opinion. I have complete confidence in myself, yet I see the possibility that the next day, after some terrible experience, I may have a different position.

Your emphasis on the deep questioning process seems to be informed by an optimistic view of human nature. How would you suggest that we deal with the barriers that fear and prejudice represent? Is deep questioning sufficient?

AN: No, discuss the consequences. With deep prejudices you must use some examples of how you would behave in a particular situation. For example, in 1935 I was climbing a little with a strong supporter of Hitler. I had some pieces of bread and I said, "This was made by a Jewish girl. See if you can eat it anyhow." Then he admitted, "Well, I do not mean that absolutely every Jewish person is a terrible so-and-so. There are exceptions." With reluctance he would then eat just a little of the bread.

You have to, if you can, get into some practical situation—you start a walk somewhere, do something together, and then—bang—you have an example: "How do you look at this?" Then you may make this person change the formulation of what he or she has seen as an absolute truth. The Hitler enthusiast could be made less dangerous, less badly informed.

That's what they were so good at, the logical empiricists in Vienna. They were very different personalities, but sometimes one would say, "Could I formulate your view a little differently?" and another would say, "No, no!" "But could we formulate it this way?" "No." "Well, how about this way?" "Yes." You see, they invited one another to propose different formulations. It means that basically they were trying to help one another; there was a kind of research attitude. Instead of calling their philosophy logical empiricism, they should have had the slogan "Research attitude." They had four theses in philosophy that I thought were not valuable, but they had the searching minds required of insightful philosophy. They had an eminent research attitude. People did not understand this and often believed that which agreed with their own philosophy.

The cynical person might say, "Well, that example didn't do very much to stop the Holocaust," but the optimist might say, "Well, there weren't enough people 'sharing their bread'" as you described in your example.

AN: It was necessary not to hide what was going on, and our duty was to talk to people who were on the wrong side. I was in Austria in 1934 and 1935. What I found was that many were just following a trend—joining the bandwagon—and expecting nothing like what ultimately happened, holocausts. When people saw that things were going very wrong, they didn't stand up as much as they should have. I said, "If some are bad then you need not talk to them, but if they are very, very bad, then you may invite them to dinner." That is Gandhian. You must not leave them.

You've written about seeking ways to live both joyously in the world and according to obligations [see, e.g., Naess 1989].

AN: Some people think that I don't have an ethic because I don't have ethics of duty, but I say that ethics of duty may ultimately be based on the ethics of fondness, empathy, and what I call some kind of positive identification with something else. If you have that, you then formulate duties, saying, Whatever the situation, this must be done in this way rather than that way. So you understand that there are some things that are duties, such as you obviously have toward children. If you take the dramatic chance of being a father or mother, then there are a lot of things that you should formulate as duties, not only what you ought to do, but what you must do.

In environmental ethics I say, Never moralize. Sweep before your own door. In a rich country like ours we do things every day that we should not do, things that are not done in a consistently ecologically sustainable way. We are all sinners. Some people are very good at certain things, others are very good at other things, and scarcely anybody is very bad in every way environmentally. You have options. I might say, "I can't be like that, you are superior there, I'm going to have this bad habit." And Gaia says, "The earth is fantastically rich; you can have some of your bad habits—but here are the limits."

Environmental education has been criticized. Some claim the problem lies in programs and curriculum materials that are not objective and not grounded in facts. You have said: "Is not the value-laden, spontaneous, and emotional realm of experience as genuine a source of knowledge of reality as mathematical physics?" (Naess 1989: 32).

AN: I think this sentence may easily be misunderstood. What I intend to say is that in spontaneous experiences, experiences that you are confronted with every moment, you have as near a relation to reality as you can have in mathematical physics.

For example, when my Chinese wife was confronted with a Norwegian waterfall, she spontaneously saw it as a tremendous water channel that had leaked—an accident—and found it rather threatening. What she spontaneously experienced is exactly at the same level of reality as my experience of beauty and greatness. Mathematical physics, or any kind of science, cannot falsify the contact of the spontaneous with the real.

This is easy to comprehend in music. You listen to the opening of Beethoven's Fifth Symphony: *da da da dab*. That makes one gestalt, one whole. Then after *da da da dab* you get *da da da dab* an octave lower, and that's another whole—one of the smallest units that you have in a symphony. And those two together—*da da da dab, da da da dab*—make a more comprehensive gestalt. However, there is always a more comprehensive gestalt, more comprehensive wholes. For example, your experience depends upon with whom you sit. If you are in love with the person sitting with you, that will change the whole symphony—really change it.

If you suddenly hear *da da da dab* on the radio, your experience has to do with the whole symphony and not with just this part. You simply cannot think of existence, as a human being, without acknowledging that kind of experience. There is nothing in science that can undermine these experiences—saying it's wrong, it's mistaken, it's subjective.

Daily life has the character of gestalts rather than separate facts. Whatever we do, we are in a unitary situation that is extremely complex, but we are never in a merely factually describable situation. It's always a value situation somehow. For example, a parking lot is seen as tremendously well made technically, but there is a question of whether we should have it. We may experience a parking lot within a whole, an emotional gestalt, as a negative on a deeper level, which leads you to say, "I feel the policy is wrong." Such a feeling is a valuable starting point. Try to articulate what you feel!

Sometimes critics dismiss elements of environmental thought, and environmental education, as subjective evaluations, sentiments.

AN: There is an underestimation of the cognitive value of feelings. What people say in favor of economic growth is sometimes highly emotional. I can't see why I should be opposed to their personal engagement in this case. We do not like to rob our antagonist of feelings. It would be terrible if I met some opponent without any feelings. We may have, for example, a great feeling about economic growth. We all have feelings for this or for that. To say that how we relate to nature is a question of feeling—that's not interesting because it's so obvious, that we are subjects. How we relate to our children and how we relate to criminality are also questions of feeling. Really, there is no valid argument against the strong feelings for—or against—nature, but we may properly ask, Why do we have those feelings?

How, then, does a teacher tell a principal or school council responsible for her school that she wants to take kids out and have them get spontaneous experience, to nurture their gestalts?

AN: Some people have hundreds of good, joyful experiences that cost nothing. In the schoolyard itself, you find a corner where there is just one little flower. You bend down — you use your body language — and you say, “Look here.” And some answer, “There is nothing there.” Then you talk a little about what you see, “This flower here, it’s not the season for it. How can it be there this late in the year? And look at it. It certainly needs a little water; it’s bending, look at the way it bends. What do you see when it’s bending like this?” I call teachers who behave like this nature gurus. It is a little more like an Eastern kind of education, more in terms of personal relations. Try to make them see things they haven’t seen before. Use your body language. Even inside the schoolyards, you find nature’s greatness.

I remember in Tokyo, our car stopped unexpectedly. I found right there no building, but a small area of “weeds,” excitingly different from those in Norway. Consequently, I had a splendid time for a whole hour inspecting the strange weeds. Conclusion: teach children to value spontaneous crazy experiences—crazy because usually one would say, “There is nothing there.”

What advice would you have for those living in urban areas? Can we connect properly with deep ecological thought in only relatively undisturbed settings?

AN: We can do it in cities. You can do it along railways, highways. Everywhere there is something that is essentially nature. You don’t see any human purpose in it. It’s there on its own—and it’s ugly or it’s beautiful—but it’s there and its complexity is unlimited. To see something where you do not need to take any stand toward a purpose, or utility, or even beauty is a good thing. Even if you go to look at an art exhibit you are constrained, you are expected to like something and dislike something else. Whereas if you look at the sky—there are a fantastically lot of different clouds in Norway—you are free, and therefore free to straighten the imagination. More and more, I look at clouds. I did it as a boy, and now at the age of eighty-eight I am getting back to clouds—changing, changing, changing. There must be much more of that in school—keeping imaginations intact.

What I say here has to do with high-level environmental education.

There is a school in which they have wonderful semesters on the environment, but they say, We must start with chemistry; we have to have the facts first! People go to those places for a whole year of environmental immersion—they are not at all motivated by chemistry. Go straight into what they are motivated about; then later you can say, Well, here we have to do a little chemistry—use the term CO_2 and so on—but as part of a whole in which you always have the basic motivation of the students in mind. When there is care for the environment all the time, then put in some physics and chemistry. If they are not very fond of physics, chemistry, and statistics, let it drip in—into something marvelous.

You say that gestalts are complex and sensitive to introspection, that application of scientific observation habits will lower gestalt abilities—reduce people's ability to see wholes—if counterforces are not introduced at an early school-age level (Naess 1989).

AN: You learn as a child that there is something called knowledge, and soon children learn about scientific knowledge as something opposed to myths and the undue influence of feelings and values. You can easily begin to overestimate the importance of scientific knowledge in a vital question, which is always also a value question. As for ecology, we have had for a long time more than enough ecological knowledge about how to mend our ways, so in some senses it is a blind alley to ask for more knowledge; wisdom is what we need. Climate research, for example, will always be hypothetical in character, but we have to say, If there is an effect, then what are the consequences? Then people sometimes think, But it is not scientifically proved. We can't verify or falsify, in a strict sense, any scientific thesis. We must be quite honest that it is always hypothetical. A theory is born, has a life, shorter or longer, and a death. So you see, we have to undermine the prestige of scientific knowledge in favor of research, and of value priority.

Can you speak about the relationship between research and the valuations that underlie scientific knowledge?

AN: You can prefer, for example, a certain kind of methodology. You value it. However, you cannot derive the value of that methodology scientifically. You can only point to examples of how it has worked in particular cases—descriptive examples. Not all questions in research are on the same level, on

this descriptive level. You make choices that are normative, and those choices cannot logically be derived from descriptions.

I'm interested in the relationship between natural history and praxis as you see it?

AN: Instead of immediately introducing the term *ecology*, you may introduce relations of human beings to nature with the historical background—not the history of humanity but history in general. You can start holistically—integrate—in a mild sense of holistically. We can ask the philosophical questions “Who am I? Where am I? What do I want?” You can talk about human relation to what is not human.

Then I wish that we would let teachers say, “How do you feel the world? How do you feel yourself?” The term *feel*. “What does this feel like?” instead of “What is this?” We immediately get feelings into the teaching. We don’t have a life of pure cognition and a life of feelings as something separate. We start with both at once, and natural history is a good place to do that. So the extensive use of *How do you feel? What do you feel?* Then you inevitably get “What should you feel?” then “What do you think you are right to feel?” and “What do you want yourself to feel?” The praxis, human practice today in the rich countries, is detestable, and many want to feel it more strongly so that they are motivated more strongly.

The developmental years, those early years of school (and before), seem crucial. This brings with it a great burden of responsibility for those who care for and teach young children.

AN: I usually say that at four years old it seems to be quite natural to have a total view, a rudimentary philosophy of life. A total view would be the kind of view that encompasses him- or herself and the world. If you could talk with a four-year-old for a long time, you could probably describe an outline of the total view of this boy or girl, a view that is still uninfluenced by schooling. We should try to investigate more what happens between four years old and ten years old. We talk about socialization—after four-years it starts—bang! “This is how it really is, not how you fancy it is. This is how things are done. This is how we should feel. This is how you should think.” Five-, six-, seven-, and eight-year-olds are coerced to listen. Unfortunately, it is more and more believed that the earlier you start schooling the better.

So we have a very important function to find those who are writing good things about this time between ages four and eight.

But the reality is that we have a system in which we do put children in schools right away. And we have people responsible for nurturing their development — people who teach kindergarten and grades 1 and 2.

AN: I would then introduce the difference between science and research. If you let the four-year-olds continue the development in cognition, they will be researchers rather than scientists, they will be researchers and seekers, and they will be marveling just as much at what we don't know as what we do know. Lots can be done in upgrading the term *research* in relation to science. A good researcher may never pretend to have contributed to scientific knowledge. Teachers as researchers, or seekers, talk as much about what we don't know as about what we do know.

So, in the kindergarten you should have very few finished products of any kind, but many tools and very many natural things that the children can use. You should have projects that only faintly suggest what can be done.

There should be easy access to what I call patches of free nature. Those may be very small — not wilderness. Patches are where things grow without any design whatsoever, and if the body language of the teacher expresses concentrated attention, they all tread very lightly, very carefully.

One square meter of a meadow is so fantastically rich that there should be enough to discover for the rest of our lives. So you could have the children follow the small patch of free nature through several months: the same little flower, but now withering. Take just as much care of the withering plant as of the blooming plant.

Kit-Fai Naess: How could you expect five-year-olds to withstand social pressure, group pressure from not having this particular toy, from not having a Spice Girls CD?

AN: Yes, it's not a question of not having new things, but rather a question of keeping and valuing things. Show children, don't just place gifts in their hands. My small daughter already knew about radio when she came into the mountains. "Where is the radio?" she would say. Then, the next time we had a radio with us: "And here is your radio." Of course, for a couple of

days she used the radio, but after a week she never used the radio. The mountains did not encourage radio.

You have often said that you're an optimist for the twenty-second century. But what about a fourteen-year-old who is despairing, who's facing her whole life? If she thinks the world is burning up because of greenhouse gases, why should she care?

AN: There are some doomsday prophets, but there are no doomsday prophets among the serious ecologists. Not a single one. Every fourteen-year-old who cares should be told this. Ecologists tend to say that if we continue developing exactly as we do now, looking at statistics, we may then reach within a hundred years a catastrophe of a major kind such as major worry about access to clean water. There are often qualifying if's.

Serious ecologists also tend to say, If you would like to be with us, you are welcome. There are so many different kinds of things going on where you can help. So you can find your place. The twenty-second century may see the end of the ecological crisis.

I use the slogan "The frontier is long." There is a tendency to say, What I am doing for the environment is of the most important kind. Then the other one says, I am doing so and so; I think what I'm doing is of the most important kind. We never should say such things, because there are so many different tasks to be done and there are callings for so many different kinds of persons and capacities. If somebody is not yet an activist, we should find a suitable area for that particular person. Then say, Oh, excellent, we need people there. Just go on! We should not say, There are more important problems, you should do something else.

What about cynical students? Deep ecology perspectives are appealing to many environmentalists and educators, and yet we live within the cultural and economic systems that give rise to so many problems. We cannot isolate ourselves from these systems. For example, I am now in Oslo and you were recently in Victoria and Vancouver, yet the consumption of the vast quantities of fossil fuels required for such travel seems at odds with our values. Given these potential inconsistencies, it is easy to "tear ourselves apart from within" or retreat into cynicism or lack of interest.

AN: Well, I'd say to those who would like to be consistent, It's a high ideal to be consistent, and you will achieve it when you die—not before. As long

as you are an honest human being, you will see that you are inconsistent in ecological matters. And Gaia, she says to you, You may have a lot of bad habits but there are limits. If you have a bad habit, if you always must have the newest kind of camera—you can't also have the latest kind of tent. When I was invited to travel to the Antarctic, I could not resist the temptation, but I immediately announced that I would be glad to give lectures in Uruguay on deep ecology and the relationship between deep ecology and social ecology. So I said to Gaia, I am now going to Uruguay on your business, and then I might do this very bad thing: fly all the way from there to Antarctica. We are sinning in a sense, but we have a budget. You may think each year Gaia will give you a gift, a Gaia gift, of some ecologically bad habits—and the goal will be to have a little left even for Christmas. I never have.

If you live in Norway, it is very difficult to live all year within the scope of the gift, especially if you live in the city, so you must take into consideration where you live. You should think of this as a gift, and that She is very tolerant: She doesn't like it if you moralize to others—saying "I use the train, I'm not flying"—because we all are sinners in a sense. Very young people should be discouraged from trying to be perfect. Rather, they should try to classify bad habits and say, Here is a bad habit that really has some influence. Maybe I could change that—and then I keep some of the others.

Some people might say that this is an easy way to rationalize bad habit.

AN: It is an expression of realism, but of course it might be an invitation for some people to rationalize. On the other hand, there are people who feel and remember their imperfections too often, too much. Some are carrying a heavy burden all the time. So it goes both ways. Some need to be encouraged.

I once had a student who seemed to think it was an all-or-nothing game — who did not seem to see any incremental way to make a difference because we needed such fundamental changes in every dimension of our society. He seemed to throw up his hands.

AN: Well, here I learned from Gandhi. He had a vast revolutionary program, not so much to get the British out of India as to liberate the Indians from their own kind of authoritarianism and their corruption. He said, "One step is always enough for me. One step and then another one." We

have this one step as a major thing to accomplish—and having accomplished that little step, we then take the next step. “I am a compromiser, except on the fundamentals,” he said.

You may be a revolutionary in two senses, either try to make things happen fast and with violence, or make things happen more slowly and with nonviolence. Nonviolent revolutions are long-term revolutions. A revolution is thought to be something really important. It is about big things — like getting rid of slavery — but a minority, consisting of activists, is enough. The majority will hesitate, then say: “Well, I agree . . . okay.” A minority must stand up, as your students must do, stand up and say things. That’s an obligation.

Alfred North Whitehead once said that “the merely well informed man is the most useless bore on God’s earth” (Whitehead 1949: 13). At least partly to blame, he argues, is that they are overladen with inert ideas. And you have said, philosophical insight “should be directly relevant for action” (Naess 1989: 37). But is action properly an aim of education or a logical and practical consequence of having acquired an education?

AN: The education should itself consist of actions. You cannot have a dichotomy there. You can have something that is more like a piece of theoretical education and something that is more like a piece of creative action. When you walk—a little trip into nature with students—you cannot draw the line sharply at all between education and action, and you should not draw a sharp line between how you treat nature, how you behave, and how you act. We call this *friluftsliv* (Gelter, 2000). Life in nature is a major thing in Norway.

I stress the difference between activity and activeness. With activity you do things, play things. Activity can be seen by others, but in what I call activeness your whole person is active even though you may be completely quiet. No overt action. Moreover, something in your personality is somehow changing—maybe not always permanently, but for the moment. *Activeness* is an important term. You may point to somebody and think, He is in no activity at all; he has stayed at the same spot for an hour. Yet he may realize a high level of activeness.

In Japan a friend of mine helped me to gather about 100 people. We went into the forest at daybreak, and we said, Now let us say nothing to

each other. We will just listen to what the trees are saying. We had one hour of complete silence. We were active. We had a high level of activeness but showed no observable activity.

Many people are looking for mentors who work toward bringing their actions and their ideas together. Would you care to give an example from your own life about how you formulated a position and then engaged in direct action?

AN: For me, it was a question of whether we should get a lot of electricity by harnessing a great, beautiful waterfall. In this case the local population deeply liked that waterfall, and they were less interested in all the money from development—they preferred the waterfall as it was. I thought that was marvelous. You cannot join all the protests, but when there is something very special, you just leave what you are working at and you join in the protest, in my case at this waterfall.

If you wish to get into practical conflicts, you must train yourself. You must do the right thing but in a way that does not create antagonisms. For example, I always had excellent relations with the police, being arrested several times. I said, “I’m sorry I have to do this. I’m sorry, I have to lie down.” Then, as I was being dragged along, I once asked them, “Do you get told how to carry—so that you can carry many people without hurting your backs?”

You should have a lot of self-respect. You must believe you are entitled to civil disobedience, but only after genuine efforts to avoid it.

What about the teacher who lives on the west coast of Vancouver Island, who’s concerned about environmental issues and is living near a logging community? The teacher wants to explore issues concerning human–nature relationships and relate these to logging or fishing. When all is said and done, what is the role of action?

AN: If you find a particular environmental goal, then it is right for you to join in this direction, and invite the students to do the same while respecting the opponent fully. You only use, as I say again and again, the term *if*. If your priorities are in a particular direction, then it is appropriate to point toward relevant actions; but always act in a Gandhian way, always nonviolently. That implies maximum contact with the opponents and less talking with the converted. Let people in the logging community call you names, make it difficult for you. Never retaliate.

How do we nurture action without being guilty of leading students in the direction of our own ideologies?

AN: By means of the qualifying term *if*. You may say, “If we have a particular deep kind of priority and value, what then follows from this?” If you always use these qualifying if’s, then you are on the right side. You can go on arguing for three-quarters of an hour, but only if, from time to time, you preface a remark with the term *if*.

It is correct for you to lead people in your direction—toward what you think is right—but not in a wrong way. So it is completely right for you to do everything you can to have the community adopt your policy, but as a teacher, you should always do this with qualifying if’s: “If you have the following value priority, then. . . .”

I can’t help but think that we need to make space for something beyond advocating our positions, even with the if’s. In an academic setting, you can logically make your point with the qualifying if’s, but if you’re teaching school in a logging town, people threaten to remove their children from school if a teacher even mentions the environment. There is a great amount of fear.

AN: I understand. Better never mention “the environment” in class.

Let’s say we discussed an environmental issue for forty minutes. You may end up by clarifying the position of loggers. Clearly elaborate your own opinion, but don’t end up with that. End up admitting that the situation in your community is different from the situation in the community of your antagonists. We may continue to disagree, but let us look for areas of cooperation.

Arne Naess would be in pursuit of truth and validity. He would not claim an ultimate answer, but he would like to point in a direction.

How My Philosophy Seemed to Develop

Introduction: Motives for Psychoanalysis in 1934

Early in 1934, at age twenty-two, I found myself in Austria eager to climb mountains and study.¹ Psychoanalysis was at that time very close to the center of cultural attention in Vienna. It was therefore inevitable that I should ask myself, If I am to be an honest philosopher or scientist, would it not be prudent to go through a psychoanalysis? Was it not suspicious that in the first draft of my doctoral thesis I had introduced the notion of the “achievement” (*Leistung*) rather than the “meaning” of a sentence as a basic dynamic concept? Might it not have to do with my own, perhaps unwise, achievement-mindedness?

Soon I was in a deadly serious fourteen-month analysis, 8 to 9 A.M. every morning except Sundays, with the old collaborator of Freud, Edward Hitchmann. We were both somewhat astonished to find that I had suffered a pronounced childhood neurosis. It had obvious consequences for later life, and the analysis turned into a combined character analysis and analysis of my philosophical inclinations. Some of our findings may be of interest in tracing the genesis of philosophical inclinations in general.

First, I shall try to explain how I arrived at a set of rather basic attitudes and valuations. They will be suggested through a set of key terms. They are not philosophical in any academic sense, but given certain social and cultural conditions, they easily lend themselves to philosophical expressions.

This article was reprinted with permission from *Philosophers on Their Own Work*, volume 10, edited by André Mercier, Maja Svilar, and the International Federation of the Society of Philosophers (New York: Peter Lang Publishing Inc., 1983), 209–26.

Second, I shall try to show how these attitudes and valuations contributed motivationally to definite points of view in definite philosophical publications. The two parts of the argumentation are not clearly separated in the text that follows. I shall feel free to mix them when it is natural to do so.

Shorelines and Mountains: Infant Shoreline Naturalist

From the time I was about four years old until I reached puberty, I could stand or sit for hours, days, weeks, in shallow water on the coast, inspecting and marveling at the overwhelming diversity and richness of life in the sea. The tiny beautiful forms that “nobody” cared about, or was even able to see, were part of a seemingly infinite world, but nevertheless *my* world. Feeling apart in many human relations, I identified with “nature.”

If I disturbed a small sole it would swim around a little, but if no better hiding place presented itself, it would return to me and hide under my foot. We were friends and helped each other. I could make tiny crabs fight, but left alone they would avoid each other or, if forced to compete when eating, would threaten each other in a harmless and amusing way. I did not see much of the brutality that I later heard people attribute to nature. Later in life, it seemed to me more manifest among human beings.²

Tiny translucent shrimps would gather around me, staring at me and carefully inspecting my submerged surface. They liked to be fed. Their never-ending inquisitiveness, their gracefulness swimming backward was one of the hundreds of charming features of life as I experienced it. (It is strange to see that an eminent Chinese artist seems to have had the same kind of fascination with shrimps—and it is encouraging to see his painting of shrimps reproduced on postage stamps.)

Two things of clear relevance to philosophy in general and to my philosophy in particular are elucidated by the above: an enthusiasm for *diversity* and a lack of incentive to judge something (some life-forms) as unquestionably higher, nobler, more right, than any other. Key terms here are *equivalence*, *equivallidity*, and *egalitarianism*.

Life along the coastline fostered an inclination to inspect and contemplate the affairs of life from a great distance, but also to participate in a way. In a way, I say, because the social distances between human boys and shrimps are unquestionably large. Some key terms of a shore-life philoso-

phy are: *richness, diversity, multiplicity, equivalence, equivalidity, egalitarianism, peacefulness, cheerfulness*. These were qualities of life as experienced by a definite onlooker and participant. Obviously, if one takes shore life as a paradigm for life in general, including human life, such qualities will affect one's professional philosophy.

One condition, though, must be fulfilled: the experience of shore life must somehow be "traumatic," in a positive sense of "decisive"; it must somehow be associated with very deep feelings and drives. Here a neurosis may be decisive. I shall not try to go more deeply into the psychological background, but I maintain that the key terms suggest bridges of a combined emotional and cognitive kind, linking basic, very early, in part neurotic, experiences with specific philosophical views in my books and articles.

The feeling apart seemed to stem from a basic catastrophe in my earliest life. Because of the death of my father when I was only one year old, and the preoccupation of my mother with my two brothers who were in their early teens, I was left in the care of a maid. She was excessively kind and submitted to all my wishes. Thus, in summertime I would not tolerate being put into the bathtub except together with a fly. She had to fetch a specimen by climbing up on the windowsills. She was dismissed because of her excesses when I was three years old, and I was never able to love my mother properly as a substitute. It seems that I experienced the change as a loss of a whole world, and that I managed to procure a new one. Nevertheless, the desperation turned inward as a moderate but not insignificant urge to self-destruction and, according to Hitchmann, a masochistic bent. (I think that *destruction* is a better key term.)

The catastrophe remained psychoanalytically rather obscure in spite of intense work. We obtained analytical material in abundance from the age of five, but apparently I had by then already adapted to some extent to my new world.

The life-forms along the coastline obviously differed in cleverness. Some were completely helpless. It was easy to catch them and inspect them. Others were alert and complex in their reactions. I did not, however, attach more value to or have more respect for the clever ones. They obviously all had their own more or less appropriate lifestyles. Shrimps were impossible to catch with one hand—they were accustomed to attacks from one direction—but they did not understand the clever cooperation of two hands.

Their backward thrust sent them into my second hand, quietly placed behind them. I loved them in part *because* of their funny limitations, not in spite of them. Bigger fish were immensely clever and mostly saw me and disappeared before I saw them.

Distance and aloofness were only two of many ingredients in my seashore experiences. They were more pronounced as ingredients of mountain experiences.

Distance gives perspective and breadth of survey. To see a landscape, including human settlements, from the summit of a mountain inspires the contemplation of totality, but also a feeling of being above things, unruffled. To see the mountain from below fosters in some of us a longing for this unruffledness and equimindedness—and more so in a child with terrible things going on somewhere in the mind and body and bursting out in interminable nightmares.

From about the age of eight a definite mountain became for me a symbol of a benevolent, equiminded, strong “father,” or of an ideal human nature. These characteristics were there in spite of the obvious fact that the mountain, with its slippery stones, icy fog, and dangerous precipices, did not protect me or care for me in any trivial sense. It required me to show respect and take care. The mountain loved me but in a way similar to that of my two brothers, ten and twelve years older than I, who were eager to toughen me up.

Philosophically, such a cult of a mountain reduced the need for anything supernatural, anything protecting us directly or guaranteeing the meaningfulness of life. To the key terms *distance* and *aloofness*, we may add here *austerity* and *toughness*. Thus, my very early cult of a definite mountain from the age of eight enhanced rather than weakened the need and capacity for distance, perspective, toughness, and equimindedness.

William James introduced the terms *tender-minded* and *tough-minded* to characterize philosophers. I received a very strong push toward tough-mindedness from my elder brothers. Being tough, somewhat wild, and older than I, they found it their duty (they say) to make a real man out of their thin and timid little brother. (When sick children from hunger-stricken Vienna were sent to Norway in 1919 I was, to the embarrassment of my mother, taken to be one of them.) Their “training program” was tough. For example, they would put me in a snow cave and pretend to fall through

the roof, or they would throw me over small precipices into deep snow. What if I cried? Their version: they would tell me that if I stopped crying, they would stop their treatment. My version: serious distress on my part made them stop, one manifesting tenderness, the other a never-faltering, equiminded benevolence.

The “education” by my brothers left no doubt whatsoever that they loved me and that they could be trusted no matter what, but love got to be a rather tough affair. No nonsense, no sentimentality. This attitude seemed to come to the fore as a detestation and fear of being influenced by manifestations of spirituality and high-sounding notions. A *moral* reaction against Henri-Louis Bergson and metaphysics in general seems to stem from this.

Gandhi did not exclude bloodshed so long as the blood stemmed from the *satyāgrahi*. His spartan lifestyle and nonviolent militancy could be admired in spite of this background in spiritual metaphysics. Spinoza was clearly a tough nut even though he indulged in “romantic” notions like perfection and love of God. Thus, I could let my admiration for these two men of wisdom flourish without feeling guilt. My publications on Gandhi and Spinoza are colored by this admiration.

Two philosophical points were rubbed in through the naturalist experiences: egalitarianism and the value of diversity. A third, developed through the combined influence of these two, was a certain form of *scepticism*. Some points of view (like some animals) are clearly vulnerable from some other points of view (or some other animals), but why imagine that one definite point of view (one kind of living being) would not be vulnerable from *any* other? What value would there be in having something defeat all others? Philosophical geniuses are normally believed for a short time, but are then gently dethroned and left with the label “of considerable historical importance.”

Mephisto

I had a kind and cheerful cousin, one year older than I, my best and only real friend until puberty. Unhappily he was not in my neighborhood (Oslo) during crucial years of my boyhood and teens. He had a brother, ten years older than he, who was considered (at least by my mother) to be the black sheep of the family. He was a Mephisto figure full of sarcasm and cynical re-

marks about life, but he was remarkably kind and tender toward his little brother, who admired him and repeated his dark sayings—without understanding them very clearly, I suppose.

The (of course hypothetical) influence of Mephisto was rather direct: from him I understood that it was quite *possible* to utter the most infamous, sarcastic, and cynical things about parents, humanity in general, and grown-ups in particular. He also showed that it was possible to maintain that married life is absurd and most other venerable institutions abominable. Quite a discovery! In spite of his sacrilegious utterances, he was not struck by lightning. I felt that I had a basic freedom to make up my mind in any direction at all on any subject whatsoever.

Grown-ups reacted with a combination of horror, perplexity, and admiration when I found a little sarcasm appropriate, and I discovered what might be the sure foundation of the art of successful analytical philosophy: the concise counterargument or the old question “What do you mean?” My mother, extraordinarily talented in her choice of expressions, called me the light extinguisher. Because Mephisto was consistently kind and helpful toward my friend and me, I did not feel that destructive, or at least rather cynical, opinions were a symptom of *personal* hatred or aggressiveness. I regarded his attitude as an important one in fighting hypocrisy. Mephisto seemed really to hate its pervading influence. When asked why we did something, we tried to be courageous and mention only our least acceptable motives, hiding our best.

In my later discussions with logical empiricists I think that some of the high esteem they seemed to have for me as a young man derived from short, sharp, but benevolent, counterargument delivered at the right time without blushing.

The Immensity and Nearness of the History of Life

The Platonic saying that the unexamined life is not worthwhile is one that most, but scarcely all, philosophers accept. Personally, I emphatically endorse it. One of the early sources of this emphasis is clear.

H. G. Well’s *Outline of History* (1920) was the first widely read general history of life. Not only were civilizations far away from Europe in time and space treated earnestly and sympathetically, but also the prehistory of life

since Cambrian times, hundreds of millions of years ago. By chance I got hold of the book. What an immense and sudden expansion of my own life's frame of reference! I found that I ought to pay just as much attention to *all* this life history as to that of my own country. All geological periods had the right to be taken seriously and also all creatures, past or present. In my imagination I traversed the history of life again and again during long nights.

By the time I was fifteen the horrible nightmares, a characteristic consequence of my neurosis, had largely disappeared, but I still suffered from sleeplessness. Even today I find the twittering of small birds before day-break ambivalent. For many years they said to me, Sorry, another night with little or no sleep. Another day is near.

A crucial experience: I divided life history from the Cambrian onward into one week of nights—with my own life at the very end of the week. It would consist of only a fraction of a second. What would be worthwhile in this fraction of a second? I never doubted the correct answer: to have a look at the marvelous world, to find out a little about it. Human beings were the first species that had the capacity to become somewhat acquainted with the universe. Devoted scientists, or rather “researchers,” seemed to be those who could satisfy the yearning to find out about the universe, so I started feeling that research would be the right occupation in life. What a joy to get acquainted with the overwhelming richness of our planet!

From these experiences another variety of egalitarianism evolved: all creatures have their own “premises” from which they act. Brontosaurus had a very small brain but was not too stupid to survive many millions of years. *Homo sapiens*, with a lot of brain, *ought to* be able to live and do research just as long or longer.

The extreme shortness of individual life would make it important to limit myself to essentials in the sense of Ibsen's *Brand*, that is, to concentrate on research. No time should be lost to indifferent signs—*adiafora* in the terminology I later learned to know. Dr. Hitchmann found my resulting *Zeitgeist* extreme and deserving of close analysis. It was in his view rather unreasonable and also impossible to realize in a consistent way. (How did I justify thinking so much about the other sex? How about excessive mountain climbing?) Anyhow, emphasis on essentials easily led to emphasis on essence—the real nature of things and its real value.

PHILOSOPHICAL DEVELOPMENT, ENVIRONMENT, AND EDUCATION

The work of scientists devoted to the history of life I took to be a work of love and appreciation. Researchers seemed to be the only people able to maintain a consistently positive *basic* attitude even toward the ugliest and most terrifying creatures. Poets were seduced by beauty and form.

It took about forty years to undermine this prejudice formed when I was fourteen to eighteen years old.

From now on I hope I need dwell no further on purely biographical matters. Below I offer a chart suggesting some relations between certain kinds of attitudes and valuations of philosophic relevance.

Key Expressions		
diversity	equivalence	nonviolence
richness	equivalidity	populism
multiplicity	egalitarianism	antiauthoritarianism
naturalist attitude		optimism
distance	aloofness	
	equimindedness	
self-destructiveness	toughness	self-criticism
austerity	reductionism	fragmentation
	trivialism	

Naturalist Epistemology

Enthusiasm for science created in me a need to know what it might be. Could there be a *science* of science?

Just as I would learn about crabs by watching them, I would learn about science through observing the behavior of scientists. Much of their behavior is verbal, and I could not pretend not already to be superficially acquainted with their language and ways of life. But this “knowledge by acquaintance” (Russell) could not be turned automatically into a science of science. On a genuine metalevel, one is not permitted just to listen to scientists as close friends and use their conceptual framework uncritically.

I thought I found in the sophisticated “molar” and “purposive” behaviorism of E. C. Tolman a scientific basis for the understanding of both scientific *activity* and *knowledge*. This approach, and its detailed elaboration in my book *Erkenntnis und wissenschaftliches Verhalten* (Knowledge and scientific behavior, 1936), is no different from what is widely known today as

ethology. In principle it is no different from a kind of purely descriptive zoology of scientific knowledge.

Different sets of *Verhaltensweisen* (ways of behavior) include the sentence "The distance of the sun is 149 million kilometers from Earth" as an important ingredient. They correspond in part to different ways of measurement. The "content" of the piece of knowledge "expressed" through the sentence is neither the distance "itself" nor a more or less illusory phenomenon in our consciousness or our brain, but rather definable in terms of sets of kinds of behaviors. The point of view is related to the operationism of Bridgman, but at a deeper level in opposition to it.

Karl Popper and other logicians of science were astonished and nonplussed when they heard after the war that I still looked upon the scientific enterprise from the point of view of a naturalist. Not that I thought the ethological approach should be the only one. There might be indefinitely many other approaches with equal, or rather, not less, merit. After all, science is only a few thousand years old; science of science is scarcely a hundred; and we might have millions of years to go, if we survive the immediate future.

The genesis, as far as motivational history goes, of my behavioral research on rats and human beings is in part clear. Students at the Sorbonne in 1931 made me an enthusiastic reader of Henri Bergson. I tried to construct a conceptual framework for the understanding of science through "*les données immédiates de la conscience*," but I found that one never gets out of consciousness if one starts there. The whole introspective approach, including that of Husserl, seemed to me to be based on a grand illusion. Bergson and Husserl (in his Cartesian mood) were seducing us, I felt, through lofty visions. They disabled us as real down-to-earth researchers. Perhaps one could learn more from plain observation of learning in rats and rabbits. (The latter animal is referred to repeatedly in my work on scientific behavior.)

Consequently, I went in 1938 to Berkeley, where Tolman received me cordially and let me carry out extensive experiments on hundreds of young innocent rats. One problem: if rats were confronted with an increasing number of choices of where to perform a difficult jump, would their power of action diminish? That kind of problem had vexed me for seven years: my Marxist friends combined great power of political action with essentially

one-track minds, whereas I hesitated and went politically limp, perhaps because I saw and contemplated many, mutually nonconsistent possibilities.

It turned out that rats retained their jumping capacity but showed increasing hesitation and discomfort—measured by the number of defecations and urinations, poor friendly animals! Exactly what, though, could be inferred from that result? Very little, I ultimately concluded.

In angry reaction to the spirituality of Bergson and Husserl and to German introspective psychology of knowledge, I adopted a kind of “objective” epistemology, which helped (or misled) me through the attitudes and value judgments suggested by the above-mentioned key terms *toughness*, *reductionism*, *trivialism*, *austerity*. I was also assisted by the “naturalist attitude” toward scientists. In Berkeley 1938–39 I placed myself behind a rat psychologist who placed himself behind rats. I traced the movements of the psychologist’s head and hands while he traced the movements of the rats.

The key terms *distance* and *aloofness* also apply here, because an essential ingredient of the naturalist epistemology is to avoid relying on spontaneous acquaintance with the scientists’ concepts and explanations, instead approaching the terrestrial scientist as a kind of strange creature inhabiting a strange planet. The operationalist describes operations in terms used by the scientist himself when he describes them. That gives a caricature of metascience.

The key terms *scepticism* and *self-criticism* do not apply to the above-mentioned work directly, but to the public discussions that it started. In a reply to H. J. Pos, I said that the metascientific *model of scientific knowledge* is only one out of indefinitely many, and that just as the behavioral metascientist places himself behind the scientist, meta-meta-researchers representing different approaches may place themselves behind the behavioral metascientist. Perhaps even the key term *self-destructiveness* applies, because what I did was very nearly to say that I had not *asserted* anything whatsoever, just pointed to a scenario. I did not want to compete with anybody. Today I wish to retain something both of the book and of the extreme pluralism implied in my meta-meta-reflections about the book—but exactly what?

The naturalist approach is neglected in Western academic philosophy in favor of epistemic logic, logic of discovery, and other approaches that avoid broad empirical confrontations. It is as if logical considerations were regarded as more philosophical *in themselves* than empirical considerations.

The Richness of Amateur Philosophies

It is difficult to introduce a concept of truth in epistemologies whose intent is to overcome the absolute distinction between subject and object. This certainly holds good of behavioral approaches. So I was led to take up the broad debate on concepts and criteria of truth, but published only one monograph, *Truth as Conceived by Those Who Are Not Professional Philosophers* (1938). Among the nearly one hundred themes I identified in the debate on concepts of truth, I selected one kind that had never before been taken up seriously: exactly how *true* and related words are actually used in society, and how “ordinary” people conceive truth.

The motivation brings in the key term *self-destructiveness*: the chosen theme could not possibly lead to any contribution to the vast and deep problems of truth as conceived by professional philosophers. Furthermore, I knew that the extensive use of questionnaires and statistics was detested and scorned by “genuine” philosophers. My predecessor in the philosophy chair at the University of Oslo tried to persuade me about two things, to apply for the professorship and *not* to send in my *Truth* monograph. Otherwise, he could not vote for me. That clinched the matter: *I had to* send in that work. (I was nevertheless appointed in 1939 against his vote.)

The empirical study of ‘truth’ made me jubilant and happy; people who had never read philosophy and never thought about my questions answered spontaneously with an astonishing richness, diversity, and multiplicity of opinions. Practically all the main kinds of “professional” views were expressed—not in a sophisticated way, but at least as embryonic philosophies. For example, extremely terse and pointed formulations such as *that it is so* were produced as answers to “What is the general characteristic of anything that is true?” Verification conceptions of truth were expressed through formulations such as *that it is shown (to be the case)*. If quotations typical of Plato were offered, counterarguments in an Aristotelian vein were produced.

To my delight, some people down to the age of fourteen could be classed as Pyrrhonic or zetetic sceptics in the sense of Sextus (Ph, 1,1,1). They would say that no truth had ever been definitively established, but they did not think of this opinion as definitively established either.

The study of truth and a series of other, similar studies, mostly unfin-

ished and unpublished, supported me immensely in my attitudes and valuations (also) with the key terms *egalitarianism*, *populism*, *antiauthoritarianism*, *optimism*. They embarrassed colleagues in the humanities, however. At least one of them found it deplorable that Norway's only full professor of philosophy studied the philosophies of housewives instead of that of Plato. Sure enough, my studies gravely undermined my already shaky belief that there was anything that we professional academic philosophers could perform today better than amateurs and decent, empirically minded, interdisciplinary researchers.

What about the richness and equivalidity of *professional* philosophies? Provoked by mutual distrust between existentialists and the analytically minded, I published *Four Modern Philosophers* (1968a), taking care not to reveal any differences in my estimation of Carnap, Wittgenstein, Sartre, and Heidegger. Carnap complained mildly that I had compared him to a schoolboy.

Logical Empiricism and Empirical Semantics

Valuing mountaineering and life among mountains higher than university studies, I chose to live in Switzerland once I had received the degree of master of arts (1933). After comparing prices, however, I went to Austria instead. In Vienna I by chance dropped into the famous seminar led by Moritz Schlick and Friedrich Waismann. The logical empiricists received me with touching cordiality, and for some years treated me as a new comet on the philosophical firmament.

My main grievances were only two. First, in spite of their brilliant intellects, they seemed really to believe that they had found some truths. I looked upon their views *only* as fruitful research programs, consisting of rules of considerable, but limited value (Naess 1936a, 1938). Their working hypotheses could only be confirmed through interdisciplinary research, mainly empirical with only a dash of formal logic.

The second grievance was their belief that the study of language and formal logic could somehow contribute in an essential way to the "solution," or at least "dissolution," of philosophical problems. Instead of slogans such as "physicalism" they ought, I thought, to adopt that of "research behavior" (Naess 1936a). I mention these grievances because they have

much to do with understanding the main goal of my largest work, *Interpretation and Preciseness* (1953 [SWAN I]).

In that work it is implied that terms of daily life, and to a lesser degree also technical terms in wide use, permit of an indefinite variety of interpretations presupposed or postulated by philosophers artificially to narrow down the options. Underestimation of the range of interpretations reduces insight into the richness of tenable positions concerning problems of vital interest.

The turn of (Western) philosophy in this century toward language rather than cosmos, toward logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind alley.

Communication, and especially *preciseness* in communication, depends upon interpersonal synonymity relations. These are worthy of decent empirical research, but it costs great labor to carry through the investigation even of seemingly simple relations. Thus, the turn from cosmos to language is not a shortcut to truth.

Even a superficial inspection of *Interpretation and Preciseness* makes clear the emphasis on diversity, richness, multiplicity, and searching rather than finding. The same holds for my survey of concepts of democracy and ideology (Naess, Christopherson, and Kvalo 1956).

As the leader of the project on ideological controversies between East and West at UNESCO (1949–50), I had the chance to indulge in the multiplicity of interpretations of *democracy* and related terms. With the able assistance of the young political scientist Stein Rokkan, we were able to undermine the grave accusations in the Eastern European camp that the terms were *misused* in the West, as well as the indignant reproach in the West of evil misuse in the East. Not only were *diversity*, *richness*, and *multiplicity* key terms, but also *nonviolence*, *aloofness*, and *equimindedness*. We corresponded with about 450 scientists and politicians on hotly controversial problems. The resulting volume, edited by R. McKeon and S. Rokkan (1951), was promptly sold out and never reprinted by UNESCO owing to the politically dangerous character of its contents (see *ibid.*, pp. 447–512).

Diversity and Nonviolence

In several books and a great number of articles I have promoted the nonviolent solution to conflicts. I have supported the Gandhian active nonvio-

lence (*satyāgraha*) and tried to show philosophical principles from which it can be derived (Naess 1974b [SWAN V]). Gandhi contrasted “the law of the jungle” with ethical law as intuited by man. Placing human societies and myself, as I had, within the framework of an essentially homogeneous, all-embracing Nature, and admiring and feeling nearness to the small carnivores along the shore, how was it possible for me to come early under the strong influence of a Gandhian ethics of nonviolence? As mentioned above, the life to be found in shallow waters may be conceived as essentially peaceful, and favorable to a norm of maximum diversity, richness, and multiplicity. Since Darwin there have been undercurrents stressing the evolutionary importance of symbiosis—the capacity of living together with or without mutual benefit (Krapotkin and others).

A human being who has not been deeply hurt by suppression, hatred, or lack of support and care can *identify* with all living creatures. The sufficiently mature person experiences joy on seeing joyfulness in others, sorrow on seeing sorrow. The mature mind also sees the vast differences of conditions under which fellow creatures live, and understands that the differences will (and should) foster a vast variety of ideas, behaviors, lifestyles, and cultures. To contribute to the maximum richness of differences, human beings should counteract only the growth of ideas, behaviors, and lifestyles that threaten this very richness. We cannot remain passive in the face of such growth and the conditions for that growth.

Does not this imply firm beliefs and therefore a rejection of scepticism? As developed in my *Scepticism* (1968b [SWAN II]) I favor a *zeteticism*, a fundamental openness based on concepts and intuitions of equivalidity. When diversity goes deep enough, a kind of generalized *de principiis non est disputandum* has to be adopted. This implies rules of behavior that harmonize with those of nonviolence in conflict situations.

The self-destructiveness revealed in the psychoanalysis was sometimes clear to me in the 1960s when I was defending scepticism and elaborating my view in book form. I could myself object against my work: “Professional philosophers look upon a defense of scepticism as a defense of the ridiculous view that you don’t *know* that no elephants swim in your soup. People at large inevitably feel that you defend doubting and negativism. The way you write is therefore quite misleading and apt to eliminate you as

a serious participant in philosophical and social life. But perhaps this is what you secretly wish!”

Ecosophy

The global ecological movement touched off by Rachel Carson gave me an opportunity to gather together most of the themes of my philosophical works in systematic form under the heading *ecosophy* (a large number of these publications are now available in English in volume 10 of the SWAN series). It is a kind of total view inspired by, but not derived from, ecology. Its emphasis is on basic norms and hypotheses concerning the relation of man to an all-embracing reality. A model (and therefore a conscious, deliberate simplification) takes “Self-realization!” as a fundamental norm. The self to be realized is not the ego, but the large Self created when we identify with all living creatures and ultimately with the whole universe, or Nature in senses close to Spinoza’s *Deus sive Natura*.

It is often said that the discovery that the earth is not the center of the universe has made man smaller. It has diminished his status. I have always felt that I grew bigger and bigger with the extensions in time, space, and cultural diversity. The universe is *my* universe, not my ego’s but that of the great Self we have in common. This is metaphysics, but through philosophical research it can be developed in the direction of clarity and cognitive responsibility. From the fundamental norm “Self-realization!” plus hypotheses about the world, I derive a set of principles for “Green politics.” In this way, abstract problems of philosophy are connected with concrete issues of contemporary political conflict.

The elaboration of ecosophy and the participation in social conflicts in favor of Green politics furnish cultural expressions of nearly all my youthful dreams and reflections. I shall not repeat the key terms, but refer the reader to the survey listed earlier in this article.

Some of the terms need comment, however. Austerity contributes to the picture of a life rich in the realization of intrinsic values, but simple—even spartan—in the use of means. Toughness is required in the nonviolent fights, in protection of nature, soft technology, cultural diversity, and decent lifestyles. Self-destructiveness, reductionism, fragmentation, and triv-

ialism are, it is to be hoped, gradually eliminated—but what about self-criticism?

On the Way

There is nothing in “ecosophy,” or in any other, more fragmentary work, that I would regard as established. On the contrary, I feel that all I have published has been “on the way.” Before proofreading is done, I have normally fathered heaps of notes for improvements, modifications, and elaborations. When I leave a subject and proceed to something new, it is always because I am impelled to do so by the movement of my own thought and actions, not because what I leave seems well enough worked out and accomplished. With greater talents, I would have produced better-rounded-off works, but basically I think that human beings are something essentially on the way, destination unknown, and that they are justified in expressing themselves, talented or not, as they move along.

Deep Ecology of Wisdom

The Selected Works of Arne Naess

Harold Glasser, Series Editor
Alan Drengson, Associate Editor

I

Interpretation and Preciseness

A Contribution to the Theory of Communication

II

Scepticism

Wonder and Joy of a Wandering Seeker

III

Which World Is the Real One?

Inquiry into Comprehensive Systems, Cultures, and Philosophies

IV

The Pluralist and Possibilist Aspect of the Scientific Enterprise

Rich Descriptions, Abundant Choices, and Open Futures

V

Gandhi and Group Conflict

Explorations of Nonviolent Resistance, *Satyāgraha*

VI

Freedom, Emotion, and Self-Subsistence

The Structure of a Central Part of Spinoza's *Ethics*

VII

Communication and Argument

Elements of Applied Semantics

VIII

Common Sense, Knowledge, and Truth

Open Inquiry in a Pluralistic World

Selected Papers

IX

Reason, Democracy, and Science

Understanding Among Conflicting Worldviews

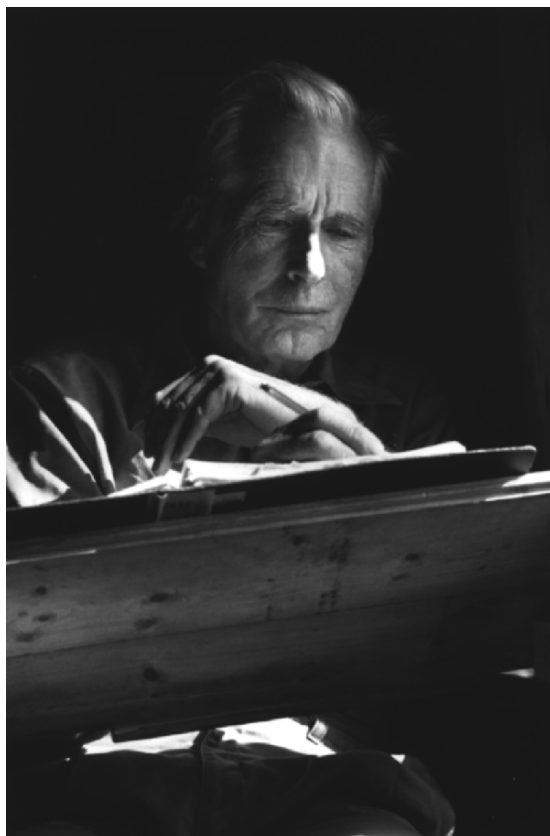
Selected Papers

X

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures

Selected Papers



The Selected Works of Arne Naess

Deep Ecology of Wisdom

Explorations in Unities of Nature and Cultures
Selected Papers

Edited by Harold Glasser and Alan Drengson
in Cooperation with the Author
and with Assistance from
Bill Devall and George Sessions

VOLUME X

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

ISBN-10 1-4020-3727-9 (set)
ISBN-13 978-1-4020-3727-6 (set)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springeronline.com

The Selected Works of Arne Naess was made possible through a generous grant from
the Foundation for Deep Ecology, Sausalito, California.

All Rights Reserved
© 2005 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted
in any form or by any means, electronic, mechanical, photocopying, microfilming, recording
or otherwise, without written permission from the Publisher, with the exception
of any material supplied specifically for the purpose of being entered
and executed on a computer system, for exclusive use by the purchaser of the work.

Printed in the Netherlands on acid-free recycled paper.

Contents

<i>List of Figures and Tables</i>	<i>xi</i>
<i>Series Editor's Introduction</i>	<i>xiii</i>
<i>Author's Introduction to the Series</i>	<i>lix</i>
<i>Preface by Bill Devall and Alan Drengson</i>	<i>lxv</i>
<i>Author's Preface</i>	<i>lxxiii</i>
I. The Long-Range Deep Ecology Movement	1
1. Nature Ebbing Out	3
2. The Shallow and the Deep, Long-Range Ecology Movement: A Summary	7
3. The Basics of Deep Ecology	13
4. Deepness of Questions and the Deep Ecology Movement	21
5. The Deep Ecology Movement: Some Philosophical Aspects	33
6. The Deep Ecology "Eight Points" Revisited	57
7. Equality, Sameness, and Rights	67
8. The Breadth and the Limits of the Deep Ecology Movement	71
9. The Apron Diagram	75
10. What Do We as Supporters of the Deep Ecology Movement Stand for and Believe In?	83
11. A Note on the Prehistory and History of the Deep Ecology Movement	89
12. Antifascist Character of the Eight Points of the Deep Ecology Movement	93
II. Values, Lifestyle, and Sustainability	103
13. Deep Ecology and Lifestyle	105
14. The Place of Joy in a World of Fact	109
15. Beautiful Action: Its Function in the Ecological Crisis	121

CONTENTS

16. Should We Try to Relieve Clear Cases of Suffering in Nature?	129
17. Sustainability! The Integral Approach	139
18. Expert Views on the Inherent Value of Nature	149
19. The Arrogance of Antihumanism	185
III. Deep Ecology and Politics	189
20. Politics and the Ecological Crisis: An Introductory Note	191
21. The Politics of the Deep Ecology Movement	201
22. The Three Great Movements	219
IV. Deep Ecology Practices:	
Integrating Cultural and Biological Diversity	227
23. The Encouraging Richness and Diversity of Ultimate Premises in Environmental Philosophy	229
24. The Third World, Wilderness, and Deep Ecology	251
25. Cultural Diversity and the Deep Ecology Movement	263
26. Population Reduction: An Ecosophical View	275
27. Migration and Ecological Unsustainability	283
28. Self-Realization in Mixed Communities of Human Beings, Bears, Sheep, and Wolves	291
29. Philosophy of Wolf Policies I: General Principles and Preliminary Exploration of Selected Norms (coauthored with Ivar Mysterud)	301
30. Deep Ecology and Conservation Biology	325
31. The Tragedy of Norwegian Whaling	329
32. Letter Sent October 1971 to the King of Nepal	335
V. The Significance of Place: At Home in the Mountains	337
33. An Example of a Place: Tvergastein	339
34. Some Ethical Considerations with a View to Mountaineering in Norway	361
35. Modesty and the Conquest of Mountains	365
36. The South Wall of Tirich Mir East	369
VI. Spinoza and Gandhi as Inspiration for Deep Ecology	379
37. Spinoza and Attitudes Toward Nature	381
38. Spinoza and the Deep Ecology Movement	395
39. A Systematization of Gandhian Ethics of Conflict Resolution	421

CONTENTS

VII. Understanding Naess's Unique Approach to Deep Ecology	447
40. The World of Concrete Contents	449
41. Gestalt Ontology and Gestalt Thinking	461
42. Reflections About Total Views	467
43. Notes on the Methodology of Normative Systems	483
44. Paul Feyerabend—A Green Hero?	499
VIII. Theoretical Dimensions of Deep Ecology and Ecosophy T	513
45. Self-Realization: An Ecological Approach to Being in the World	515
46. The Connection of "Self-Realization!" with Diversity, Complexity, and Symbiosis	531
47. Integration of the "Eight Points" into Ecosophy T	535
48. A Note on Definition, Criteria, and Characterizations	537
49. <i>Docta Ignorantia</i> and the Application of General Guidelines	541
50. Ranking, Yes, but the Inherent Value Is the Same: An Answer to William C. French	547
51. The Heart of the Forest	551
52. Metaphysics of the Treeline	555
53. Avalanches as Social Constructions	559
IX. Deep Ecology and the Future	561
54. Sustainable Development and Deep Ecology	563
55. Industrial Society, Postmodernity, and Ecological Sustainability	577
56. An Outline of the Problems Ahead	593
57. Deep Ecology for the Twenty-second Century	611
<i>Notes</i>	617
<i>References</i>	639
<i>Comprehensive Bibliography of Arne Naess's Works in English</i>	651
<i>Index</i>	671

List of Figures and Tables

Figures

1. Ecosophy T	53
2. The Apron Diagram	76
3. The Political Triangle	203
4. The Political Circles	204
5. Cartesian Coordinate System	205
6. The Political Axis	205
7. Normative System Diagram Showing Logical Priorities	309
8. Ecosophy T (repeated)	485
9. Integration of the “Eight Points” into Ecoosphy T	535

Table

1. Summary of Survey Responses	177
--------------------------------	-----

Series Editor's Introduction

Arne Naess — A Wandering Wonderer: Bringing the Search for Wisdom Back to Life

[The pre-Socratics'] attitude, in the main, was genuinely scientific whenever it did not merely embody the prejudices of their age. But it was not *only* scientific; it was imaginative and vigorous and filled with the delight of adventure. They were interested in everything—meteors and eclipses, fishes and whirlwinds, religion and morality; with a penetrating intellect they combined the zest of children.

From this point onwards, there are first certain seeds of decay, in spite of previously unmatched achievement, and then a gradual decadence. What is amiss, even in the best philosophy after Democritus, is an undue emphasis on man as compared with the universe.

Bertrand Russell, *History of Western Philosophy*

When the full scope of Arne Naess's philosophical contribution is examined carefully and placed in context, it will very likely be viewed as one of the twentieth century's most significant and enduring.¹ Naess has made bold and innovative contributions to conventional academic philosophy and social research, particularly in the areas of behaviorist epistemology, empirical semantics and communication theory, scepticism, scientific and cultural pluralism, Gandhi and Spinoza scholarship, normative systems theory (as a general approach for exploring premise-conclusion relations), and the very idea and relevance of total systems (total views in Naess's *lingua*). Perhaps even more significant—although one should not view it as distinct or decoupled—has been his commitment to reconnect philosophy to life experience. This effort is similar to Bertrand Russell's in that it has been particularly pronounced in later life. Naess, however, carries this com-

SERIES EDITOR'S INTRODUCTION

mitment to expand philosophy's sphere of concern to life in general and the Earth. Essential to this endeavor, is the mature Naess's radical initiative to reconceptualize reason expansively, to integrate reason with emotions and feelings *in practice*. In some cases this includes using mythopoetics to make a case or communicate a point.² What makes Naess so special is that even while paddling against the current, he exhibits tremendous optimism and openness, joy, and a disarming, infectious playfulness.

Naess strives to *live his philosophy*. For more than thirty years, he has sought to reshape the philosophical debate by drawing from and building on his previous work to outline a nondualistic, nonanthropocentric philosophy of life that affirms the ultimate unity and interdependence of all living beings, while maintaining their individuality. His philosophy celebrates the Earth's richness and diversity—both cultural and biological. That said, one of the main purposes of the *Selected Works of Arne Naess* (SWAN), however, is to provide you, the reader, with the resources to make your own informed judgment regarding the significance of Naess's philosophical legacy.

At age ninety-two, Arne Naess has lived a long life filled with wonder. In his words, he has “seen life”—traveling the world, spending significant periods of time on every continent. He has experienced the world somatically and intellectually in concert as one mind-body—as a being—and seen more than most of us can imagine.

When Naess was born, Archduke Francis Ferdinand was alive, automobiles were in their infancy, and most homes did not have running water. Home refrigerators had just begun to be produced. Television and computers were only imagined. Only a few years before, after being contemplated for millennia, the first controlled and sustained powered flight took place, ushering in a period of ever-accelerating transfer of materials and information, but not necessarily a commensurate increase in knowledge or wisdom.

Consider that Naess has lived through two world wars (and too many “limited” conflicts to count), the rise and fall of the Soviet Union and East Germany, the “liberation” of India and Pakistan, the onset of climate change, and the hastening of “global terrorism.” He has been the beneficiary of tremendous medical advances and unprecedented economic growth, and he has seen the ravages caused by escalating consumption, globalization, and disparities in both income distribution and access to resources. He is part and product of humanity's largest growth spurt. And he

SERIES EDITOR'S INTRODUCTION

has witnessed the most significant loss of cultural diversity and the onset of what may become the planet's greatest extinction crisis—but is surely the greatest extinction crisis ever caused by one of Earth's own species. Naess has also seen and, at times, participated in the many hopeful responses to these ills—the peace, social justice, and ecology movements; nonviolent actions to support antiglobalization efforts and protest dam building; voluntary simplicity; conservation biology; wildlands philanthropy; bio-regionalism; green business and architecture; ecological design, economics, engineering, and restoration; and sustainable agriculture, forestry, and fisheries management.

Everyone is influenced by the times and events of his or her day. The “prejudices of our age” filter into our lives and work more or less consciously and actively, but at a minimum they enter passively. What is the mature Naess's approach to philosophy, how is it a uniquely self-aware and responsive product of his day, and why should it be seen as monumental?

Naess likes to see himself as a “philosopher of life.” The thought of simply being an academic philosopher—living a life of the mind—makes him restless and uneasy. For Naess, “wonder” is both the point of departure for philosophy and the focus of the enterprise. He is the philosophical equivalent of a hunter-gatherer using his wits and intuition to seek out food (for thought) in a fecund landscape. As they were for the ancient Greeks, science and philosophy are inextricably intertwined for Naess. Science, as the application of reason through empirical investigation, cannot be separated from rational reflection on the nature of reason, and vice versa. For the mature Naess, though, philosophy and science are also distinct. Philosophy is the unique realm in which we take up the deepest, most profound, and most fundamental problems. From Naess's vantage, which defines philosophy openly and discursively, the questions that have fascinated and plagued people for millennia have not changed much and they are not likely to change significantly in the future.

Naess's view of philosophy includes the traditional epistemological question “What can we know?” and the ontological question “What main kinds of things are there?” But it also includes “How do we measure?” and “How do we know?” as well as “What is the relationship between the knower and the known?”³ These are questions that are likely to vary with cultural and social circumstances, but this does not, for Naess, imply cul-

SERIES EDITOR'S INTRODUCTION

tural relativism. By its nature, this view of philosophy runs counter to the dream of the logical empiricists; it cannot be restricted to investigations of “fact” or “logic.” It is imbued with fundamental valuations. Being a philosopher, for Naess, is thus a deeply personal and intimate matter that requires us to engage all of our powers and experience. It should also include questions such as “What are your aims in life?” and “What’s driving you?” as well as encourage a practice of deep and open argumentation by asking repeatedly, “Why do you hold that *p*?” in order to unearth underlying premises and hypotheses. For Naess, all these questions have an empirical component. He sees it as a duty for a philosopher to extend research into the creation and use of empirical methods to address these aspects, unless these questions can be adequately addressed by an existing empirical science, in which case it is fine for a philosopher to perform research here, but it no longer constitutes a *duty*.

In Naess’s view, philosophy is ultimately concerned with how *we*, through our experiences, perceive the world, the world’s relation to ourselves, and the basic features of the condition of people. It is the realm in which we pose sophisticated questions to address perennial problems, probe them from different angles (in Naess’s case, from as many angles as possible), and test and apply the insights to real life—to what we do and decide every day. Its purpose is not to arrive at definitive answers. The purpose of philosophy, rather, is to help us understand what *we* believe in from our innermost perspective, expand this perspective continually, and facilitate communication—so that we might contribute toward improving the state of affairs of the world.

While initially attracted to Bergson’s *les données immédiates de la conscience* (the immediate data of consciousness), Naess grew disenchanted when he recognized that one becomes lodged in an endless circular loop and never exits consciousness. Naess clearly believes that the unexamined life is not worth living (his life is a testament to Socrates’ edict), but he appreciates that disembodied, introspective examination comes at great peril. A mind-centered focus on “examination”—where subjects exist separately from objects, theory is isolated from praxis, and knowledge is decoupled from wisdom—very quickly degenerates into meaninglessness. Worse yet, separating people from and raising people above nature and the coevolutionary process that created us—and provides for our sustenance—can be inimical to life and the evolutionary process.

Nature, that which is, the reality of the pre-Socratics, is Naess's philosophical palette, not the "world" of his own consciousness as has become the norm with so many contemporary philosophers since Descartes. Popper and others posit the existence of three worlds that correspond to the development of our commonsense view of reality. World I is the physical world, the "external world," the world of our sensory impressions. World II is the world of all conscious experience, the psychological world of the "immediately given," which incorporates our feelings and intentions. World III emphasizes the logical content of reality. Naess finds these multiple views of reality unconvincing and potentially dangerous. With a worldview inspired by Spinoza's *Ethics*, he is fundamentally opposed to the notion of multiple worlds.

Naess's mature philosophical approach and contributions are shaped by full engagement with a relational reality, in which no firm subject/object, substance/property, universal/particular, fact/value dualities exist. John Muir's famous, deceptively simple aphorism sets the stage: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." Reality as we experience it, according to Naess, is a dynamic, multilayered manifold of hierarchically related gestalts—of which we are always a part. It is the opposite of atomism. Contrary to the dominant, Western way of viewing reality, there are no extrinsically connected discrete objects or "things in themselves" in the sense of Kant's *Ding an sich*. With Naess's "gestalt ontology," there is no dualistic "I" standing outside of reality looking in. Living beings, individuals in the sense of Spinoza's modes, are spatiotemporal manifestations of "one substance," nature or reality. As Naess points out in *Freedom, Emotion, and Self-Subsistence* (SWAN VI), Spinoza's medieval terminology of substance, mode, attribute, God, and Nature is dispensable. In addition, Naess goes on to characterize "living beings" broadly to include individual organisms as well as ecosystems, rivers, mountains, and possibly Earth (Gaia).

Naess's view of reality calls for a gestalt shift. His gestalt ontology does not stop with gestalt psychology's simple notion of holism, where the whole is more than the sum of the parts. It goes on to add that the internally related subordinate gestalts are themselves more than mere parts. There are no parts as parts or wholes as wholes; higher-order wholes are not reducible to lower-order wholes. The concrete contents of reality have gestalt character. For Naess, we experience reality spontaneously and our

SERIES EDITOR'S INTRODUCTION

experience of the world is made up of gestalts. “[This] is the world we experience. Nothing is more real.”⁴ People create abstract structures to reflect on or analyze spontaneous experiences and their structure; they are the interrelations between spontaneous experiences. Mind and body are mental contrivances and conveniences—abstract structures in Naess’s parlance—for helping us to describe, model, or understand certain states of affairs. They are not the contents of reality. Only individual occurrences of spontaneous experience make up the concrete contents of reality.

What are the consequences of Naess’s “ontological realism” as expressed in the form of gestalt ontology? First, living organisms have different levels of access to reality, based on their capacities, experiences, and backgrounds. This implication of “reality is one” plays a central role in the mature Naess’s approach to philosophy of science. One of his main thrusts is to undermine the claim that the exact physical sciences show all that is, that they have a privileged view of reality. In his view, science creates extremely abstract structures of what is real, but those structures do not actually *describe* any of reality’s concrete contents (descriptions are themselves normative). Jakob von Uexküll, the famous ethologist of the early twentieth century, whom Naess read closely in his youth, helps clarify this notion. “As the spider spins its threads, every subject spins his relations to certain characteristics of the things around him, and weaves them into a firm web which carries his existence.”⁵

Different people experience reality differently, yet we often, incorrectly, speak of *different realities* as if they existed. By the same token, identical accounts of reality in no way imply verification of that view by correspondence; from Naess’s perspective, such accounts by themselves are merely a sign of cultural poverty. “God” could have created the Earth and life 6,000 years ago, but the evidence to support this case is thin and the evidence to support evolution is stronger, in part because biological science and paleontology generally employ a greater level of depth of intention and thus aspire to maintain higher standards for the evaluation of evidence. Radical pluralism and scientific possibilism do not imply scientific or ethical relativism.

There are at least four other key implications of Naess’s gestalt ontology. First, the existence of one, interdependent reality tends to curb solipsism. Second, the world we live in spontaneously can no longer be characterized as merely subjective. Expressions such as “the social construction of

nature" become oxymoronic. Third, individual organisms exist as knots in a biospherical web or net. Reality is not anthropocentric; it is not particular to humans. Fourth, humanity can no longer justifiably be seen in opposition to a separate object—nature. This insight tends to temper any "natural" tendencies toward anthropocentrism. As with Leopold's Land Ethic, people become plain members and citizens of the biotic community, albeit ones with unique powers and proclivities and thus special responsibilities. We are all individual beings, yet we vary in the extent to which we are integrated into the whole.

Humans are massively altering the gestalt character of reality, diminishing it, making it less complex. We do this, Naess argues, without necessarily recognizing we are doing it or the extent to which we are doing it. Thus, we are unable to evaluate the tradeoffs of making such decisions. Naess argues that we generally act simply according to how we "see" reality, but there are aspects of reality that may not be available to us. These aspects are no less there because they are currently unavailable to us, yet they can be destroyed very easily. Sometimes we also confuse our abstract structures of reality (models, data, concepts, etc.) with the contents of reality and vastly underestimate the complexity of internal relations between gestalts, leading ourselves to believe, incorrectly, that higher-order wholes can be reduced to lower-order wholes. It is Naess's hope that by embracing gestalt ontology, we are encouraged to cultivate our opportunities and faculties for experiencing reality more fully—for experiencing more complex, higher-order gestalts. It is also his hope that we will openly and more carefully consider, in advance, how a proposed research program, action, or decision might affect other peoples' (or other life-forms') opportunities for rich spontaneous experiences (consider, for example, the possible impacts of ostensibly beneficial research on nuclear fission or molecular biology). In the end, however, we should remember Naess's own caution—his description of gestalt ontology is itself an abstract structure. As Naess says, "For me reality has always been something slippery to handle. I seem to grasp it firmly, but like an eel, or even a small lively trout in shallow water, firmness of grasp does not guarantee against escape."⁶ But does reality really have gestalt character?

Truth—as in *the* truth—is not a defensible notion for Naess. For too many academic philosophers, wonder has been extinguished and replaced

SERIES EDITOR'S INTRODUCTION

by a belief that definitive answers have been found, that the original, initially vexing questions can be laid to rest. Naess is under no such illusion. He views humans as essentially fallible and he sees this domain of fallibility as extending to mathematics and formal logic. This may be why he so freely returns to previously explored material (sometimes just after writing it) and looks at it afresh, with new and frequently competing and even conflicting insights. For Naess, truth is something we seek continually without expecting or believing that it can be found. He seeks peace of mind (*ataraxia*) by suspending judgment (*epoché*). While necessity requires him to take firm positions in life, he often resists taking such positions in his written philosophy. Having reached a general state of mental suspense (*isothenia*), he prefers, as a mature sceptic, anticipating his own tendency to come up with counterarguments and counter-counterarguments, to suggest alternative paths, inspire new ways of looking at things, and foster informed, open-minded debate. This *zetetic* inclination, although nascent in many of his earlier works, was made explicit and became a central theme in his philosophical writings in the 1960s.

For Naess, passivity has no place in philosophy or life. In his famous debate with Sir Alfred Ayer, Naess defines Spinoza's *amor intellectualis* as a "kind of loving attitude towards what you have insight into, while considering it in an extremely wide perspective."⁷ For the mature Naess, *amor intellectualis* involves using his technical and intellectual training to articulate, in direct and forceful ways, his attitudes and evaluations on matters of practical consequence. Like Spinoza and Gandhi, Naess is concerned with human salvation in this world, but Naess, with his concept of "wide-identification," expands this concern to both humankind's relationship to life in general and the self-realization of all life-forms for their own sake. Whether it be understanding how lay people conceptualize truth or experts characterize democracy; considering how our approach to science not only shapes how we do science, but the nature of scientific outcomes too; using philosophy to improve practical communication; facilitating thoughtful debate on the potential dangers of Norway joining the European Union; or discussing the ethics of climbing, the meanings of sustainable development, or distinctions between different approaches for addressing the ecological crisis, Naess seamlessly connects philosophical questioning to activeness in relation to the questions.

SERIES EDITOR'S INTRODUCTION

Naess's philosophical career can be seen, in one sense, as an attempt to bridge C. P. Snow's two cultures. Believing that the central questions of philosophy are here to stay, he has developed his philosophy over seventy years in part through his effort to relate these questions to the issues of his rapidly changing, trying, and tumultuous era. Naess's lifelong commitment to integrate interests in nature, science, and logic is evidenced by the mature Naess's championing of philosophical approaches in which both metaphysics and science contribute to all-embracing systems of thought. This approach is particularly prominent in Naess's development of normative systems theory, a strategy for promoting systematic reflection on premises and conclusions. Recognizing that all philosophical questioning must stop somewhere, Naess calls the essential intuitions that serve as bedrock assumptions for our total views, ultimate norms or ultimate premises. Further, recognizing that our philosophical conclusions as well as our lifestyles and everyday actions often appear inconsistent with these ultimate premises, Naess has developed a strategy for using premise-conclusion strings to help identify potential norm conflicts as well as to help assess whether potential agreements and disagreements are real or pseudo. Use of this technique figures prominently in Naess's approach for improving communication, in his approach for exploring both the philosophical basis for Gandhi's *satyāgraha* (active nonviolent resistance) and the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," as well as in his own Ecosophy T.⁸

With regard to total views—broad philosophical systems like Spinoza's, which attempt to communicate our deepest insights and communicate views of life—Naess argues that although the existence of complete, explicit total views is absurd, it is equally absurd to presume to criticize a total view without adopting one (at least implicitly). After relinquishing the possibility of creating a consistent empirical theory of knowledge, Naess came to believe that any theory of knowledge presupposes all major philosophical disciplines, at least on the metalevel. One cannot have a theory of knowledge without presuming a particular reality, at least implicitly, and this necessitates having an ontology, metaphysics, ethics, and so on. This has practical consequences too. We never simply act solely as a philosophy professor who specializes in logic or ethics; we are always, at least partly, mother, daughter, lover, scientist, . . . , and philosopher. If we accept

SERIES EDITOR'S INTRODUCTION

the premise “For every decision we, explicitly or implicitly, take all things into consideration,” then the notion of total views or total normative systems can be seen as very “useful fictions,” which, if articulated, might help us to improve decision making.

Naess is careful to point out that he sees his own total view and others as fragmentary and constantly evolving—ever “on the way.” Moreover, even if we could have a completely formed and integrated total view, we could not count on being able to articulate it. There will always be a tension between the Spinozistic goal of clarity and the pragmatic reality that in this world we can never wait until all the facts are in. None of these issues, however, justifies abdicating our responsibility to try to articulate our own total views. The mature Naess is a radical pluralist. He believes in defending coherent systems, without claiming that their relation to reality is definitive. While he is committed to the importance of models and systems, he is opposed to the idea that there could or should be a definite worldview. Naess’s hope is that there will be no definite scientific worldview in the future.

No Western philosopher since Descartes—except perhaps Spinoza, who has also been a primary inspiration for Naess—has had the potential to help us drastically reshape our relationship to each other and life in general: not by spelling out *a* clear and coherent total system—to be taken as *the* truth—but by challenging us to articulate our fragmentary total views and connect the abstract problems of philosophy to issues of contemporary social and political conflict. In Naess’s view, “[t]he full meaning of a theory can only reveal itself in practice, and practice is blind without theory.”⁹ To be a philosopher of life, one must embrace both theory and practice and engage them in dance.



In Norway, Arne Naess is regarded as a national treasure, a seeker and a seer, a “minor prophet,” in his own words. His radical pluralism and endorsement of diversity are demonstrated by his complex character. He has a proclivity for being aloof and charming, somber and joyful, accountable and carefree, arrogant and modest, slippery and precise. In a world of contradictions—breathtaking beauty *and* ineffable squalor and suffering—Naess is no exception. He is an antiguru guru. He strives for high levels of consistency and integration in his philosophy but accepts that in his personal life he cannot live up to his philosophical systems’ requirements. He strives for definite-

ness of intention, yet he appreciates vagueness and eschews dogma, refusing to be pinned down to a particular viewpoint or placed in a particular philosophical camp. This stance is further supported by his sometimes maddening tendency to revise, revise, and re-revise. As a consequence, one cannot go to any of his books or articles and find the “definitive” Arne Naess. He is a troublemaker too, but the kind of troublemaker people want to have around because he challenges orthodoxies with an elfin irreverence. Naess stands out because his frequently outlandish and controversial views are felt deeply, reasoned carefully, and conveyed playfully.

Naess has had a profound influence on Norwegian academic life and the society as a whole. From 1939 to 1954 he was Norway's only professor of philosophy. He was chiefly responsible for organizing courses for the *examen philosophicum*, introductory examinations in logic, methodology, and history of philosophy that an entire generation of undergraduates (roughly 100,000 people) were required to take, regardless of their disciplinary focus. His unique paradigm of inquiry—emphasizing open-mindedness, empirical analysis, pluralism, a thorough grounding in philosophy and the history of ideas, and a vital concern for contemporary problems—is credited with shaping the intellectual fabric of postwar Norway. At a press conference for Naess's eightieth birthday, the Norwegian Minister of Education testified to the significance of the Norwegian version of Naess's *Communication and Argument*, one of the primary texts for the *examen philosophicum*. “We have all read it. We *still* cheat in argumentation, but now with feelings of guilt.”¹⁰

Naess is also credited with rekindling the study of philosophy in Norway and with forming the Oslo school of philosophy. The section on Scandinavian philosophy in *The Encyclopedia of Philosophy* elaborates:¹¹

The philosophical milieu in Norway today [circa 1967] is determined by an internationally known and original philosopher. . . . Arne Naess . . . is the originator of a radical type of empirical semantics and the leader of the so-called Oslo group. . . . The empirical methods applied by the Oslo group employ carefully worked-out questionnaires. By the help of such questionnaires and by teamwork, philosophers of the Oslo group have carried out investigations of such expressions as “truth,” “democracy,” and “private enterprise.” . . . If it is correct that Norwegian philosophy has had a dead period,¹² it is equally correct to assert that, primarily because of Arne Naess, Norwegian philosophy is now in the middle of a period of life and growth.

SERIES EDITOR'S INTRODUCTION

When asked to comment on this passage, Naess was emphatic about inserting an addendum to the last sentence.¹³ He was proud to convey that contemporary Norwegian philosophers pursue a wide variety of directions and employ a diversity of approaches, many independent of Naess's own line. This point is borne out by the more than forty-four permanent teaching positions currently at the University of Oslo's Institute of Philosophy and the broad spectrum of approaches these philosophers pursue, from the analytic tradition to phenomenology and from existentialism to hermeneutics. As one of Naess's successors, Alastair Hannay, in his section on Norwegian philosophy in the *Oxford Companion to Philosophy*, has commented, "Norway enjoys a varied and vigorous philosophical life. . . . Philosophy's place in Norwegian academic life, as in the society at large, is due in large measure to Naess."¹⁴

The reach of Naess's contributions to philosophy and social research extends well beyond Norway. Significant international recognition has also come his way for these contributions. He has received the Peer Gynt Prize awarded by the Norwegian Parliament (2004), the Nature and Environment Prize from the Nordic Council (2002), the Nordic Prize from the Swedish Academy (1996), the Mahatma Gandhi Prize for Non-violent Peace (1994), and the Sonning Prize for contributions to European culture—Denmark's version of the Nobel Prize (1977). He has even been honored by five festschrifts, one each for the occasions of his seventieth, eightieth, and eighty-second birthdays and two for his eighty-fifth birthday.¹⁵ He is the founding editor of the influential journal, *Inquiry*, created to promote collaboration between philosophers and social scientists. He is also a renowned mountaineer and climber, an occasional nonviolent political activist, and father of the deep ecology movement. His social concern, sense of wonder, and trickster nature have all contributed to his success at numerous academic posts around the world—preferably near mountains or deserts—from Berkeley to Jerusalem and Helsinki to Hangzhou. He is, to this day, still a frequent international speaker.

Even with this high level of accomplishment, the significance of his work as a whole—as a gestalt—has yet to receive broad-scale appreciation outside of Scandinavia. There are many explanations for this situation.

The overarching reason has likely been the general inaccessibility of his oeuvre. This inaccessibility has many facets. Naess has been incredibly pro-

SERIES EDITOR'S INTRODUCTION

lific, producing over four hundred publications, more than thirty of which are books. These publications span topics from argumentation theory to zeteticism, with adventures along the way at such seemingly incongruous destinations as climbing ethics, cultural anthropology, and deep ecology. His range of topics—in abundance, breadth, and depth—is trying, at best, for our increasingly compartmentalized and specialized academic communities.

In addition, the bulk of his most significant works have been out of print for quite some time. Many of the earlier editions of the books were edited poorly and documented sparsely. A significant portion of his important articles and book chapters appears in obscure or difficult-to-find books and journals, and much of his work has remained unpublished (at least two hundred papers and several book-length manuscripts). Naess's main works appear in three primary languages, German, Norwegian, and English, although he has also written in Danish, Swedish, and French. Finally, Naess's prose can be dense and opaque, if not downright confusing. Although this trait is by no means unusual for a philosopher, when blended with Naess's appreciation for vagueness and ambiguity, his aversion to authoritative stances, and his tendency to revisit topics by reconsidering earlier viewpoints, the already high entrance fee can become prohibitive.

The boundless range of Naess's interests and the general inaccessibility of his entire oeuvre have led some scholars to view him rather pejoratively as a dilettante. Some of these critics view him as flitting from one area of interest to another, not mining any to its logical conclusion; some see him as throwing away a great talent in logic; some view his social research, especially his work with questionnaires on lay people's and experts' perceptions of philosophical concepts and his use of statistics, as outside the realm of serious, professional philosophy; and still others see him as inappropriately conjoining his philosophy with activism. His breadth has even led a few of the more extreme critics to dismiss his work out of hand. Although some of the criticisms detailed above do have merit, in my view Naess gives the dilettante a good name.

To address this range of concerns, the *Selected Works* project was conceived. The project was the brainchild of Douglas Tompkins. "Miracle Doug," as Arne refers to him, is the founder of the Foundation for Deep Ecology and is himself a renowned climber and kayaker in addition to being a wildlands philanthropist who has helped protect immense tracts of

SERIES EDITOR'S INTRODUCTION

land in Chile and Argentina, some as large as Yosemite. The *Selected Works* would have simply remained a “great idea” without Doug’s generosity and support. The project was initiated in 1994 and commenced editorial work in 1996 under my direction.

In the introduction to his *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, and Sartre* (1968), Naess decries the condition whereby the philosophical life of an individual is set by the local philosophical scene, by provincial biases, or by what is easily accessible.¹⁶ Such accidents of environment should not, in Naess’s view, play a pivotal role in shaping a budding philosopher’s development. I see the *Selected Works*, at least in part, as a response to this predicament.

The purpose of the *Selected Works* is to bring—for the first time—the full scope of Naess’s philosophical contributions to the English-language audience in one collection of highly readable and meticulously edited volumes that adhere to the highest standards of contemporary academic philosophical publishing. The *Selected Works* is, however, by no means exhaustive; it is not a collected works.¹⁷ We have simply aspired through careful selection to offer a representative and relatively expansive collection of Naess’s principal writings. As such, the *Selected Works* is the definitive repository of Naess’s oeuvre, chronicling the development and progression of his thinking for scholars, students, and critics alike.

In the remainder of this essay, I attempt to sketch briefly one possible version of an intellectual biography for Arne Naess. I endeavor to trace some key influences on Naess’s philosophical development, discuss the evolution of his philosophical outlook, and touch on the relevance and significance of each volume in the *Selected Works*. I close with a short note on our editorial approach.

From Scientism to Wisdom: Toward a Philosophy of Life

The philosophic researcher should be task-minded, not discipline-minded,
and should follow his questions wherever they lead.

Arne Naess, “Norway”

Arne Dekke Eide Naess was born in 1912 in the dining room of a large house with a wild, expansive garden. The house was on the outskirts of Oslo in Slemdal, a short walk from where Naess lives today. Arne was the

SERIES EDITOR'S INTRODUCTION

unplanned fourth child of a wealthy family from Bergen. Before he was a year old, his father, who was ill with cancer, had died. Overwhelmed, his mother, Christine, entrusted little Arne to the family's governess. This is where his first memories begin.

Arne speaks of Mina, his governess, endearingly. She is described as satisfying little Arne's every wish, be it procuring live flies for his bath or bringing a trunk filled with bottles on a family trip so that he could continue his water-play experiments. Sometime before Arne was four, Christine dismissed Mina, ostensibly for spoiling Arne too much. This initiated a deep rift between Arne and his mother, which was never to be mended. It also set in place a sense of loss, alienation, and resistance to emotion that profoundly influenced Naess's early personal and philosophical development.

Significantly later, after an intensive six-day-a-week, fourteen-month psychoanalysis with Freud's noted collaborator Dr. Edvard Hitschmann, Naess came to understand his impenetrable shell that keeps others at arm's length (*Panzercharakter*, in Freudian terms) as resulting from a reaction to his mother's unreliability and emotional hysteria. His effort to keep his mother at a distance morphed into a general aloofness and distancing. The adolescent Arne began to favor an "objective," bureaucratic approach to language. He saw art, music, and poetry as being seduced by emotion, by beauty and form, but viewed science and philosophy as realms from which such emotions should be banished. This prejudice would take decades to overthrow. At this time he also developed a single-mindedness and resistance to inconvenience and pain that to this day make it easier for him to concentrate and focus. As Hitschmann pointed out, however, this inward turn has a flip side, a certain self-destructive or masochistic bent that was later to plague him, particularly in his relationships with women and his children.

Much of Arne's early childhood was spent at the seashore, and this is the period in which his interest in nature and experimentation began to flourish. Feeling somewhat distanced in his relations with people, he identified with nature, especially little sea creatures. He waded in shallow water for hours, inventing experiments to test nascent hypotheses about the behavior of small sole, tiny translucent shrimp, and crabs. He describes these experiments as engendering an early enthusiasm for diversity and a tendency to suspend judgment on the nobility or status of different beings. He

SERIES EDITOR'S INTRODUCTION

loved these creatures for their unique qualities and their amusing adaptations and limitations. They inspired a certain egalitarianism, which took hold and later influenced his philosophical approach in profound ways.

Young Arne was restless. He had an early penchant for “collecting” and organizing large groups of numbers, stones, and stamps. He started climbing trees in the family’s little “wilderness” before he was five and soon progressed to big firs and spruces. He found that he enjoyed being able to watch people from above. Arne outgrew trees fast. His desire for perspective and the opportunity to survey broad areas was rapidly transferred to mountains. At the age of five, he began going to his mother’s small mountain cottage in the town of Ustaoset, high in the Hardangervidda between Oslo and Bergen. By the age of eight, he had adopted Hallingskarvet, a bread-loaf-shaped mountain about three and a half hours’ walk from Ustaoset, as his surrogate father. In his teenage years, this obsession for expansive perspectives translated into a lifelong passion for mountaineering. When Naess was sixteen or seventeen he climbed the 106 tallest mountains in Norway. It was around this time that he was first introduced to Spinoza’s *Ethics* by a Norwegian Supreme Court justice that he met in the mountains. Naess’s desire for a broad and open perspective, for seeing things in totalities (god’s-eye view), translated to his studies. Young Naess read widely in economics (especially value theory), science, philosophy, history of philosophy, and the Earth’s biological history.¹⁸ This commitment to cultivate an ever-expanding perspective would later potentially influence his approach to philosophy.

Arne’s youth was spent captivated by piano, study, and mountains. His decade-older brothers took it upon themselves to toughen up their timid younger brother, as well as introduce him to the ways of the world and scholarship. When Arne was only eight, his eldest brother, Ragnar, left for America to study for a Ph.D. in chemistry at MIT. Ragnar later went on to receive one of the Harvard Business School’s first degrees and became a successful stockbroker in the United States. Erling studied economics and went on to create an international shipping empire; he became famous for his assistance to the Norwegian government-in-exile during the Nazi occupation. His sister, Kiki, married a German doctor and after the Second World War returned to Norway to become a physical therapist. From Kiki he learned the power and significance of offering encouragement to others.

SERIES EDITOR'S INTRODUCTION

During his early years and well into adulthood, Arne's tight-knit relationship with his siblings provided security and support for him to "find his own way" — *sva mārga*, to use one of his favorite Sanskrit terms. Although he tended not to seek their financial assistance, his wealthy and generous brothers offered a sense of comfort, safety, and the occasional extravagance, which in later life made it easier for him to live his bon mot, "simple means, rich ends."

Naess studied philosophy, mathematics, and astronomy at the University of Oslo. At nineteen, after completing the equivalent of an undergraduate degree, he left Oslo to continue his studies in Paris. Naess was put off by the adoration Bergson received in Paris, but ultimately left to seek broader vantage points, cheaper living, and better climbing opportunities. After completing two master's theses at twenty-one, one exploring discussion about the concept of truth and the other exploring the use of behavioral psychological principles to judge truth validity, Naess left Oslo again, this time for Vienna. In Vienna he took master classes in piano, where, following his trickster nature and as a response to the strict taskmaster Fuchs, he "learned" new material. When he ran out of pieces he had long since mastered, he quit. Thinking that it was necessary for philosophers to have high levels of self-knowledge, he underwent intensive psychoanalysis with Dr. Edvard Hitschmann. As a part of that process he assisted with the treatment of patients in a psychiatric hospital and developed tremendous empathy for the suffering of humankind. While in Vienna, he was also warmly welcomed at the famous Schlick seminar.

The logical empiricists' friendly, equiminded approach to discussion made a great impression on Naess, but he was not equally affected by their ideas.¹⁹ The young Arne was impressed by the preciseness, empirical nature, and lack of emotion in science—he wanted to practice philosophy with a scientific bent and he wanted to test philosophical hypotheses with experiments. He was already interested in perennial philosophical problems and did not believe that most of them were ultimately pseudoproblems that could be solved by investigating inconsistencies in language. His most significant philosophical issue with the logical empiricists was not that they were empirical, although he believed they were misguided in thinking that any philosophical problem could be wholly empirical, but that they were ultimately antiempirical in their belief that a logical gram-

SERIES EDITOR'S INTRODUCTION

mar of language was more suitable for investigating the use of terms than statistical analysis of their actual use. Naess's detailed critique of the logical empiricists' position and reflections on his personal experiences attending the Schlick seminar appear in volume VIII. In this critique, Naess expresses a concern that in their interpretation of terms, many philosophers (not just the logical empiricists) were artificially constricting the range of possible interpretations and thus unintentionally reducing potential insights regarding the diversity of tenable positions on problems of vital concern. This perspective presaged his later views, particularly those expressed in *Interpretation and Preciseness* (SWAN I), and his later approach to cultural anthropology and philosophy of science. Naess sums up his general perspective on the state of philosophy at the time with the following remark: "The turn of (Western) philosophy in [the twentieth century] towards language rather than cosmos, towards logic rather than experience in the broadest sense (like that of William James), is a turn into a vast blind-alley."²⁰

While in Vienna for fourteen months in 1934 and 1935, Naess made final revisions to his doctoral thesis, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior).²¹ Although Naess drew inspiration early on from Russell and Whitehead, his doctoral thesis can be seen, in part, as support of the American Pragmatists (James and Dewey) in opposition to Russell and early Wittgenstein. According to Dewey, the main purpose of his philosophical writings was "to reintegrate human knowledge and activity in the general framework of reality and natural processes."²² Naess did just this by creating a radical and unique approach for exploring how high science is performed, a sort of science of science. At this point, Naess believed it was possible to use such an approach to obtain a complete account of all science within one system. Inspired by the ethologist Uexküll's "special biology" (*Umweltforschung*), Tolman's "objective" behavioral psychology ("molar" behaviorism), and the cultural anthropologist Malinowski's work on speech and nonverbal behavior, Naess took on the standpoint of a neutral, nonparticipant spectator and outlined a program for an empirical metascience of science, an ethological approach to epistemology of science.

Naess used the idea of a dispassionate visitor from another solar system coming to study Earth-based scientists to demonstrate the possibility of completely describing both the activity of researchers and the contents of

knowledge without drawing on the subjective models that governed traditional epistemology and presupposed knowing subjects or minds. The idea was to study or rather “witness” science similar to the way experimental psychologists study rats, but without falling into the trap of imposing their own experience of reality and their preexisting conceptual models of reality (“maze epistemology”), or their scientific pretensions. In the view described in *Erkenntnis*, knowledge is cognition—it is an activity with intention—and this helps to dismantle the subjectivist dualism between the content of knowledge and the activity of research. Naess’s interest was in describing these patterns of research activity. He argued that the *terminology* associated with scientific activity—which is bound to the subjective-reality model—changes in leaps and bounds, not the *patterns of research activity*, which are in constant, but gradual, flux. With this argument that change in science happens gradually, by generalization and differentiation, Naess foreshadowed his response to Kuhn well before *The Structure of Scientific Revolutions* was published in 1962.

With *Erkenntnis*, Naess also anticipated ideas that later became prominent in linguistic philosophy, such as the importance of ordinary language over formal systems and the importance of using observation of contrasts and discriminations to build up understanding of systems. In the end, presaging his own radical pluralism to come, Naess seems to relax his early position on the importance and possibility of creating a metascience of science from the “far outside” and ultimately comes to view subjective and behavioral models as two different point-of-departure formulations in an indefinite plurality of equally valid approaches for a metascience of science. This refined perspective is taken up in Naess’s 1965 article “Science as behavior” (in SWAN IX), which returns to the prospects and limitations of creating a behavioral metascience to study the scientific enterprise, but this time from the “near outside.”

At age twenty-four, after receiving his Ph.D. from the University of Oslo for his work on science as behavior, Naess returned to his interest in the problem of truth. A particular concern was the inadequacy of philosophers’ intuitive methods for capturing how lay people conceived and used the term *true*. In 1937 and 1938 he developed and tested an empirical approach for using questionnaires and statistical analysis to investigate non-philosophers “commonsense” views on the notion of truth. He then related

SERIES EDITOR'S INTRODUCTION

these notions to philosophers' theories of truth. Naess found an amazing diversity of views among the amateurs. He also found that their views, although typically devoid of philosophical pretensions, generally covered the views represented by professional philosophers. This work elicited substantial controversy, most of which came from philosophers who viewed it as undignified to use questionnaires and statistics to investigate one of the great problems of humanity. Naess's results were published as *"Truth" as Conceived by Those Who Are Not Professional Philosophers* (1938). A summary of this work is presented in Naess's "Common Sense and Truth" (in SWAN VIII). Naess's continued application and refinement of these techniques would evolve into empirical semantics.

In 1937 Naess fortified his lifelong fascination with the arctic climate Hallingskarvet by building Tvergastein, his now-famous rustic and remote hut, at its base, a three-and-a-half-hour trek from the train station at Ustaaset. He outfitted the hut with Rube Goldberg oil lamps that also served as stoves for warming tea and with an eclectic library of teach-yourself language manuals, Sanskrit-English dictionaries, astronomical and wildlife field guides, novels by Dostoyevsky and Ibsen, letters of Spinoza, and a complete philosophy library. Following his passion for amateur science he also created "institutes" of petrology, chemistry, zoology, hydrology, and botany at Tvergastein. Naess has written the bulk of his work at Tvergastein and spent the equivalent of about twelve of his ninety-two years living there. The enormous open views at Tvergastein afforded Naess the distance and perspective he so craved while insulating him from philosophic fashion and dogma. Here he had the luxury, freedom, and good fortune to pursue his own interests free from the banalities and distractions of academic life. After completing what is now Tvergastein's main room, Naess went on to perform postdoctoral research at Berkeley (1938–39) with the pioneer of empirical psychology, E. C. Tolman. At Berkeley, he went from studying the behavior of rats faced with many possible alternatives to studying the behavior of the scientists studying the rats.

Naess returned to Oslo in 1939 to be appointed to the University of Oslo's Chair of Philosophy at the age of twenty-seven. On April 9, 1940, German forces invaded Norway; it would remain under Nazi rule for the next five years. This was a harrowing time for academics throughout Europe. Arne tried to maintain his unruffledness, pouring himself into re-

SERIES EDITOR'S INTRODUCTION

search and curricular reform initiatives intended to widen and expand the perspective of university undergraduates. He tried to stay at Tvergastein often, and this afforded him some peace and solace in a world of great tension. Before long, however, even he was drawn into the resistance movement. In the fall of 1943 he played a central role in foiling a Nazi attempt to deport University of Oslo students to concentration camps for “reeducation.” The University was subsequently closed and Naess became even more committed to the resistance movement and his research. By this time he had developed great admiration for Gandhi’s catalytic 1930 *satyāgraha* campaign, the march to Dandi in protest of the British salt tax. Naess was greatly impressed with Gandhi’s idea of trying to meet one’s opponent in a manner that would calm passions and facilitate truthful communication. He thought such an approach could have had a significant effect on quenching the Nazi expansion, *if* the necessary infrastructure to support *satyāgraha* had been created in European countries. After the war, Naess used these insights in his efforts to bring together suspected torturers and the families of torture victims to gain a sense of closure on the fate of their loved ones—and to avoid having the “traitors” subjected to equally horrid persecution. In 1948 Naess was invited to be the scientific leader of a new UNESCO project created to explore ideological controversies between the East and the West. He was soon off to Paris again, this time to pursue his interest in using philosophy to address questions of social and political importance.

The Cold War was a tinderbox and two core ideological conflicts revolved around use of the terms *democracy* and *freedom*. Naess was asked to address both but countered that UNESCO’s requirement that he deliver a report within one year made it essential for him to consider *democracy* first. His goals were to clarify what people mean when they use the term *democracy* and to understand the causes of ambiguity and confusion that result from its use. After an extensive literature review, which chronicled historical usage of the term, Naess and his assistant, Stein Rokkan, prepared a thirty-question survey that was distributed to almost 600 international experts in the fields of philosophy, law, history, political science, sociology, economics, communications, and logic. Naess used the roughly 100 replies to create an empirical study of “agreements” and “disagreements.” The study demonstrated *democracy*’s richness, diversity, and multiplicity of

SERIES EDITOR'S INTRODUCTION

meanings and thus undermined its misuse in both the East and the West. This incited detractors from every ideology, who roundly criticized the resulting report, *Democracy in a World of Tensions*, which according to Naess “was promptly sold out and never reprinted by UNESCO due to the politically dangerous character of its items.”²³ Naess’s “Analytical Survey of Agreements and Disagreements,” along with two other pieces on ideological convictions and rationality, appears in SWAN IX.

The UNESCO democracy study was the first and last international, large-scale application of Naess’s empirical semantics approach. He was originally interested in doing another study on “cultural diversity,” but neither this nor the “freedom” study came to fruition. Naess learned—much to his chagrin, and as his superiors had warned—that UNESCO was a place for writing reports; it was no place for conducting research. Naess’s frustration with the UNESCO experience and his wanderlust for the perspective of mountains led him to daydream first, and then to “pursue non-essentials”:²⁴

The arguments against abandoning the imaginary joys of the Himalayas for an actual expedition seemed strong to me, and so they still do. But in the autumn of 1948 the longing for the mountains pushed aside all sensible considerations. For the first time since I was twelve years old, I had to do without a summer holiday in the mountains. The safety valve guarding one against exaggerated climbing expeditions was thus removed. Added to this came the great disappointment in my own work. Lured by UNESCO’s plans of philosophical research into international ideological conflicts, I had been tied up in Paris for nine months. Such large-scale extravagant schemes prove, however, impracticable. Too much nationalism and too little belief in research prevented UNESCO from getting the number of nations to subscribe to such long term schemes. By the way of compensation, I indulged at night in delightful trips to the Alps. As the situation got worse, this was, however, not sufficient compensation; the material was exhausted. Then my fantasies took me to the Caucasus. Later I had to go all the way to Persia, Afghanistan, Hindu Kush and India, and so I was committed.²⁵



Although Naess’s research interests and total view continued to evolve after 1953, the general philosophical approach of the mature Naess, outlined at the beginning of this essay, was basically in place. Naess has described his

philosophical work as falling into four periods or phases. From the mid-1930s until about 1940, he focused on philosophy of science. Then until about 1953, he concentrated on empirical semantics. A short period, surrounding the publication in 1968 of his major work on the zetetic scepticism of Pyrrho, ends when, at the pinnacle of his philosophical career, he sought early retirement in 1969 to devote himself more fully to ecological issues and activism. Naess has commented that this effort to be more actively engaged in social and political conflicts reflects his desire "to live rather than function." This view adequately reflects coarse, general trends, but it fails to do justice to Naess's philosophical approach, which has him mine a larger range of topics and return to them in a helical fashion throughout his life. I would rather describe his work as falling into thematic areas that were picked up, sometimes put on ice, but returned to periodically throughout his life. Although I concur that the period after his formal retirement can be seen as emphasizing ecological philosophy and activism, the two decades between 1960 and 1980 also represent a period of considerable productivity on conventional academic philosophical topics. It was in those decades that Naess produced important work, especially, on scientific and cultural pluralism, Gandhi and Spinoza scholarship, history of philosophy and philosophy education, and normative systems theory. He has written on a wide range of important philosophical topics even into the 1990s and beyond, during which time he produced, among other works, his *Life's Philosophy* (2002; coauthored with Per Ingvar Haukeland), introductions to the philosophy of Gandhi (2000) and Spinoza (1999), and *Introduction to General Relativity and Its Mathematics* (1998; coauthored with Øyvind Grøn).²⁶ An adequate sketch of Naess's subsequent research interests and philosophical development can be gleaned from the following brief discussion of the volumes in the *Selected Works* and the discussion, at the end, of how his earlier work figures into the evolution and exegesis of deep ecology.

Naess's best-known philosophical work is likely *Interpretation and Preciseness*, published in 1953 (SWAN I). It is an attempt to convince the world of analytical philosophy about the types of approaches that are necessary, from the standpoint of a radical empiricist, to adequately interpret terms and point-of-departure statements (T_0 statements), given the manifold of plausible interpretations. It highlights the role and potential of experience in relation to intuition and reflection by requiring that every direct or im-

SERIES EDITOR'S INTRODUCTION

plied hypothesis regarding the actual use of terms, phrases, or sentences be testable. In addition, it responds to the ostensibly antiphilosophical sentiment in *Erkenntnis* by clarifying the function of and relationship between point-of-departure statements and precizations. In Naess's semantics, the most general statements, T_0 statements (words or sentences), are phrased in ordinary language and are intended to be philosophically neutral. T_0 statements serve as points of departure for investigations of possible interpretations. When a new interpretation of an expression eliminates some of the ambiguity of a preceding interpretation, without adding any new ambiguity, it is said to be a "precization." Thus, a sentence T_1 is more precise than a sentence T_0 when every plausible interpretation of T_1 is also a plausible interpretation of T_0 but at least one plausible interpretation of T_0 is not a plausible interpretation of T_1 . This process of using successive differentiation to better understand people's interpretations of terms, phrases, or sentences can go on almost ad infinitum; it is limited only by time, resources, imagination, and willing test subjects. With this process, however, Naess has created a formal approach for classifying different statements (interpretations) based on users' "depth of intention," the point at which they no longer, explicitly or implicitly, accept or embrace higher levels of precization. A focal point is Naess's approach of directly employing surveys to explore systematically and empirically the meanings of terms, phrases, or sentences based on their occurrences. Naess also created a formal procedure for comparing occurrences, both interpersonal and intrapersonal, that involves performing tests for different forms of synonymy. Naess has applied his empirical semantics approach to explore the meanings of "truth," "democracy," "it is the case," "certain," "perfectly certain," and "extremely probable" (see SWAN VIII for additional details on and applications of empirical semantics).

In *Scepticism* (SWAN II), published in 1968, Naess takes on the generally accepted position that scepticism, if widely embraced, leads to the intuitively false conclusion that we cannot know anything. Naess explores the variety of historical interpretations of scepticism in light of Sextus Empiricus's outline of Pyrrhonian scepticism. Three categories of philosophical positions on the question of truth are considered: Dogmatists claim at least one truth, Academicians negate the possibility of finding any truths, and Pyrrhonists neither assert that they have found any truths nor assert the impossibility of finding one. Naess takes a sympathetic view of this last

group, arguing that this form of zeteticism can represent both a viable philosophical position and a way of life that supports positive mental health. What ultimately sets this position apart is not that supporters are fundamentally opposed to making acts of assertion, to stating that "something is the case," but that they do not make such assertions with the conviction of truth. Naess also uses empirical semantics to demonstrate support for this position on rational and epistemological grounds. Distinguishing between one's philosophical view and the necessity of firm, socially responsible action in everyday life, he also responds to the common notion that this radical nondogmatism generally leads to paralysis of action. In the end, Naess argues that adopting this updated view of Pyrrhonic scepticism could lead to quite the opposite, a more open-minded approach to philosophy and life. Further elaborations on particular aspects of Naess's Pyrrhonism along with a response to Rescher's reappraisal of scepticism appear in SWAN VIII.

Which World Is the Real One? (SWAN III), which was first published in 1969 and revised in 1982, is, in part, an attempt to reinvigorate appreciation and study of the broad variety of philosophical outlooks and total views that exist in Chinese, Indian, Greek, Western, comparative, and recent philosophy. It makes use of Naess's empirical semantics, developed in *Interpretation and Preciseness*, to argue that it is an illusion to assert that combined scientific and philosophical or "purely" philosophical syntheses of such total views can exist. Naess argues that the results of science cannot be integrated into any single world picture, in part because such attempts at synthesis are necessarily fragmentary and because valid multiplicities of syntheses exist. He also takes up the question of the comparability of total views. Such comparisons, although important, are inevitably shaky because, despite admirable aspirations for standing back to obtain a meta-perspective, real people can never totally throw off their own total views; regardless of how explicit those views may be or of how conscious of them their holders are, biases are unavoidable. We always have our own perspective to contend with. For Naess the inevitable conclusion is that pluralism is inescapable and nothing to lament. He combines these points of view with a discussion of cultural anthropology to argue for the critical importance of supporting the flourishing of rich cultural diversity. Additional articles elaborating themes related to the significance of maintaining cultural diversity and its relationship to ecological sustainability appear in SWAN X.

In *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN

SERIES EDITOR'S INTRODUCTION

IV), published in 1972, Naess suggests that scientific theories must be understood in the wider context of the plural rationalities from which they spring. Science is not autonomous. Nor can it be seen justifiably as arising independently from the general enterprise of building philosophical systems. Furthermore, the relationship of models to reality is always indirect. This volume should be seen as an effort to erode the popular misconception of science as infallible and a viable surrogate for religion, not as an attempt to build a unified theory of science within one system, which Naess had long since rejected. Because no theory can ever be either fully verified or falsified, there exists a significant freedom of choice in both modes of exploration and theories that one can tentatively adopt. The notion of “fundamental theories” is immediately called into question. As the undemonstrated (and often undemonstrable) assumptions upon which theories rest are changed, a huge multiplicity of possibilities for future theory development arises, thus possibly helping to inspire a renewed enthusiasm in science by broadening our concept of rationality and restoring the role of imagination. Articles extending or elaborating on the ideas in *The Pluralist and Possibilist Aspect of the Scientific Enterprise* appear in SWAN IX.

Naess's third book on Gandhi, *Gandhi and Group Conflict* (SWAN V), was published in 1974. This book develops an intellectually rigorous presentation of the theory of *satyāgraha*—the way of militant nonviolent resistance—as a strategy for conflict resolution. This work is a paradigmatic example of Naess's approach to research and writing. As the eminent Norwegian social scientist and peace researcher Johan Galtung has suggested, Naess's 1955 *Gandhis Politiske Etikk* (Gandhi's political ethics)—with Galtung—and his 1965 *Gandhi and the Nuclear Age*, along with his articles that analyze or extend on Gandhi's work (see SWAN IX and X), act as exercises or drafts for this, his major work on Gandhi.²⁷ Using Gandhi's own recorded accounts, Naess explores the norms and hypotheses tacitly employed by Gandhi in his nonviolent campaigns and then uses these to create the first philosophical and logical systematization of Gandhi's approach to militant nonviolence. A careful investigation of Gandhi's two ultimate norms (as interpreted by Naess), “Seek complete self-realization” and “Seek truth,” and his belief in *advaita* (nonduality), along with a consideration of their parallels to Spinoza's unity thesis, will reveal interesting insights into Naess own characterization and use of “Self-realization!” as

the single ultimate norm of his Ecosophy T. Naess also considers Gandhi's approach to nonviolent conflict resolution in light of contemporary reactions against the use of nonviolence by Frantz Fanon, Malcolm X, Stokley Carmichael, C. V. Hamilton, and Sartre. He then examines Gandhi's ideas and intentions regarding group conflict in light of the ideas and intentions underlying other modern philosophies of conflict, including those of Luther, Nietzsche, Tolstoy, and Jaspers.

In *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (SWAN VI), Naess uses symbolic logic to present a formalization and partial reconstruction of a small but important part of the *Ethics*. Spinoza's system is embedded in the seventeenth century and expressed in Medieval Latin. Two of Naess's goals are to bring empirical analysis to bear in trying to interpret and update Spinoza's system and to make Spinoza's insights more accessible and relevant to contemporary readers. To perform his reconstruction, Naess draws heavily on a small book he produced in 1962, *Equivalent Terms and Notions in Spinoza's Ethics*, which lists and discusses 243 equivalences that are directly asserted or suggested by Spinoza in the *Ethics*, according to Naess.²⁸ Accepting the transitivity of the equivalence relations as a general rule, Naess argues that a vast array of structural relations can be elucidated (many of these are often only suggested or implicitly asserted by Spinoza). One of Naess's key conclusions is that every living thing is to some extent "in itself" and to some extent "in something else" due to the presumed gestalt nature of reality. Another is that the terms *substance*, *attribute*, *God*, *mode*, and *Nature* are "expendable"; Spinoza's basic nondualism is made clearer by Naess. A third conclusion is that *to be active* and *to understand* cannot be systematically distinguished in the *Ethics*. This notion, which has important implications for philosophy of science, is also embedded in Naess's conclusion in *Erkenntnis* that knowledge is cognition—the content of knowledge and the activity of research cannot be cleanly separated. Naess uses his analysis to explicate three main themes of Spinoza's system: the importance of a notion of uncoerced freedom (not coerced by externals), the importance of developing and acting on strong emotions to make progress in achieving higher levels of freedom, and the importance of joy that activates the complete person (as opposed to joy that simply activates part of the body or the soul). By clarifying the semantic structure of a central part of the *Ethics* with his own logical struc-

SERIES EDITOR'S INTRODUCTION

ture, Naess explains that there exists a wide variety of possible interpretations of the contents of the *Ethics*. Articles on Spinoza's determinism and its relationship to freedom, Spinoza and Māhāyana Buddhism, "Spinoza's Finite God," and other Spinoza-related topics appear in SWAN IX. Articles that explore Spinoza as an inspiration for deep ecology appear in SWAN X.

The English translation of *Communication and Argument: Elements of Applied Semantics* (SWAN VII), which was first published in 1966, is largely a popularization of the central ideas in *Interpretation and Preciseness*. The English edition is a somewhat watered-down version (no exercises) of the Norwegian edition that from 1941 to 1969 was used by nearly 100,000 university students in the *examen philosophicum*. Its purpose, to quote the *Times Literary Supplement*, is " . . .to teach people in a democratic society to think clearly, coherently, and above all responsibly." Naess's hope is that teachers use controversial examples from current events—the more emotional the better—to confront students with their own confusion and encourage them to strive for higher levels of depth of intention. The final chapter outlines six "Gandhian" rules of effective discussion, which emphasize avoiding six forms of "irrelevance in discussion."

The first two volumes of selected papers (SWAN VIII and IX) contain important material that is not covered by the preceding volumes, material that complements them, or material that builds on or reevaluates positions taken earlier. Volume VIII includes sections on "Empirical Semantics and Truth," "Zeteticism," "Empiricism, Possibilism, and Pluralism," and "Metaphysics, Morals, and Gestalt Ontology." Volume IX includes sections on "Democracy, Ideology, and Rationality," "Philosophy of Science," "The Philosophy of Peace, Gandhian Ethics, and Communication," "Spinoza," and "Philosophical Development, Environment, and Education" (which includes an autobiographical article describing key influences in Naess's philosophical evolution, "How My Philosophy Seemed to Develop" and an interview, "Deep Ecology and Education"). A number of the especially significant articles have already been referred to, where relevant, in the discussion of Naess's philosophical evolution; other articles are discussed in the notes.

Today, Naess is, perhaps, best known for his "deep ecology" writings, the topic of *Deep Ecology of Wisdom* (SWAN X). This work began with a short unpublished paper written in 1965, "Nature ebbing out" (in SWAN X), and continues to this day. As the primary architect of deep ecology, Naess has

more than seventy-five published articles and book chapters and more than sixty unpublished pieces on this topic. His only book-length discussion of deep ecology began with a short mimeograph, *Økologi og Filosofi* (Ecology and philosophy), published in 1971. The fifth revision and expansion of this initial work resulted in the 1976 classic, *Økologi, Samfunn og Livsstil* (Ecology, community, and lifestyle), which has been translated into Swedish, English (1989), Italian, Japanese, and Czech. This book has not been included in the *Selected Works* because it is widely available and currently in print.

Volume X is the first comprehensive collection of Naess's work on deep ecology—it includes a broad array of articles on its history, influences, theory, development, practice, and prospects. This volume shows how deep ecology represents the integration and culmination of Naess's lifelong interests in philosophy, social research, activism, science, and nature. It demonstrates how Naess, in his explication and elaboration of deep ecology, draws extensively from both his life experience and his research on empirical semantics, scientific and cultural pluralism, Pyrrhonic scepticism, Spinozistic nondualism and activeness in relation to problems, gestalt ontology, normative systems theory, total views, and Gandhi's concepts of self-realization and nonviolent communication. Volume X also shows how Naess's approach to deep ecology has unfolded over time, with substantial emendation, in part as a response to the worsening ecological crisis, in part to answer criticisms that deep ecology was turning into a cult or religion, and in part to address the considerable confusion and controversy that arose from his use of provocative terminology and philosophical vagueness.

Ever since he coined the term *deep ecology* with his now famous paper "The shallow and the deep, long-range ecology movement: A summary," (in SWAN X) given at the 1972 Third World Future Conference in Bucharest, Naess's central concern has been to use philosophy and philosophical thinking to help humans overcome the ecological crisis and, ultimately, to restore the Earth to a state of rich and flourishing biological and cultural diversity (see volume X). A basic premise is that some ethical norms, particularly those grounded in spontaneous experience, can be tentatively accepted as objectively valid. An example for Naess would be the statement that "Every living being has an equal right to live and flourish, *in principle*." This statement in no way denies that maintaining our existence necessitates killing living beings. Another key premise is that the human potential for caring is not static or

SERIES EDITOR'S INTRODUCTION

limited—it can be both extended and deepened. The ecological crisis is embedded in an ecocultural crisis. Its resolution will necessitate cooperation and collaboration among the peace, social justice, and ecology movements.

Naess does not see himself as “inventing” deep ecology. Rather, he gave a name and a philosophical framework to a minority tradition, a nascent social movement that has been with humanity since at least Buddha, Chuang Tzu, Saint Francis of Assisi, Thoreau, John Muir, and Aldo Leopold, and is epitomized by Marjory Stoneman Douglas’s 1947 *Everglades: River of Grass* and subsequent crusade to save the Everglades.²⁹ This movement finally came of age in the contemporary era after Rachel Carson’s *Silent Spring*. Naess’s work on “deep ecology” can be subdivided into three main thematic areas.³⁰

What I refer to as Naess’s deep ecology approach (deep ecology as an ecophilosophical approach) represents his contributions to deep ecology theory—it is essentially an outline of a general philosophy of life, which draws considerable inspiration from Gandhi and Spinoza. The focal points are encouraging ultimate beliefs that support our capacity to identify with all living beings and Naess’s general, pluralistic, normative systems-based strategy for assisting individuals in the process of weaving their ultimate beliefs, descriptive and prescriptive premises about the world, ecological science, and philosophy into systematic conceptual structures for relating to the world—ecologically inspired *total views* or *ecosophies*.

His work characterizing and supporting deep ecology as an international, grassroots social and political movement, along with his work entering into the fray, addressing conflicts, implications, and practical applications of the theory, falls into the realm of contributions to the “deep ecology movement.” Supporters of the deep ecology movement are not united by a commitment to deep ecology as an academic ecophilosophy (which they may not be familiar with or embrace), but by their willingness to endorse the eight-point deep ecology platform, prepared by Naess and Sessions in 1984.³¹ Finally, work discussing his personal systematization of a deep ecological total view falls into the realm of “Ecosophy T.”

Naess coined the terms *deep ecology* and *shallow ecology* in 1972 to juxtapose what he regarded as two radically different approaches for problematizing (*Problematisieren*) and responding to the ecological crisis. In proposing the deep/shallow contrast, he made a technical semantic distinction directed at our level of problematizing—the extent to which we can, and do, coherently and consistently trace our views, practices, and actions back

to our ultimate beliefs or bedrock assumptions. Naess starts with a premise, which he has investigated empirically, that at the level of their ultimate beliefs, people generally identify with and appreciate nature. He then uses this to argue that many regrettable environmental decisions are made in a state of "philosophical stupor," in which narrow concerns are confused with, and then substituted for, more fundamental ones.

The "shallow," currently more influential approach to environmentalism is identified with treating the symptoms of the ecological crisis, such as pollution and resource degradation. This reform-oriented approach is grounded in technological optimism, economic growth, and scientific management, not in ultimate premises that plumb the relationship between people and nature. It thus ultimately fails to address the philosophical, social, and political roots of the ecocultural crisis.

The "deep" approach, on the other hand, while in no way discounting the exigency of addressing pollution and resource degradation, adopts a broader, long-term, more sceptical stance. Doubtful about technological optimism, critical of limitless economic growth, and decidedly against valuing nature in purely instrumental terms, it asks if the shallow approach's proposed solutions take into consideration the nature of reality and the complexity of the problems its adherents hope to rectify. Stressing the importance of addressing the fundamental roots and coevolving causes of the ecological crisis, deep ecology posits that along with humans' special capacities for reason and moral consciousness come special responsibilities, particularly in relation to the flourishing of nonhuman life and the ecocultural sustainability of the planet.

The deep ecology approach calls for expanding our sphere of concern to all living beings—charismatic or dull, gargantuan or tiny, sentient or not. It acknowledges that every living being has value in itself and views the flourishing of nature and culture as fundamentally intertwined—as part of one reality. This *wide-identification* is characterized by the perception that all life is interdependent; common goals bind all living beings to the life process. In Naess's view one can arrive at wide-identification by drawing on a broad diversity of philosophical or religious ultimate premises, with roots ranging from Christian Stewardship to the Gaia Hypothesis to Naess's own ontologically inspired "Self-realization!" In its most expansive form, wide-identification is the intuition that nature's interests and our own coincide, as with Naess's "Self-realization!"—something akin to a blending of the

SERIES EDITOR'S INTRODUCTION

Hindu *ātman* with a biospherical Pareto-optimality principle. Simply stated, this principle asserts that the increased realization of any individual or species rests on advancing (or at least not hindering) the realization potential of all other individuals or species.

By juxtaposing these two, almost caricatured perspectives, Naess employs a technique of Gandhian nonviolent communication designed to confront core disagreements. The central premise is that society's potential to overcome the ecological crisis rests on guiding discussion and debate to its root causes. One of the primary root causes, Naess asserts, is the widespread disjunction between people's core beliefs and their actions. People, in general, neither comprehend how their practices and everyday lifestyle choices harm the environment, nor recognize how these consequences may be in direct conflict with their core beliefs—this is the primary weakness of the shallow approach. A crucial, underlying hypothesis of the deep approach is that teasing out the presumed inconsistencies between an individual's actions and his or her fundamental beliefs, while possibly engendering serious ancillary conflict along the way, will ultimately generate progress toward ecocultural sustainability.

Naess contends, as I have pointed out earlier, that humans act as if we have total views whether or not we make such structures explicit. Because our decisions regarding society and nature are guided by our total views, Naess maintains, we *should* attempt to articulate them. By making these structures explicit, we expand both our opportunities for fruitful debate and interchange and our possibilities for creating policies that are consistent with our collective ultimate beliefs. This focus on praxis (responsibility and action) separates the deep ecology approach from more descriptive inquiries into environmental philosophy that focus on axiological questions, such as extending "rights" to certain nonhuman life-forms or grading intrinsic value. The ontologically inspired deep ecology approach attempts to counter the perception of fundamental people/environment and spiritual/physical cleavages. Its primary strategy for overcoming the ecological crisis is to help individuals avoid pseudo-rational thinking.

In relating this notion of persistently asking deeper questions to the ecological crisis, Naess broadens his concept of "depth." In the context of deep ecology as an ecophilosophical approach, depth refers to both the general level of problematizing we employ in seeking out the underlying, co-

evolving causes of the ecocultural crisis and the extent of our willingness to consider an expansive array of social and policy responses, even if they necessitate changes that constitute a radical departure from the status quo. Rather than calling for a new environmental ethic or a radical change in fundamental values, Naess's approach to ecophilosophy centers on transforming practice and policy by challenging us to develop more thoroughly reasoned, consistent, and ecologically inspired total views. This work represents a culmination of his effort to integrate reason and emotion. He has created the foundation for a new and promising human/nature relationship that positions humans as plain citizens with special abilities and unique responsibilities and nature as mentor, measure, and partner rather than servant. The current state of global ecological unsustainability has made Naess state that he is optimistic about the twenty-second century but pessimistic about the twenty-first; humans have a long way to go.

Deep ecology has been criticized for being too critical of pragmatic efforts to address acute environmental problems. It has also been accused of being inherently fascist, antihumanist, antifeminist, and against having indigenous peoples share wilderness areas with nonhuman life-forms.³² As the articles in volume X will show, none of these criticisms are compatible with a sophisticated reading of Naess's writings on deep ecology as an ecophilosophical approach. This is not to suggest that deep ecology as an ecophilosophical approach has clear answers. In inspiring many people to reconsider their value priorities and more consistently relate them to their lifestyles and everyday actions, deep ecology opens more questions than it answers. Three key issues for future research loom on the horizon. First, how can society motivate value priorities for ecological sustainability when individuals do not, on first principles, embrace wide-identification? Second, does taking a deep ecological perspective over a shallow ecological perspective actually result in better policy—policies that lead to long-term protection of cultural and biological diversity, using democratic, noncoercive, and ethically unobjectionable means? Third, how can deep ecology help resolve conflicts in environmental decision making when those conflicts result not from pseudorational thinking but from genuine value conflicts?



Throughout this essay, I have tried to show how Naess's life of rich and varied spontaneous experiences and internal tensions have shaped not only

SERIES EDITOR'S INTRODUCTION

who he is as a person, but also who he is as a philosopher. Viewed separately, Naess's contributions to academic philosophy, social research, and ecological philosophy and activism can appear discordant, dilettantish, and incoherent. When, through careful study of his helical progression, his philosophical and personal maturation, the pattern of the whole unexpectedly reveals itself as a unity, the whole suddenly becomes much more than the simple sum of individual books and articles. With the distance of a meta-perspective, Naess's collective philosophical contributions can be seen as a mosaic—as a superordinate gestalt, in some sense, as a rich and inspiring, but inevitably fragmentary total view. Naess has breathed life back into the study of philosophy by turning its study back to life. With his cultivation of a meta-perspective, a whole, new (old) approach to philosophy and way of seeing the world emerges. This richly patterned mosaic, by encouraging us to celebrate our freedom and affirm life, can help us to reshape our relationship to each other and the Earth in new and promising ways.

Conclusion

It was only as a professor that I became aware of the difficulties of suppressing the significance of the development of feelings in human affairs while at the same time worshipping reason. Both are constantly needed.

Arne Naess, *Life's Philosophy*

The ten volumes of this series (along with a subsequent volume of conversations between Naess and myself on deep ecology and his philosophy) make available for the first time access to the breadth and depth of Naess's philosophical thought. Efforts to judge the significance of Naess's philosophical oeuvre—assertions made in the first sentence of this essay—can now be taken up on an informed basis. When embarking on this process, it may prove beneficial to reflect on Henry Adams's insight on the fundamental limitations of communication, and especially the limits of communicating one's fragmentary total view, "No one means all he says, and yet very few say all they mean, for words are slippery and thought is viscous."³³ Spinoza ends the *Ethics* with the following remark: *Sed omnia praeclara tam difficilia, quam rara sunt* ("But all very clear things are as difficult as rare").

In *The Radical Spinoza*, Wienpahl translates the phrase more literally

than usual, rendering *praeclara* as “very clear” rather than the typical “excellent.”³⁴ The quest for clarity is painful and difficult as well as amaranthine. The alternative, however, is to abandon joy and freedom and thus meaning. This is the essence of Naess’s distinction between being an *academic philosopher* and being a *philosopher of life*, between merely *functioning* and *living*. Drawing inspiration from Spinoza, Naess has cultivated a practice of both integrating reason and emotion *and* transforming negative emotions into positive ones. His challenge is before us and the frontier is long—the choice, however, is ours.

Editorial Approach

Naess has always written books as if they were exercises for himself, tentative formulations that chronicled his views at that very second but were always subject to change. As I indicated previously, many of the prior editions of his books were poorly edited and sparsely documented. Existing bibliographies were incomplete, and indexes (in the rare cases in which they existed) were always inadequate. Quotations were often transcribed incorrectly and ill-referenced. In addition, the breadth of his work was enormous and sometimes repetitive. Arriving at a plan for a representative *Selected Works* that would have a consistent format and design was no easy task.

All the selections for the *Selected Works* were made in close consultation with Naess. I would prepare recommendations from my master bibliography file and then, whenever we disagreed, we would discuss the pros and cons of the piece and whether it was appropriate for inclusion (this approach proved particularly helpful when we reached the *Selected Papers* volumes). We immediately made a decision to exclude works that were widely available and currently in print. Other important works, such as his dissertation, and his major work on lay people’s conception of truth, his work on the semantics of democracy and ideological controversy, and his contributions to history of philosophy were more difficult to exclude, but the nature of the project as a selected works demanded such tough choices. I was encouraged by the fact that Naess often published articles that summarized or updated earlier works. In the end, I was able to reflect a significant portion of the ideas and concepts in these excluded works by including articles of that type in one of the three *Selected Papers* volumes.

SERIES EDITOR'S INTRODUCTION

The details of editing proved more complex. Much to my chagrin, I very humbly learned how much work goes into a project of this scale and complexity. We decided early on that the level of editing required to bring the prior publications up to the high standards of contemporary academic philosophical publishing would necessitate revised editions. We also decided that since we were preparing revised editions and Naess was alive and could review the work, we would make the role of the editor invisible and not include tedious footnotes chronicling all the changes, however significant they might be. The historical significance, intricacy, and sheer magnitude of *Interpretation and Preciseness* (SWAN I) warranted special consideration. For these reasons, we decided that it would be best to prepare only an edited version for this volume and not attempt a complete revision as with the other volumes. In the early stages of the project Naess and I worked together closely, intimately. In my effort to eliminate errors and to enhance readability, flow, and clarity of argument, I brought Naess question after tedious question when I first embarked on the project (particularly when I was in Norway as a Fulbright Scholar in 1996). After working through several manuscripts, Naess decided to place the remainder of the responsibility for revising and editing the manuscripts in my hands.

We have made our best effort to reconcile inconsistencies, make corrections, and chase down incomplete bibliographic references (in most cases no bibliographies existed for the original works). I regret, however, that some imperfections remain. I am also responsible for any new errors that have been introduced—their existence, unfortunately, is unavoidable. I am, however, heartened by a conversation I had with Naess midway through the project, after he had reviewed several drafts of revised manuscripts. He commented that at least 90 percent of my revisions resulted in improvement and that no significant misinterpretations had been introduced. Given the nature and complexity of this project, that sounded like odds I could live with.

Acknowledgments

A project of this magnitude, by its very nature, represents the labor and love of an entire community. It could never have gotten off the ground, much less been completed, without a fantastic and deeply committed team. I have been blessed by the opportunity to work with, learn from, and re-

SERIES EDITOR'S INTRODUCTION

ceive guidance and support from so many talented friends and colleagues. It's been a wild ride; I owe you all a tremendous debt of gratitude.

First, the inspiration for the *Selected Works* and the majority of its financial support are due to the foresight and generosity of "Miracle Doug," Douglas Tompkins, president of the Foundation for Deep Ecology (FDE). Thanks for your vision, Doug. Quincey Tompkins Imhoff, former executive director of the Foundation (and current vice president of the board), also deserves recognition for her tremendous support during the early years of the project, as do program directors Jerry Mander and John Davis. Special thanks also go to Sharon Donovan, the Foundation's publishing manager, who in the project's final years has guided it through a long and sometimes circuitous path to completion. The Foundation has also always had an amazingly gifted and dedicated staff. At one point or another, many of its staff had a hand in helping this project along—offering assistance at a key point, a kind word, inspiration, or simply good cheer and a smile. Thank you, Denise Wilson, Debi Barker, Esther Li, Lizzie Udwin, Julie Lindow, Miyo Sakashita, and Emily Lydgate.

I was also supported by the Fulbright Foundation with a senior research/teaching fellowship at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. Additional support came from Western Michigan University. Special thanks go to WMU's dean of the College of Arts and Sciences, Leonard Ginsberg, and to my chair, Thomas Bailey. My colleagues at Western Michigan University also deserve thanks for their tolerance and succor while I focused all my available energies on this project. I am grateful for their flexibility and generous support. Wil Emmert, one of WMU's Research and Program officers, also deserves a great thanks for his patience and skillful assistance.

The project has been blessed with a distinguished advisory board—Robert S. Cohen, Bill Devall, Alan Drengson, Ingemund Gullvåg (deceased), Per Ingvar Haukeland, Kit-Fai Naess, Nicolas Rescher, George Sessions, Michael Soulé, Douglas Tompkins, and Jon Wetleson. All of the advisers offered significant assistance in one form or another. Bob Cohen graciously shared his expertise and offered invaluable advice, encouragement, and support throughout the project. Bill Devall gave encouragement and helped bring volume X to completion by coauthoring its preface.

SERIES EDITOR'S INTRODUCTION

George Sessions offered advice on the selections for volume X, provided guidance, and carefully reviewed a draft of this introduction. His suggestions greatly improved its flow and clarity. Kit-Fai Naess's tremendous moral support and great assistance in locating obscure documents and preparing bibliographies were invaluable.

Alan Drengson's contribution as a project adviser and in the project's final year as Associate Editor deserves special mention. At a crucial time, when the project was stalled in its later stages, Alan stepped up to the plate and played a key role in helping shepherd the project to completion. In particular, he took over most of the day-to-day project-coordination responsibilities for the final year of the project. He reviewed the copyedited manuscripts for volumes I, VIII, IX, and X, oversaw preparation of the author's prefaces to each volume and the editors' prefaces to volumes VIII, IX, and X, and reviewed the final manuscript proofs. This was not an easy task. I owe Alan a great debt for his fortitude, commitment, and generosity. For his contribution to the difficult and taxing responsibility of overseeing the final preparation of volume I, he has been credited as its sole editor.

I am lucky to have been supported by two astonishingly capable, committed, and patient project assistants. Kim Zetter played a critical role in getting the project off the ground and keeping it on schedule for the first three years. Later, Barbara Pijan helped steer the project back on track and over some awkward obstacles after it had run off course. Their talent and dedication played a major role in bringing to life the books before you. Thank you, Kim and Barbara, for your stalwart devotion to the project.

The beautiful and elegant design of the series is the work of Tomatsu Yagi and his nephew Akira Yagi. Ralph Fowler played a significant role in executing the Yagis' design and by filling in any missing gaps. Ralph also performed the typesetting for volumes II–VII. The skillful and efficient crew at BookMatters performed the remainder of the typesetting. Katherine Silver handled the Brobdingnagian task of project management on volumes I and VIII–X and the last crucial stages of the project with aplomb, attention to detail, and fortitude.

The bulk of the project's copyediting was performed by the meticulous and supertalented Anne C. Collins, Ph.D., copyeditor extraordinaire. Additional copyediting was provided by Mary Anne Stewart and Kathy Walker. Indexing was performed by the immensely competent Nancy Mul-

SERIES EDITOR'S INTRODUCTION

vaney of Bayside Indexing Service, Julie Shawvan, and Leonard S. Rosenbaum. Proofreading was provided by Carrie Pickett.

Ingemund Gullvåg translated *Which World Is the Real One?* Iver Ørstavik provided the translation of "Experts' views on the inherent value of nature." The original editions of Naess's texts were keyed or scanned by the able and efficient crew at AgAccess—David Katz, Karen van Eppen, Jacob Katz, Rachna Boon, and Tim Rice. Additional keying of articles for the *Selected Papers* volumes was provided by Nancy Ropecka and Jane Drengson. Barbara Pijan, d Jones, Tony Hainault, and Debbie Reid deserve thanks for their careful and thorough transcribing of more than thirty-five hours of discussions with Arne Naess. Thanks are also owed to Tim Quick for his help with bibliographic research for volumes I and VIII–X, and to Kelly McKernan for assisting Alan with photocopying and faxing. In addition, a special thanks goes to Robert P. Goldman, Sarah Kailath Professor of Sanskrit and Indian Studies at the University of California Berkeley, for generously and graciously offering assistance on contemporary Sanskrit and Hindi terms.

I am grateful to the dedicated and very patient staff at Kluwer Academic Publishing. I am sad that our original editor, the immensely talented Annie Kuipers, who first recognized the importance of this project, did not live to see it come to print. Stephanie Harmon, Annie's replacement, worked closely with me on editorial matters and on finding high-quality recycled paper, cloth, foil, and other materials that meet the strict environmental considerations of FDE. In the final five years, the able and gifted Charles Erkelens was our editor.

Additional advice and moral support were provided by colleagues, friends, and family: Aimee Carroll, Kirsten Coyne, Paul Craig, Neal Goodwin, Byron Hahn, Ladislav Hanka, Alastair Hannay, Anna Leidberg-Miron, Danny Moses, Richard Norgaard, Max Oelschlaeger, Brian Recht, Stephanie Sarvar, Ed Saxon, Geir Michael Sommerhein, Petter Sorum, and Kristin Walstad. Thanks for your efforts to coax me out of the cave.

Special thanks go to d and Reuben for their forbearance and succor. Someday, all too soon, Reuben will recognize that the invisible "work fairies" that were constantly pulling me back to my office don't actually exist. I can't wait.

Most of all, thanks to Arne Naess for placing his trust in me—it's been

SERIES EDITOR'S INTRODUCTION

a gift, something like an extended trudge up to Tvergastein, but without the fresh air and perspective. Taking on this project has been somewhat like receiving Pandora's box as a present—all sorts of ills and plagues reared their heads along the way. I often felt that I was on a never-ending climbing descent in the night. I was always wondering about rappelling off my rope into the abyss.

The SWAN has taken flight, and I have landed on firm ground—I think? In all seriousness, I learned invaluable lessons. The more I worked through Arne's writings, the more open-minded and optimistic I became. I found myself cultivating perspective and looking at the problems and challenges before me with fresh insights. I also found myself responding with more grace and equanimity in my efforts to counteract the numbing effects of contemporary society.

It is strange and ironic, however, that in being the series editor for the *Selected Works* of the father of deep ecology I spent so much time inside, chained to a desk. But this is part of the paradox of working with Arne Naess. I am reminded of one of my favorite poems—Gary Snyder's "Axe Handles." The last few lines read:

Pound was an Axe,
Chen was an axe, I am an axe,
And my son a handle, soon
To be shaping again, model
And tool, craft of culture,
How we go on.

And then it makes sense.

Harold Glasser
2004

Notes

1. In writing this essay, I found myself drawing on more than twelve years of friendship with Arne Naess. A simple bibliography could not do justice to describing how this subtle and multilayered gestalt has been formed. My perception of Naess and his work has been shaped by more than thirty-five

SERIES EDITOR'S INTRODUCTION

hours of transcribed conversations between us, countless other conversations, letters, scraps of paper, e-mails, and Arne's copious annotations in my own books and articles. Camping trips, bouldering, hikes, and cross-country skis have also helped inform my understanding of Arne Naess the fiercely competitive, playful, elfin trickster, who springs to life in nature. I have benefited from three extended visits to Norway, including a Senior Fulbright at the University of Oslo's Centre for Development and the Environment and Institute of Philosophy in 1996. I have also spent other stimulating periods of time with Arne in Svalbaard, England, California, and the deserts of Arizona and Nevada. Finally, and probably most important, I have been inspired and forever changed by my own reading and editing of his work. In this regard, both previously published and unpublished materials have been influential in forming my own perspective on Arne Naess the philosopher. One key published source has been Naess's "How my philosophy seemed to develop," in *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar (Bern: Peter Lang, 1983), pp. 209–26 (in SWAN IX). Another source for insightful material on Naess and A. J. Ayer (as well as six of their contemporaries) is a book created from debates by philosophers for Dutch National Television. See, especially, "The glass is on the table: An empiricist versus a total view," in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (London: Souvenir Press, 1974), pp. 11–68 (in SWAN VIII). Finally, additional perspective was offered by an article that discusses Norwegian philosophy from the end of the Second World War to just before 1980: Arne Naess and Jon Hellesnes, "Norway," in *Handbook of World Philosophy Since 1945*, edited by John Burr (Westport, CT: Greenwood Press, 1980), pp. 159–71.

On some of the fine points of this essay, I have benefited from extended conversations with my colleague and old friend George Sessions. I have also profited, over the years, from the significant literature that has been created to shed light on Arne's life and work. Many of the ideas and thoughts introduced in this essay—drawn from my own firsthand experiences with Arne—can also be found in these sources. In many cases, issues only touched on here are taken up in much more detail in those sources. Five key references for historical material on Naess and the evolution of his philosophical approach are identified below (two of which are videos). A wealth of additional material is available in the five festschrifts for Naess (see details in note 15 below). The first of the festschrifts, *In Sceptical Wonder: Inquiries into the Philosophy of Arne Naess on the Occasion of His Seventieth Birthday*, edited by Ingemund Gullvåg and Jon Wetlesen (Oslo: Universitetsforlaget, 1982), contains the most thoroughgoing analyses and critiques of Naess's earlier philosophy that I am aware of, and many of the articles have insightful responses by Naess.

SERIES EDITOR'S INTRODUCTION

Books

Warwick Fox, *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism* (Boston and London: Shambhala, 1990). See, especially, chapter 4, "Arne Naess and the Meanings of Deep Ecology."

Ola A. Hegdal and Tore Strand Olsen (illustrator), *Jeg, Arne Naess: Et Tegnet Liv* (Arne Naess: A cartoon story of my life) (Oslo: Kagge Forlag, 2001). A unique and insightful look at Arne's life, based on an idea from Arne's wife, Kit-Fai.

David Rothenberg, *Is It Painful to Think? Conversations with Arne Naess* (Minneapolis: University of Minnesota Press, 1993).

Videos

Crossing the Stones: Arne Naess (Oslo: Norwegian Broadcasting Corporation, 1991), 47 minutes.

The Call of the Mountain: Arne Naess and the Deep Ecology Movement (Amsterdam: ReRun Produkties, Postbus 93021, 1090 BA, 1997), 50 minutes.

2. On Naess's effort to expand the concept of reason to incorporate emotions and feelings, see Arne Naess with Per Ingvar Haukeland, *Life's Philosophy: Reason and Feeling in a Deeper World*, translated by Roland Huntford, foreword by Bill McKibben, introduction by Harold Glasser (Athens and London: University of Georgia Press, 2002). As a testament to Naess's interest and influence in Norway, I note that in a country of about 4.5 million people, 150,000 copies of the Norwegian edition of *Life's Philosophy* have been sold. For a fine example of Naess's use of mythopoetics, see Arne Naess and Johann Brun (photographer), *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein) (Oslo: N. W. Damm and Son, 1995). For other examples, see Naess's article on Tvergastein, his "Letter to the King of Nepal," and some of his writings on deep ecology in volume X of the *Selected Works*.
3. Most of these questions were drawn from Naess's discussion with Sir Alfred Ayer on the nature of philosophy and the problems it seeks to address (Naess and Ayer, "The glass is on the table," p. 14).
4. See Naess's "Ecosophy and gestalt ontology" in SWAN X.
5. Jakob von Uexküll, "A stroll through the world of animals and men: A picture book of invisible worlds," in *Instinctive Behavior*, edited by Claire H. Schiller (New York: International Universities Press, 1957), p. 14.
6. Arne Naess, "Validity of norms—But which norms? Self-realization? Reply to Harald Ofstad," in *In Sceptical Wonder*, p. 259.
7. Naess and Ayer, "The glass is on the table," p. 59.

SERIES EDITOR'S INTRODUCTION

8. For more information on Naess's theory of normative systems, see "Notes on the methodology of normative systems" in volume X of the *Selected Works*. For details on his application of normative systems, see *Communication and Argument* (SWAN VII) and *Gandhi and Group Conflict* (SWAN V) as well as Naess's discussion of Ecosophy T and "Philosophy of wolf policies I" in SWAN X. For an entire book dedicated to exploring the Gandhian premise "Any human conflict can be justifiably resolved through nonviolence," see Naess's *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965).
9. See Naess's "What do we as supporters of the deep ecology movement stand for and believe in?" in volume X of the *Selected Works*.
10. Letter to Doug Tompkins, May 26, 1992.
11. Justus Hartnack, "Scandinavian philosophy," in *The Encyclopedia of Philosophy*, edited by Paul Edwards, vol. 7 (New York: Macmillan, 1967), p. 301.
12. From about 1845 to 1910, Hegelianism dominated Norwegian philosophy. This period is often referred to as the "dead period" of Norwegian philosophy, not because of Hegelianism but because it was characterized by a dearth in publishing.
13. Personal communication, April 30, 1997.
14. Alastair Hannay, "Norwegian philosophy," in *The Oxford Companion to Philosophy*, edited by Ted Honderich (Oxford: Oxford University Press, 1995), pp. 626–27.
15. Gullvåg and Wetlesen, *In Sceptical Wonder*; Alan Drengson, ed., *The Long-Range Deep Ecology Movement and Arne Naess*, special edition of *The Trumpeter* 9 (Spring 1992); Rana P. B. Singh, ed., *Environmental Ethics and the Power of Place: Festschrift to Arne Naess* (Varanasi, India: National Geographical Journal of India, 1994); Nina Witoszek and Andrew Brennan, eds., *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy* (Oslo: Centre for Development and the Environment, 1997; Lanham, MD: Roman and Littlefield, 1998); Andrew Light and David Rothenberg, eds., *Arne Naess's Environmental Thought*, special edition of *Inquiry* 39 (June 1996).
16. Arne Naess, *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay (Chicago: University of Chicago Press, 1968). In the 1970s, philosophy was still influenced by the events of the Second World War. Heidegger's flirtation with National Socialism and the Hitler regime, and his unusual way of expressing himself, made it difficult for him to be considered a great philosopher. Naess's book on four contemporary philosophers was seen as unique because he interpreted in a scholarly and positive way both Heidegger and the fiercely anti-Heideggerian philosopher

SERIES EDITOR'S INTRODUCTION

Rudolph Carnap, a logical empiricist. Carnap, who was forced to flee Nazi Germany, could not fathom how Naess, as an old friend, could present positive discussions of Heidegger and himself in the same book. The other two philosophers included in the book, Wittgenstein and Sartre, also held completely incompatible views of philosophy, but Naess accorded them equally high positive appreciation.

17. For example, works by Naess that are still in print, such as *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and edited by David Rothenberg (Cambridge: The University Press, 1989), and *Life's Philosophy* (2002; see note 2), were not included, for obvious reasons.
18. In "How my philosophy seemed to develop," p. 215, Naess mentions the particularly strong impression, the magnificent expansion of his own "life's frame of reference," made by H. G. Wells's early popularization of the history of life, *Outline of History* (New York: Macmillan, 1920).
19. For detailed discussions of Naess's assessment of logical empiricism, see Arne Naess, "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap," in *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme (Gent, Belgium: Communication and Cognition, 1992), pp. 107–55 (in SWAN VIII). (The original German version of Naess's article, "Wie Fördert Man Heute die Empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap," was written during 1937–39.) For Naess's experiences attending the Schlick seminar, see Arne Naess, "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences," in *Scientific Philosophy*, edited by Friedrich Stadler (Dordrecht: Kluwer Academic, 1993), pp. 11–25 (in SWAN VIII).
20. Naess, "How my philosophy seemed to develop," p. 222.
21. See Arne Naess, *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge and scientific behavior or, more colloquially, Science as behavior), Inaugural Dissertation (Oslo: Norwegian Academy of Sciences, 1936).
22. John Dewey, "Experience, knowledge, and value: A rejoinder," in *The Philosophy of John Dewey*, edited by P. A. Schilpp (Chicago: Northwestern University Press, 1939), p. 597, as quoted in Wallace I. Matson, *A New History of Philosophy*, vol. 2 (San Diego: Harcourt Brace Jovanovich, 1987), p. 454.
23. Naess, "How my philosophy seemed to develop," p. 223. For more details, see Richard McKeon and Stein Rokkan, eds., *Democracy in a World of Tensions* (Chicago: University of Chicago Press, 1951). Naess, as the scientific leader of the project, was viewed as a UNESCO administrator; he was only credited as being the author of the questionnaire itself and the summary paper, although he was intimately involved with the project at all levels.

SERIES EDITOR'S INTRODUCTION

24. Naess went on to perform a reconnaissance of Tirich Mir (25,263 feet) in the Hindu Kush in the summer of 1949. He then led the successful Norwegian first-ascent team in 1950. The expedition, which included botanical and geological assessments of the region, is chronicled by the team members in Naess et al., *Tirich Mir: The Norwegian Himalaya Expedition*, translated by Sölvi and Richard Bateson (London: Hodder and Stoughton, 1952). Naess successfully pursued a second, vastly more technical expedition to Tirich Mir in 1964. His "The south wall of Tirich Mir East," *Himalayan Journal* 26 (1965): 97–106, discusses this expedition and includes interesting commentary on expedition philosophy and climbing ethics. The article appears in SWAN X, along with other papers on Naess's relationship to mountains and views on mountaineering.
25. Arne Naess, "Reconnaissance, 1949," in *Tirich Mir*, p. 22.
26. See *Life's Philosophy* (note 2); Arne Naess, *Gandhi* (Oslo: Universitetsforlaget, 2000); Arne Naess, *Det Frie Menneske: En Innføring I Spinozas Filosofi* (The free human being: An introduction to Spinoza's philosophy) (Oslo: Kagge Forlag, 1999); and Øyvind Grøn and Arne Naess, *Introduction to General Relativity and Its Mathematics* (Oslo: Høgskolen i Oslo, 1998).
27. See Gullvåg and Wetlesen's *In Sceptical Wonder* for Galtung's "Gandhian themes" essay on what he calls Gandhian topics and Naess's way of dealing with them in *Gandhi and Group Conflict*. Naess's other books on Gandhi are *Gandhi's Politiske Etikk* (Gandhi's political ethics), coauthored with Johan Galtung (Oslo: Johan Grundt Tanum, 1955); *Gandhi and the Nuclear Age*, translated by Alastair Hannay (Totowa, NJ: Bedminster Press, 1965); and *Gandhi* (Oslo: Universitetsforlaget, 2000).
28. Arne Naess, *Equivalent Terms and Notions in Spinoza's Ethics* (Oslo: Filosofisk Institutt, Universitet i Oslo, 1974).
29. For a discussion of nonanthropocentrism as part of an ongoing historical tradition with ancient roots, see George Sessions, "Ecocentrism and the anthropocentric detour," in *Deep Ecology for the Twenty-First Century*, edited by George Sessions (Boston: Shambhala, 1995), pp. 156–83. For details on Douglas's effort to save the Everglades, see Marjory Stoneman Douglas, *The Everglades: River of Grass*, rev. ed. (Sarasota, FL: Pineapple Press, 1987).
30. See Arne Naess, "The shallow and the deep, long-range ecology movement: A summary," *Inquiry* 16 (1973): 95–100 (in SWAN X). For a more detailed, mature version of deep ecology, see Naess, "The deep ecology movement: Some philosophical aspects," *Philosophical Inquiry* 8 (1986): 10–31 (in SWAN X). For a concise overview of deep ecology that chronicles its key evolutionary changes and identifies the distinctions among the "deep ecology approach to ecophilosophy," the "deep ecology movement," and Naess's

SERIES EDITOR'S INTRODUCTION

"Ecosophy T" (a particular deep ecological total view), see Harold Glasser, "Deep ecology," in *International Encyclopedia of Social and Behavioral Sciences*, edited by Neil J. Smelser and Paul B. Bates (Oxford: Pergamon, 2001), pp. 4041–45. For a detailed discussion of deep ecology as an ecophilosophical approach with special attention to its policy implications and a discussion of deep ecology's relationship to Naess's earlier philosophical work, see Harold Glasser, "Naess's deep ecology approach and environmental policy," *Inquiry* 39 (1996): 157–87 (reprinted in Witoszek and Brennan's *Philosophical Dialogues*).

31. For anthologies on the deep ecology movement, which include articles by Naess and other deep ecology supporters, see George Sessions, ed., *Deep Ecology for the Twenty-First Century* (Boston: Shambhala, 1995), and Alan Drengson and Yuichi Inoue, eds., *The Deep Ecology Movement: An Introductory Anthology* (Berkeley, CA: North Atlantic Books, 1995).
32. Naess rarely responds directly and definitively to these criticisms—this is not his nature. Siri Naess, however, made an interesting effort to explore the potential of using Naess's Ecosophy T as an inspiration for a feminist normative system in her "Self-realization," in *In Sceptical Wonder*, pp. 270–81. She concluded that while Ecosophy T and her System F have much in common, Ecosophy T goes further by extending to all living beings its concern for activeness and creativity in relation to problems, egalitarianism, and support of the suppressed and exploited.
33. Henry Adams, *The Education of Henry Adams* (New York: Modern Library, 1931), p. 451.
34. Paul Wienpahl, *The Radical Spinoza* (New York: New York University Press, 1979), p. 154.

Author's Introduction to the Series

At ninety-two it is a great honor to be still alive and to witness the publication of my selected works in English. Few philosophers have their work published in a series, fewer still receive this honor before they die. When I was originally approached with the idea of publishing my complete works, I was overwhelmed and overjoyed, but added that not all my books and articles were important enough to merit such an honor. Selected works? Yes, and I am extremely grateful for this initiative and the final result, which presents a representative selection of my work from the earliest to the most recent. [*The Selected Works of Arne Naess* are hereafter referred to as SWAN.]

My interest in philosophy began with Spinoza's *Ethics*, which as a seventeen-year-old I was fortunate to read in Latin. I appreciated Spinoza's grand vision and trusted him implicitly as a person. I accepted that human beings could, and should, have a general outlook with the grandeur of Spinoza's, but I recognized that our individual views on this grand scale will not be identical. Through the years I have realized that there is a splendid variety of interpretations of Spinoza (SWAN VI and IX). His texts are exceptionally rich. As the years have gone on, I have focused on how he leads us to realize we can increase our freedom and sense of connection with the world through strengthening and intensifying our *positive* emotions. For example, loving and caring for our place and others leads to an expansive sense of being part of a much larger world. Emphasizing hatred and anger, on the other hand, makes us feel smaller and isolated from the world. Spinoza, as I interpret him, would express this by saying that "We are as large as our love." Increasing our freedom as human beings leads us toward life in communities colored by friendship, sharing joy and sorrow.

Before I left gymnasium [the end of secondary education] the headmaster asked me, "What do you intend to be?" My immediate answer was

AUTHOR'S INTRODUCTION TO THE SERIES

"A philosopher." In fact, I had already conceived of myself as one. I viewed the writings of many contemporary philosophers that I was familiar with, however, as vague and airy and certainly not as inspiring as Spinoza.

My doctoral thesis in philosophy of science was an effort to remind us that in science the content of a theory is not independent of research behavior—the activities of observing, confirming, disconfirming, and so on, and that these are set within a deep context of place, history, and culture. Later, as a postdoctoral researcher at the University of California at Berkeley, I studied the behavior of experimental psychologists doing animal research.

In 1934 and 1935 I studied in Vienna and while there became a member of the famous Schlick seminar, the main discussion group of the Vienna Circle. Their quest for clarity and cordial cooperation in pursuit of knowledge led me to appreciate that "What do I mean?" is an open question. I concluded that we never intend to express anything extremely definite, even in mathematics or symbolic logic. I saw the importance of using empirical methods to find out how we actually use certain expressions and sentences. I developed and applied a wide variety of such methods, which became part of the core for the empirical semantics that runs through my work. I continued to do this type of research into the 1990s, my last project being one in which I questioned experts and policy makers about their ideas of values intrinsic to the natural world (in SWAN X).

In one of my earlier studies, I reviewed about 700 articles from philosophers concerning their use of the word *truth*. For the most part, I found these unconvincing and soon started on empirical studies of the use of *truth* among ordinary nonprofessional people and schoolchildren (in SWAN VIII). Many philosophers seemed to assume that ordinary people hold very naive views about these deep matters. I found through research that, on the contrary, the views articulated by these "ordinary" people were every bit as sophisticated as those held by professional philosophers. This reinforced my conviction that, generally, we greatly underestimate ourselves. Much academic philosophy was narrowly focused and abstract. Philosophers who elicited interest in wide-ranging issues of practical and global importance, such as nonviolence and social justice, have in my lifetime said things that were considered creative, but often too far out. In spite of consistent proclamations that science neither would nor could take over all the problems

AUTHOR'S INTRODUCTION TO THE SERIES

discussed by philosophers, I tried to argue in ways that reminded readers of science done as open inquiry, and I tried to emphasize that it is occasionally necessary to perform empirical research to illuminate or support a philosophical viewpoint.

My empirical and historical research led me to realize that there are no certainties and that there is a great diversity in our spontaneous experience as well as endless ways to describe and appreciate the complexities and values of the world. Thus, I realized that I am one of those lifetime seekers that the ancient Greeks called a *zetetic* (see SWAN II and VIII). From my research on scepticism and the foundations of science and logic, it became clear to me that pluralism (every event has many descriptions and possible outcomes), possibilism (anything can happen), and a healthy scepticism (always seeking the truth but never claiming it) make up the most consistent approach to respecting the perspectives and experiences of others, human and nonhuman.

From my empirical studies of semantics, and from my knowledge of several languages, I came to appreciate the complexity of communication. Being committed to Gandhian nonviolent communication, I saw the importance of avoiding dogmatism and fanaticism. One of the most important discoveries coming from this research, leading to the publication of my major book, *Interpretation and Preciseness* (SWAN I), was the insight that we cannot avoid values in any field of endeavor or research. There are no value-free inquiries or theories. Even if we refuse to express our values, this is itself an expression and choice of values. We must, therefore, be clear about our value choices and try to make them explicit. The choices we make, as Spinoza pointed out, shape the quality of our lives, and values emphasizing positive emotions or feelings are expansive and lead to our growth. We must become ever more aware of our choices and the values involved. Even pure logic assumes certain norms. Empirical research can shed light on these matters. My colleagues in philosophy often found my empirical work perplexing. I, in turn, grew to underrate the necessity of visiting great centers of philosophy, as I preferred to be close to or in the mountains.

When I visited the United States, it was mostly to climb in the mountains or walk and camp in the desert. On one fortunate visit, I dropped in at the graduate students' discussion room at Harvard. Speaking with students who were writing their doctoral theses in philosophy, I understood that my

AUTHOR'S INTRODUCTION TO THE SERIES

knowledge of contemporary philosophy, and of recent important contributions in its various fields, was narrowly limited to special themes of lively personal interest. Even in later years, the tendency to take personal inclination very seriously colored my contribution to the philosophical literature. As can be seen, though, from the titles in these *Selected Works*, my strongly felt interests span a rich variety of fields, philosophical traditions, and movements.

Since childhood I have experienced an intense joy in being together with animals and plants and in contemplating the immense evolutionary development of life on earth over millions of years. From an early age I also developed an intense love for mountains and for being in them. Much of my creative philosophical work was done at Tvergastein, my mountain hut in Norway (see SWAN X). My devotion to outdoor life is in the Norwegian tradition called *friluftsliv* (literally, free-air-life). In many respects, I approached philosophical and cross-cultural studies as if I were a field ecologist or naturalist. It was against this background that my work from the 1960s onward focused with close attention on cultural diversity, biodiversity, sustainability, and the deep ecology movement.

My work since the Second World War has been increasingly within movements such as those furthering social justice, peace, and ecological responsibility. During the war, I engaged in anti-Nazi activism, and from that time also in promilitant Gandhianism, a nonviolence that is not pacifist in the usual sense but insists that if it is a bloody fight for justice against injustice, we seek "the center of the conflict" and, if necessary, cooperate with people who use arms. During the Cold War, I participated in the "third side," against both communism and extreme anticommunism, for example, as the scientific leader of a UNESCO project bringing Marxist and anti-Marxist politicians and political science researchers together in an unbiased discussion of the essence of democracy and freedom. Some of the relevant publications are included in SWAN IX.

The broad spectrum of books and articles included in the *Selected Works* represents, in many ways, a chronicle of my passions and influences. The *Selected Works* record, albeit in an inevitably fragmentary way, one possible expression of these. My dream and hope is that some readers will be inspired by their sheer variety, and that young philosophers will be encouraged to let strong personal motivations steer their studies.

AUTHOR'S INTRODUCTION TO THE SERIES

Working habits vary. Some people write an article and go on to the next without looking back on the old one; others come back from time to time, radically revising and changing the old one. The latter is my way of working. Lecturing in many places about these subjects, I have found it natural to revise the old manuscripts until sometimes very little is left of the original. Therefore, I have always viewed my writing as preliminary; a year, five years, ten years after publication of the first editions I have itched to revise, *thoroughly* revise them. When my first book was printed in 1936, I went to watch the hulking presses printing out one page at a time. I was terrified, thinking of mistakes or some awkward sentences being duplicated again and again.

When I was offered the opportunity to have a selected-works series published, I immediately thought I would like to review all my work and ask how, from today's perspective, I might answer the difficult questions I had earlier attempted to probe. Such a task would have been a particularly difficult proposition, because although many of my books and articles contain new ideas, the ideas are often not developed as well as I might have hoped. But alas, I am saved—at my age there is not time for me to accomplish such a comprehensive reevaluation of my work; I do not even have the capacity to do it now in any case.

Who could contemplate undertaking a publishing project of such ambitious proportions? Douglas Tompkins, mountaineer, entrepreneur, protector of wilderness in Chile and Argentina, and creator of the Foundation for Deep Ecology, is such a person. "Miracle Doug," as I call him, likes the idea that the deep ecology slogans and the deep ecology approach were introduced by a philosopher. I am grateful to him for his firm conviction, inspiration, and great generosity. My gratitude, however, extends well beyond my thanks to Doug, to others who have supported and championed this project.

Quincey Imhoff, when executive director of the Foundation for Deep Ecology, supported SWAN with generous grants and other contributions. SWAN has also benefited from faithful assistance and cooperation in the preparation and editing of the manuscripts. The late Professor Ingemund Gullvåg prepared the initial translation of *Which World Is the Real One?* (SWAN III). Professor Alastair Hannay translated the first edition of *Communication and Argument* (SWAN VII) and offered invaluable suggestions

AUTHOR'S INTRODUCTION TO THE SERIES

for improving the readability of the first editions of *Scepticism* (SWAN II), *The Pluralist and Possibilist Aspect of the Scientific Enterprise* (SWAN IV), and *Gandhi and Group Conflict* (SWAN V).

Most of all, however, I am grateful to Harold Glasser, the series editor, and his assistant, Kim Zetter, who oversaw all aspects of the project from design to production. Glasser's unique combination of intellectual tenacity, attention to detail, mastery of my work, and cooperative spirit made him a natural to take on the monumental task of selecting and editing my works. Glasser not only labored to improve the English and clarity of each manuscript, but his keen ability to ferret out countless technical and pedagogical errors has resulted in substantial new editions of volumes II–VII that are both far more comprehensible and accessible than the originals. I thank him for his valiant work on this project, both during his stay in Norway as a visiting Fulbright professor, where we collaborated on a strategy for revising the previously existing material, and in the subsequent years it has taken to complete the project.

From the beginning of the SWAN Project in 1994, Alan Drengson has encouraged and helped to move this work forward in numerous ways. Especially in the last crucial stages of completing volumes I, VIII, IX, and X, his help and editorial oversight have been invaluable. Thanks for his devotion, good humor, and positive enthusiasm. Thanks to both Drengson and Tim Quick for their extensive bibliographic research. Thanks to Bill Devall for his support and encouragement and especially his help on the completion of volume X, *Deep Ecology of Wisdom*. Thanks to Anne Collins for her outstanding work as the copyeditor of the SWAN volumes. Thanks to George Sessions for his support and encouragement.

Last, but certainly not least, immeasurable thanks go to my wife, Kit-Fai Naess, who has worked beside me throughout the years to provide invaluable assistance, encouragement, and inspiration.

Arne Naess

2004

Preface

by Bill Devall and Alan Drengson

Arne Naess is a mountaineer, activist, teacher, scholar, philosopher, and national hero in his native Norway. When he attended the famous Vienna Circle discussions during the 1930s, he was impressed by the compassion and assistance that members of the circle gave to one another. During that time he also began studying Gandhi's nonviolent direct action campaigns in India. He later wrote a book (SWAN V) articulating Gandhi's norms of nonviolent direct action.

Born and raised in Norway, where outdoor life, or *friluftsliv*, is part of the national culture, Naess began climbing as a child. As a young man he built a hut high in the mountains, a place he calls Tvergastein. At Tvergastein and at the University of Oslo, he explored the history of Western and Eastern philosophy and also the history, biology, and geology of Mount Hallingskarvet, where his hut is located. At seventeen he started reading Spinoza's *Ethics*. He found in Spinoza's work an inspiring account of emotions that he has explored in his writings and personal experience. His own life's philosophy is called Ecosophy T, as it was born in the mountains at Tvergastein. Naess coined the word *ecosophy* from the ancient Greek words *ecos* for household place and *sophia* for wisdom. An ecosophy is a personal philosophy of life aiming for ecological wisdom and harmony.

The articles in this anthology were written during the decades from the 1960s through 2000. They represent Naess's evolving reflections on the deep ecology movement, diverse ecosophies, and ecophilosophy. He was the first to use the words *deep ecology movement* to refer to the international grassroots ecology movement that is united by a number of platform principles he calls the Eight Points. The first two principles emphasize the intrinsic value of all beings and of richness and diversity in life-forms and

cultures. Some of his main works in semantics, logic, philosophy of science, comparative philosophy, Gandhi, and Spinoza are found in other volumes of the SWAN series.

The theoretical and philosophical underpinnings of Naess's approach to deep ecology are found in this volume in section 7, "Understanding Naess's Unique Approach to Deep Ecology," and section 8, "Theoretical Dimensions of Deep Ecology and Ecosophy T." Readers who are particularly interested in the technical philosophical aspects of his ecophilosophy approach can read those sections before reading his work relevant to public policy issues and lifestyles, which are earlier in the volume, sections 2 and 3. Readers who want to understand his approach to the deep, long-range ecology movement could begin by looking at the "apron diagram" and his explanation of it in section 1, "The Long-Range Deep Ecology Movement."

The broad and representative selection of Naess's articles in this anthology should dispel some of the misconceptions about ecophilosophy and the deep, long-range ecology movement. We hope that new generations of readers, scholars, and ordinary people will appreciate the range and depth of his work. Throughout his career he has advocated what he calls "radical pluralism" and argued that philosophy is not restricted to academically trained philosophers. People in all walks of life, holding vastly different "ultimate norms," that is, different religious and philosophical positions, should develop their own ecosophy and total view. They can apply principles of the deep ecology platform to their lifestyle, politics, social policies, and community. They can better articulate their "sense of wonder" for nature and what they can do to lessen their own impacts on their place and the world.

Naess turned his attention to environmental issues and ecophilosophy during the 1960s. He read books by Rachel Carson, and her sense of wonder for nature inspired him to work on shifting to quality of life values and a nature-oriented sensibility that finds joy in the world of diverse beings. Carson's sense for the interconnected nature of the world and her scientific evaluation of the negative effects of massive herbicide and pesticide use are described in her book *Silent Spring* (1962). This turned him to thinking about the accelerating negative impacts on nature by contemporary industrial civilization and larger issues of ultimate aims and norms.

His first foray into ecophilosophy was in 1965 when he wrote a short

essay, "Nature ebbing out," published here for the first time. In the United States, the first Earth Day in 1970 was a historical landmark of the widespread concern over the accelerating destruction of nature by the forces of industrial society, rapid human population growth, and the rampant destruction of habitat for native species.

He presented his well-known seminal paper "The shallow and the deep, long-range ecology movement: A summary" in 1972 at an Eastern European conference on the future of research. In this paper, he describes the "shallow ecology movement" as an instrumental valuing of nature. It involves the "Fight against pollution and resource depletion. Central objective: the health and affluence of people in the developed nations." He said that this mainstream view is not a deep questioning approach. It assumes that we can go on with business as usual without deeply examining and changing our values and ultimate purposes. He describes the "deep ecology movement" as involving the recognition that we have to examine our basic relationships, values, and priorities with respect for each other and the natural world. Living beings are good for their own sake and have intrinsic value. This deep questioning approach leads us to see how our values, whether explicit or assumed, engender lifestyles that fail to honor our ecological responsibilities and the need for fundamental changes in industrial society. Ecologically based approaches involve "Rejection of the man-in-environment image in favor of the relational, total-field image." We are part of the larger ecological context and cannot stand outside it. We participate in it and affect it no matter what we do. It supports and affects us.

Some critics felt that the "shallow" and "deep" terminology was inappropriate. Naess replied that he was pointing to our usual "shallow" way of thinking and comparing it to a deeper questioning that could yield surprising insights and different, more creative ways of thinking, acting, and being in the world.

Section 1 of this anthology includes articles reflecting his emerging and changing articulation of what he calls the "basic intuitions of the deep ecology movement." These articles in this book span four decades from the 1960s through the 1990s. They expand on themes that Naess considers central to the deep, long-range ecology movement. He consistently uses the term *movement* when he discusses deep ecology. As an activist for peace, social justice, and ecological responsibility, he was deeply influenced by

Gandhi's work on nonviolent, direct grassroots action. He continues to say that the vast majority of supporters of the deep ecology movement, whether they use the phrase "deep ecology" or not, share an "intuition" that everything hangs together, and they feel a broader identification with nature. They seek to develop their own ecosophy or lifestyle to realize ecological wisdom. Naess is a long-term advocate for the peace and social justice movements. He points out that both of these movements should cooperate with the ecology movement. For the health of the planet and the health of human beings, an overriding norm should be "Ecological sustainability!"

Naess says that the deep ecology movement is one of the three great international grassroots movements of the twentieth century; the other two are the peace and social justice movements. He says that while these movements should cooperate with each other, the ecology movement has a special responsibility for conversations with and conservation of nature. The relationship between what he calls "ultimate premises," "the platform of the deep ecology movement," and specific coalitions for social change can be encouraged between greens, social justice advocates, and the peace movement, as briefly described in the article on the "apron diagram." In that explanation, he makes clear that his study of the international ecology movement is connected to a larger appreciation for grassroots movements. He distinguishes between four levels of discourse when discussing these issues.

The level of everyday life assumes certain values in our ordinary practices. When we begin to seek deeper clarification of our ultimate values, we are involved in deep questioning that leads us to state our ultimate norms and views about the nature of the world. The three great international grassroots movements each have a number of principles of a general nature that serve as a uniting ground, even though these movements are supported by people from different nations, cultures, and religions who hold different ultimate philosophies. The platform principles of the deep ecology movement proposed by Naess are stated in section 1 of this book. The four levels of discourse he describes are: ultimate philosophies, platform principles, policy formulations, and practical actions. There is great diversity at the level of ultimate philosophies but some unity at the level of platform principles. In the three great movements referred to above, there are platform principles that serve to unite people at the global level, although they have different personal philosophies and cultures. Policy and practical

action are also more diverse since they are adapted to specific cultures, places, and individuals. Naess says that the ecology movement is enriched by this wonderful cultural diversity and that it is unwise to try to have only one ultimate philosophy or religion in the world. Instead, his vision is of a great diversity of cultures and ecosophies. Followers of the deep ecology movement are inspired to work together locally and globally to move our societies and personal lives toward sustainability. Naess is a celebrant of individual and cultural diversity, believing that this is nature's way and that these are all interdependent with ecological diversity.

Naess continually encourages people to consider their own way of living in the world, both in politics and in daily life (sections 2 and 3). As a scholar of Spinoza, he urges us to consider the relevance to our personal lives of Spinoza's philosophy of feelings. By focusing on positive emotions, we increase our freedom and sense of belonging to a larger world. While many other writers evoke despair and hopelessness in our contemporary situation, Naess emphasizes various forms of joy. We can find joy in watching small birds, walking among wildflowers, enjoying companionship with friends, family, and nature. In the face of continuing, daily assaults on wild places, he advises us to have "a sense of joy in a world of fact" to keep our balance and inspiration. One of his favorite slogans is "The front is very long." There is a place in the deep, long-range ecology movement for all people who share the desire to dwell responsibly in this world. People can contribute to the well-being of other human beings and of nature in a wide variety of ways, including doing beautiful actions. His article "Beautiful Action: Its Function in the Ecological Crisis" (chapter 16) reflects his appreciation for the intrinsic value of certain types of action.

Naess has many sources of joy based on the Norwegian tradition of "free-air-life" (*friluftsliv*), which developed more than a century ago in Scandinavia as a social movement to spend more time outdoors through skiing, mountaineering, orienteering, and other forms of intimate contact with the natural world. His ecophilosophy is grounded in outdoor living and activities, empirical studies, and philosophical reflections.

As a mountaineer, Naess has been inspired by the mountains to write some of his most insightful and deep articles in ecophilosophy. He leads us to see how we can feel that mountains are sentient beings, and in stories they are also metaphors and mythic places, where he learned deep lessons

encouraging articulation of his own Ecosophy T. As already mentioned, the *T* is shorthand for Tvergastein, the mountain hut at which he wrote many of his books and articles. His use of mountains to illustrate lessons in deep-ecology living in balance is reflected in section 5, "The Significance of Place: At Home in the Mountains" and in other articles published elsewhere. His use of mountains in personal myth and as metaphors is reflected in this anthology in such articles as "Metaphysics of the Treeline," "Modesty and the Conquest of Mountains," "Some Ethical Considerations with a View to Mountaineering in Norway," and "The South Wall of Tirich Mir East."

Naess's work in ecophilosophy is connected to his broader reflections on "total systems." This book includes a selection of his reflections on "ultimate premises" and his methodology of "radical pluralism." These articles are essential to understanding the approach he takes to ecophilosophy. Articles in section 7 express his approach to and use of ontology and normative systems and include "Reflections about Total Views," "Notes on the Methodology of Normative Systems," and "The World of Concrete Contents."

Consistent with his emphasis that his approach to deep ecology is not restricted to academic philosophers, Naess has written articles on resolving social conflicts between human beings and wild animals such as whales, bears, and wolves. He emphasizes "nonviolent, direct action" based on Gandhi's ethics of conflict resolution. Examples of these articles in section 4 are "Self-Realization in Mixed Communities of Human Beings, Bears, Sheep, and Wolves," "The Tragedy of Norwegian Whaling," and "Philosophy of Wolf Policies I: General Principles and Preliminary Exploration of Selected Norms."

Naess has consistently encouraged supporters of the deep, long-range ecology movement to reflect on contemporary subjects of lifestyle, population growth, and sustainability of human communities. Articles on these issues include "Deep Ecology and Lifestyle," "Cultural Diversity and the Deep Ecology Movement," "Sustainable Development and Deep Ecology," and "Migration and Ecological Unsustainability." In contrast to some writers, he stresses that wildness and protection of wild places, some of which are inhabited by indigenous peoples, are essential for wise policies in all nations. He appreciates the wisdom in the lifestyles of many indigenous peoples as consistent with the platform principles of the deep ecology movement.

PREFACE BY BILL DEVAL AND ALAN DRENGSON

This anthology concludes with section 9, "Deep Ecology and the Future," which includes some of his reflections on issues for the twenty-first century and beyond. He believes the problems are huge, but so is human resourcefulness. He encourages us to live richly by appreciating the diversity of cultures and beings in this world we all share. He says that we should seek rich experiences using simple means, and take joy in simple pleasures. We can have a very rich life with low consumption of material things.

This volume concludes with a selected bibliography of Naess's works in English. It provides source material for scholars who want to pursue research into the development and formulation of Naess's lifework.

At ninety-two Naess continues to practice nonviolent direct action. He has done so throughout his long and distinguished career as a philosopher, activist, and articulator of deep ecological and social values. He also enjoys Gandhian tennis and boxing.

We hope that readers gain intellectual understanding of deep ecology through the articles in this anthology. We hope they will be inspired to articulate and live their own ecosophies, personal lifestyles committed to nonviolence, harmony with nature, and living fully and joyfully in the world. Let us go beyond what is merely required to act in beautiful and generous ways, giving gifts back to Gaia and our home places.

Bill Devall and Alan Drengson

2004

Author's Preface

Reflections on My Papers and the Selections in SWAN VIII–X

During my active life as a researcher and author, I have published far too much to be a polished writer. I have a long practice of working a set number of hours each day, and at ninety-two I have lived a long life. I hold to this even when I live in my mountain hut, Tvergastein. Over the years I have carried in many precious big reference books to put in its “library.” Writing philosophy in the hut, while looking over a vast mountain and alpine landscape, gave me a different feeling and perspective than when working in my office at the university or in my study at home. Each setting is very different and seems to bring out different aspects of the same subject and of myself. There are also the differences in dialect and local customs that fed my search for an ever more complete total view. To me this diversity is good to appreciate for its own sake. Writing, like teaching, is a way to find out things rather than just a dull report on the past. Writing philosophy for me is an ongoing project, a kind of meditation; in a sense, it is something that I must continue daily, because I continue to have more and more gestalts integrated into my total view with feelings of wholeness.

I never regarded the papers or even the books I wrote to be final drafts, but always works in progress, since my life, philosophy, and worldview are all in an ongoing process of change. Altogether, I have probably written thirty or so books published in various languages, and some in several languages. I have had many coauthoring adventures. There are manuscripts of books started but still in progress. I probably have some finished but unpublished book manuscripts. In the area of smaller-scale publications and writings, there are many kinds of pieces from very short to very long—for example, short reviews, long reviews, discussions, definitional pieces, long

AUTHOR'S PREFACE

single-subject essays, historically oriented papers, formal logic pieces, empirical studies, studies of conceptual systems—pieces on so many different subjects that I am somewhat embarrassed by my lack of attention to other things. I almost always write with passion but am not so keen to keep detailed records of my scholarly research, and at Tvergastein these resources are limited.

I have hundreds of manuscripts of articles, reviews, and other nonfiction pieces in my collection. The SWAN project has been a wonderful undertaking because it helped me to get my works organized to be more accessible to a larger audience. My dear wife, Kit-Fai, has been so good to my work that I can only describe her acts as beautiful. She, along with Harold Glasser, Alan Drengson, and others, plied me with endless questions about my works and individual pieces, for references, for greater clarity, for a better organization in time, and so on. The result is an assemblage of more than seven hundred published and unpublished papers.

We were choosing books to publish and papers for the anthologies of my selected works in English. We settled on seven books to be republished as the first seven volumes in the SWAN series. After some discussion with others, we decided to have three volumes of my papers for a total of ten volumes. We pondered what to include in the anthologies of papers and how to organize them. The result is a collection of writings that is a very deep and broad representation of the large number of papers of my work. The first two volumes are devoted to all the subjects I have worked on, from earliest to latest. These collections (SWAN VIII and IX) are organized in thematic sections somewhat chronologically. We decided to devote the third collection to my writings on deep ecology, because they are the most complete example of a total view that I have been able to offer.

Deep Ecology of Wisdom (SWAN X) is in many respects the most complete volume in the series in that it shows the total sweep of my work. It shows how my comparative and ecological inquiries brought together all my interests and studies. It was also a natural place for me to apply empirical semantics guided by a personal mythology, an undertaking that in the 1990s was offered in my book *Hallingskarvet: How to Have a Long Life with an Old Father*. The Tvergastein article in SWAN X (chapter 33) is an example of the philosophical, empirical, and semantic studies that were saturated with this place through time. SWAN X also includes a comprehensive bib-

AUTHOR'S PREFACE

liography of my works in English, which gives readers the most direct access to this whole body of work. Everything in my work is represented, from Spinoza's philosophy on emotions and Gandhian nonviolent communication, to essays on ontology and mountaineering. All of my work comes together in SWAN X. Readers will see the role of my desire to further nonviolent communication and my scepticism about there being only one worldview that is "true." These reflect my love of diversity.

I have mountain perspectives on worldviews. So many of them are beautiful and so suitable to their places! It is a wonder for me to behold this creative diversity. I found the same on the ground around my hut in the extreme mountain arctic conditions there. Even there, worlds within worlds! In that setting, life energies and mysteries are ever present. I came to approach all research from philosophy to ecology as if I were a field naturalist. This is reflected in my writings. Writing for me is a process of creation, discovery, and systematization; an art that helps me to assimilate and be whole with the more I see, as time goes on, from so many different perspectives. A synoptic view, almost holographic, emerged in my writings in many places. Traveling a lot added to learning these things.

Questions of meaning, preciseness, and interpretation are central to all that I do. We greatly underestimate ourselves in relation to our capacities, but we also greatly overestimate (violently at times) the seeming importance of disagreements over words that are frankly not very precise. The very effort to become more precise is itself an enlightening process that, once started, continues with a natural flow on its own. It is a settled practice that flows through my writing. Gandhian nonviolent communication also runs through my daily writings and practices; it is a second nature. My writings are active engagements, and for this reason I do not find them boring or painful. It is a joy to write about these many subjects that have engaged my passionate interest, especially in relation to the natural world.

Readers of these three volumes of selected papers who want to see my work in a more or less organic way that is roughly historical should read these papers in order, SWAN VIII through X. Those who want an overall look at my whole program of research, writing, and lifestyle should first read volume X. They could also read the last two chapters in SWAN IX, "How My Philosophy Seemed to Develop" and "Deep Ecology and Education: A Conversation with Arne Naess."

AUTHOR'S PREFACE

I have been reflecting on my writings and the way I approach and feel about this work. Let me say something about the different research hares I have chased and the lesser peaks and major mountains I have climbed in the process. I will do this by focusing on a recent ten-year period, from 1987 to 1997.

What has made me eager over the decades to continue writing articles in such great numbers? My spontaneous answer is that these are important questions not only for me but also for everything that it is worthwhile to sustain or develop further. By chance, this very sentence exemplifies a question of this kind: what is meant by “not only for me but . . .” and who is the “me” here? Among such questions there are some to which, as an optimist, I feel I can still contribute. These questions fall into two categories: those related to the ecological crisis and those philosophical questions far away from the ecological crisis. Writing for me is a series of adventures that are part of a larger mythopoetic nature narrative.

I thought that in recent decades the environmental crisis articles would make up the majority of my papers during this time, but to my astonishment that is not the case. For example, in the five years from 1991 to 1995, 61 percent of the articles published [by 1997] deal with general philosophical issues, and 68 percent of the unpublished ones are of that kind. Some of the articles are short, only five pages, which in part explains the large number of articles—78 published and 130 unpublished—during this time. I do very little to get my articles published.

One of the philosophical articles has the title “We need philosophies as life- and worldviews.” Many articles, some used in lectures in various parts of the world, deal with what I hope will characterize university philosophy in the twenty-first century: addressing central questions of what constitutes a meaningful life, diversity of cultures, and the nature of reality. Who are we, where are we, and what do we want most? The last question concerns value priorities. University philosophy, *not* the philosophy of “the man in the street” or of writers in general, has been centered on our talk itself, not on what we talk about. It is often talk about talk. The latest fad has been to stop talking about the variety of conceptions of the world in favor of talking about what are called social constructions, just to mention a focus different from life philosophy and worldviews. (Is nature a big *social* construction?) Clearly, as soon as we start *talking* about anything, for example,

about what is “talk,” what is “social,” and what is a “construction,” we are using a *social* creation, *intersubjective* talking. This does not undermine our excellent, direct relations to the matters we talk about and, I am glad to say, have different views about, some of which are quite personal and individual.

I will not bother to explain all the approaches I have taken within the philosophical sphere. I shall only offer some hints. In ethics I have taught, lectured, and written on the conception of being a “traitor,” a word applied to tens of thousands of Norwegians who in different ways were “on the wrong side” during the Nazi occupation of Norway by Germany. Many who did not deserve it were put in prison. Many believed that Hitler would win the war and that the continued independence and freedom of Norway depended on maintaining good relations with the occupying power.

Norway twice has said “No thank you!” to joining the Common Market, now called the European Union. I have written against joining on the basis of a philosophy that favors cultural differences. The EU is a big step in the direction of economic globalization, a formidable obstacle to cultural integrity and diversity. Some call this effort of mine “applied philosophy,” and I agree.

I have called a class of life- and worldviews *Spinozistic*, and my own view belongs to this class, but that does not *imply* accepting as true or valid any of Spinoza’s axioms and theorems. A long series of my articles deal with Spinoza, especially the central position of strong active emotions as a requirement for increasing our freedom and power, a rather un-Western view! I have explored and written about many Eastern philosophies, including Indian and Chinese. Some of my articles compare Spinoza’s views with Buddhist philosophies.

Gandhian studies continue with what I call the “principles of Gandhian communication,” a form of strict nonviolence. The role of the mass media in tough conflicts makes fairness of central importance. Treatment of an opponent as a fellow human being must be without blemish, even when his views seem to be, or are, horrible, despicable, and idiotic—and even if he is a mass murderer. This treatment is *compatible* with the expression of a strong and honest rejection of the views and actions of an opponent.

Felt suffering has been an important theme in my papers for many years. There is a strange, socially and politically important underestimation of acutely felt suffering and an overestimation of a quantified but not necessar-

AUTHOR'S PREFACE

ily *felt* suffering. If by chance a hundred people living distant from one another simultaneously suffer from a slight headache, this multiplicity of persons does not make the felt suffering stronger. I am deeply interested in the quality, the *feelings* of strong suffering, not some “abstract sum” of suffering.

Suppose we have a chance either to rescue a person from continued, systematic torture or to diminish the slight pain of a million people. As I see it, the choice is ethically unproblematic: rescue the tortured person! Politically, the implication is clear: much greater effort is needed to help people in certain extreme conditions. This, of course, cannot be done without angering dictators. What I call the *intensity principle* in dealing with suffering is generally not considered valid, and the possibility of saving people from continued torture is judged to be very small. As I see it, the problem is that usually only conventional means are considered. We need people with imagination, people like those who rescued thousands of tortured persons during the Second World War and the occupation.

As a philosopher influenced by analytic philosophy and an admirer of mathematical physics, cosmology, and pure mathematics, I regarded the one-hundredth jubilee (1991) of the birth of Rudolf Carnap and Hans Reichenbach as an opportunity to rethink my opposition to their philosophical standpoints and to logical positivism in general. I deeply respect their work, and especially their clearness in the matter of premise-conclusion relations. I have worked hard with a normative system that has only one ultimate normative premise, “Self-realization!” It is a result of the influence of my studies in logic and formal systems. In their work, the logical positivists encouraged each other, discussed with fairness, and used each other’s insights. They were not afraid of real disagreements. This is very unusual in intense philosophical discussions! I try to be fair and cooperate in discussions with my critics in social ecology and ecofeminism.

Going back to the five years from 1986 to 1990, I see that my papers are colored by contributions to the deep ecology movement. There is, however, a notable exception in my writings: what I call *gestalt ontology*. Ontology is an old branch of philosophy that tries to characterize what is real compared to what only appears to be real. Might a birch be bright green and joyful, or is it *really* colorless? Is joyfulness perhaps only a “projection” of joy being felt by an observer? Very roughly, my answer is that *spontaneous experiences* are direct experiences of something real. Joyfulness is

on a par with tallness and specific weight, when we only talk about pure realness. The experiences have a gestalt character. They are complex wholes, not merely atomistic.

The focus on spontaneous experience may be of positive value for deepening and intensifying positive experiences in nature. This focus also accepts the status of negative experiences. If, for example, a city dweller exclaims "Horrible, threatening" when suddenly facing a large waterfall, it is inappropriate to counter with the assertion "You are mistaken. It is really beautiful!" As to the character of being threatening, one might say that it would be a mistake to predict that the water will engulf us. This is just what gestalt ontology says. We can even have a slightly different version; it leads into rather professional philosophical terminologies. Its main thrust radically undermines the claim that only the exact physical sciences show us what is real. On the contrary, they increasingly focus on extremely *abstract structures* of what is real and do not, as sciences, describe any *concrete contents*.

As an outline of my work (from 1987 to 1997), the above gives a rough picture that is a fair description for earlier periods. I should perhaps add a word about my only published book in the 1990s: *Hallingskarvet: How to Have a Long Life with an Old Father* (1995). The main title is the name of a great Norwegian mountain; the subtitle refers to my personal relationship with the mountain. Already at age ten, I looked upon this mountain as being like a wise, benevolent father, but also as a supreme place to live. (My own father died when I was about a year old.) I found in this place an outline of my *mythopoetic life vision*. Many others, I suspect, are today creating such valuable myths of their own. I hope my writings encourage them. If so, these works will serve a useful purpose. So, finally, I am at the end of this written narrative. I invite readers to find their personal paths through this varied and multidimensional terrain of my writings. Follow your own wild passionate feelings.

Arne Naess

2004

II

A Note on the Prehistory and History of the Deep Ecology Movement

The expression originally used for the deep ecology movement was a somewhat longer one: the long-range international deep ecology movement. It was later argued that *long-range* and *international* might be defined so as to be included in the deepness. The original expression makes it not only convenient but factually well founded to start this brief history with the publication of Rachel Carson's *The Silent Spring* in 1963 and the resulting controversies elicited by the cooperation between the U.S. Department of Agriculture and the chemical industry. The controversies revealed political, economic, and technological forces that could engender future silent springs. Rachel Carson went deep and questioned the premises of her society—an essential difference from the argumentation pattern of the shallow ecology movement.

Before 1963, attitudes and opinions corresponding to some of those characteristic of the deep ecology movement are found in many, perhaps practically every culture, and as far back as we have written materials. The deep ecology movement was, soon after *The Silent Spring*, made the object of studies, mostly from special viewpoints. It seems useful, however, to retain a conception that covers all aspects of the kind of achievement Rachel Carson was known for: primarily the warnings about man-made ecological disasters magnified through the involvement of industry and agriculture; secondarily the effort to implement new policies and personal activism; thirdly the philosophical and religious view of life and what makes life meaningful, especially as the basis for an environmentally alert ethics.

The third aspect, the ecophilosophical aspect of the movement, has

This article was written in 1991. It is being published here for the first time.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

motivated the use of the term *deep ecology* for a kind of philosophy and the use of *deep ecologists* as a name of a small group of writers and theorists who use the term and support the movement. The movement is, however, a very broad social phenomenon, essentially comprising all three aspects. It asks for changes in all facets of human life.

The history of the forerunners of the global deep ecology movement and its literary supporters in the United States has been the object of a large group of studies by George Sessions (see, e.g., 1981). Of others contributing to this history, the work by the historian Stephen Fox (1981) and the philosopher Warwick Fox (1990) deserves special mention, but there are also other historical studies on a high level of interest and competence.

The complex European trend of Romanticism from the time of Goethe to the present furnishes rich materials. The history of the cleavage between attitudes and opinions characteristic of those of the deep, socially and politically committed, ecology movement and the reform or shallow ecology movement is closely connected with the history of the interaction between the Enlightenment and Romanticism, especially the background of anthropocentrism in relation to ecocentrism. The Romantic painters were more ecocentric in at least one interpretation of the term. Those terms did convey some information when they were introduced, but very little is left now because of widely different interpretations.

The philosophy of man-nature relations is one of the main features of the history of European philosophy and religion. Of the many works dealing with European background matters, Clarence J. Glacken's *Traces on the Rhodian Shore* (1967) and John Passmore's *Man's Responsibility for Nature* (1974) deserve special mention for their influence in English-speaking countries.

The "discovery" of the mountain wilderness of the Alps was important for the appreciation of territories "of no use" and for the general effort to stop the increase of human territorial domination. A special branch of the general Romantic trend experienced and described Alpine areas as awe-inspiring, superbly beautiful, and, what is still more important, full of intrinsic meaning and value. The areas *communicated* meaning of their own. The landscapes did not need human beings and they did not need to be useful to humankind to justify their existence. The art of painting convincingly showed a turn from admiration of the gardens, the artful and artifi-

cial horticulture of Versailles, the useful and moderate landscapes with human activity and concern at the center, to the admiration of magnificent, self-sufficient landscapes with little or no trace of human purpose. Forests were painted with trees rotting, and life-forms shown that depend upon the presence of “dead” trees.

Wild nature was considered vitally useful for the realization of *human* potentials as soon as the worries of poverty were transcended. Analogous trends had occurred on a vaster scale outside Europe.¹ Recently, the religious meaning of high mountain peaks for the Incas has been brought to light. The old Babylonian culture also made reference to the religious meaning of mountains. “In Mesopotamia, the ‘mountain’ is the place where the mysterious potency of the earth, and hence of all natural life, is concentrated.”²

The art, philosophy, and religions of the East contained trends corresponding to those of European Romanticism. Because of the absence in the East of a uniquely strong rationalist tendency, these trends did not acquire labels like “romantic.” The European Romantic trend in painting is now looked upon *as a form of realism*. It favors a realistic appreciation of human relations to nature. The dominant modern Western trend has been unrealistic and self-destructive.

There is a prevailing ahistorical notion that enthusiasm for and a spiritual cult of the “useless” and “barren” has only been present among the well-to-do. History, however, tells us that just as there always have been poor people traveling to Mecca, there have been poor people struggling to reach and enjoy “hostile” landscapes. Economically reckless feasts have always been a central feature of many cultures. They often left the poor considerably poorer for a long time afterward, but without loss of life quality. One should be careful not to underrate the feelings among the poor for the great and so-called useless. Such feelings may be stronger than among the industrial rich.

The widespread frustrations following the two world wars and the war in Vietnam undermined the arrogant Western notion of progress and its self-congratulatory application of the concept of “advanced society” to a very small part of humanity. A new cultural anthropology emerged with no presumptions of modern Western cultural preeminence.

A work like Marshall Sahlins’s *Stone Age Economics* (1972) opened up vi-

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

sions of economic systems with less stress and the opportunity for deeper cultural activity than those afforded the average person in the richest industrial nations. The new cultural anthropology inspired belief in a future with a wealth of cultural differences proportional to the wealth of human cultural potentials, and compatible with full richness and diversity of non-human life-forms. Cultural anthropology and the study of human cultures show convincingly that gigantic administrations, populations, and technical machinery are not *necessary* as a basis for reaching fundamental human goals and purposes.

All these trends were of importance when the new emphasis on ecology made itself felt in the 1960s. The general prehistory of the deep ecology movement has yet to be written. There is no easy way to establish the roots of a movement, and the identity of the movement itself will always be questionable. The terminology will undergo variation. In any case, much remains to be done to make conscious which forces are operating.

The basically positive function of the ecological crisis is to renew a general concern for what human life is about. What are we here for? To spoil the planet? Why should we do that? Are there any fundamental purposes that make it necessary to endanger the richness and diversity of life? Must we have such a large population of human beings? The so-called shallow or reform ecology movement does not place such questions at the center of our attention. Its adherents do not do that partly because they think the ecological disturbances are few, fairly well known, and capable of elimination by clever management of resources. They also take this approach because they do not combine concern for the Earth with a deeply critical evaluation of the dominant trends in the rich countries. For example, the shallow movement fails to critically evaluate the persistent trend of economic growth and the persistent trend to look at less materially rich countries as "developing" toward the way of life of the rich, as if that would be an unquestionable good. In the deep argumentation pattern, all this is questioned.

Antifascist Character of the Eight Points of the Deep Ecology Movement

The word *fascist* is sometimes used today rather loosely to suggest cruel behavior by a power elite, or a group seemingly intent on establishing such as elite. In what follows I use the word more in the context of fascism as a historical phenomenon. Benito Mussolini was the first to use the term, and his regime was the first fascist regime. However, the national socialism of Adolf Hitler is the best-known fascist ideology.

The central ideological tenets of fascism may be formulated as follows: The strong have always prevailed over the weak and deserve to prevail over the weak. Join the strong! Human destiny and guidelines in the life of the individual are shaped by the state or nation-state, and through racial characteristics. The implementation of policies must be in the hands of the state and is secured through the genius of the leader, who may use ruthless and violent means. The slogan "Freedom, equity, and brotherhood" is unacceptable. There is no brotherhood among races, no equity between leaders and followers. Slogans such as "To believe, to obey, to combat!" are acceptable. In the fight against an opposition, state terror is acceptable.

There are regimes today that deserve to be called fascist and groups with fascist leanings. In many European countries millions still suffer because of the torture, maltreatment, and deprivations they or their nearest experienced under fascist tyrannies, and there is little chance that they will ever completely recover. The adjective *fascist* is therefore rarely used in current political debates except to attack self-proclaimed fascist sympathizers. The reactions were milder in countries that were not directly harmed by fascist forces. There the word is often used very loosely, as a word with

This article was written in 1995. It is being published here for the first time.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

vague but strong negative meanings. In the United States, the expression “environmental fascism” is rarely used, but when it is it naturally awakens the readers’ attention.

It has never been intimated that the deep ecology movement has fascist tendencies in any strict, historical sense of the word. In the broader and wider, popular sense of “fascism,” though, some have warned about possible “fascist” application of the views as they are expressed by deep ecology theorists, and readers ask for clarification.

Fascism values certain collectives higher than the individual (except the Leader): the Nation, the Race, the Party. Although not peculiar to fascism, this view regarding collectives is taken to its extreme by fascists. Some supporters of the deep ecology movement seem to attribute supreme value to an ecosystem, a kind of collective, or to every species. Species are also collectives of sorts, with a vague term, *wholism*, applied to them. Some say that they feel “like a leaf on the tree of life.” This borders on forms of nature mysticism. Philosophers have described the “oceanic feeling,” the feeling of being a drop in a vast ocean. The drop vanishes completely as an independent entity; however, there is no struggle between the drops, no races, no enemies. The image “oceanic feeling” has a very long history but has scarcely ever been used in military pep talks. The fascist collectives do not have much in common with the ocean. Moreover, many supporters of the deep ecology movement only emphasize close interrelationships, not wholism.

Clarification may start with inspecting general formulations that many supporters find acceptable, for example, the Eight Points.

The Eight Points of the deep ecology movement as formulated in Devall and Sessions (1985: 71) are, of course, open to slightly different interpretations. Point 1 makes use of the expression “life-forms.” Some supporters feel strongly, as I do, that intrinsic (or inherent) value attaches to all individual living beings. (It is for me a question of intuition and feeling as much as a question of logic.) The formulation of point 1 that suits me best would, therefore, start with “Every living being . . .” or “All living beings. . . .” It cannot, however, be interpreted as synonymous with “All living beings and *only* individual living beings. . . .” Therefore, it leaves open the question of whether species of other collectives have, or can have, intrinsic value. Actually, many supporters attach intrinsic value to species.

The expression “every life-form” may be interpreted as synonymous with “every individual living being and every species.” What is, or should be, excluded is an interpretation of “every life-form” as synonymous with “every *species* (not every individual living being).”

Representatives of the *science* of ecology have often remarked that supporters of the deep ecology movement underestimate species. Without a species of blue whales, there are no individual blue whales. The threat of extinction of the species is overwhelmingly more important than the threat that a definite individual blue whale faces. Nevertheless, the question of relative importance is not the same as the question of intrinsic value.

The remote possibility of dictatorship in favor of the human species, or of every species, but negation of the intrinsic value of individuals is clearly unacceptable.

When fascist thinkers touch upon the driving forces in evolution, there is a tendency to focus on brutality and cut-throat competition and, of course, an emphasis on the evolutionary value of the stronger eradicating the weaker. Among deep ecology people, the point of view of Peter Kropotkin (1955)—“mutual aid” as an advantage in evolutionary potential—is taken seriously, and so is the general view of Stephan Lackner in his encouraging book *Peaceable Nature* (1984): “Violence causes only 5 percent of death.” This is perhaps too rosy a view, but it deserves close study.

According to point 1, there is a value that is the same for every human being, namely intrinsic value. This is squarely an *antifascist* position. It is incompatible with fascist racism and fascist nationalism, and also with the special ethical status accorded the (supreme) Leader.

How does Green political theory relate to theories of (ethical) *justice*? One may say that they assume or at least presume a conception of justice as fairness, but, of course, they do not find themselves bound to adopt a notion of fairness such as that elaborated by John Rawls (1971) in his careful and influential work on justice. It is, for example, natural within the deep ecology movement to attribute meaning to norms about fairness toward animals. Laboratory mammals are often treated unfairly—the intelligent, “the bright” treated better than the less intelligent, “the dull” ones; the beautiful better than the ugly—and what about distribution of “primary goods”? It is accepted that monkeys may be *made use of* by scientists in ways completely unacceptable if applied to human beings. Yet, those who daily take

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

care of a group of monkeys in a laboratory are expected to distribute available primary and other goods fairly: fair distribution of food and time in playing with them. From point 1, no list of special human rights can be inferred. The points are, it might be useful to repeat, primarily concerned with the specific character of the deep ecology movement *within* the context of the general ecology movement. The acceptance or nonacceptance of a definite list of human rights obviously not accorded to nonhuman beings is *a question of ecosophy*, the total view of a supporter of the deep ecology movement. Theoretically, it is compatible with the Eight Points to be, like Gandhi, skeptical about special human rights. According to Gandhi, human beings have *obligations*, not rights. When he explained what he meant in practice, though, it turned out that we have obligations to behave toward human beings *in accordance with* the doctrines of human (special) rights.

In ecosophical literature there is no sign that supporters of the deep ecology movement reject the list of human rights. On the whole, those writers have not expected that there would be any question of whether they would or would not.

It has been suggested that radical environmentalism, if it gained supreme political power, would perhaps make human interests and human rights subordinate to the well-being of ecosystems. In the 1960s and even in the 1970s, some supporters of deep ecology had a near cultish respect for "mature ecosystems," but since the 1980s the reification of ecosystems has lost scientific ecological credibility. There is recognition of a much higher degree of "chaos," more instability, more complexity in changes. For me to regulate my decisions according to a maxim that a good decision is a decision that is beneficial to the special ecosystem in which I make the decision, is strange and ethically objectionable. A party that tries to develop a cult of ecosystems, or that tries to identify ethics with environmental ethics, cannot be expected to win elections or gain through revolution. Of the hundreds of cares people have, none seems to be connected with the rather abstract doctrine of life and death of ecosystems. They may learn about vast and important relationships. If they depend on fish from the Barents Sea, they learn that the population of fish they buy depends upon the population of other species and upon the policies adopted, that is, upon the necessary restrictions and solutions of international conflicts related to them: ecosystemic knowledge. They may support ecologically responsible

policies, but they may not believe in the intrinsic value of the system. Ecosophies are total views in part inspired by the crisis, but even if people accept an ecosophy, the part played by ecological consideration will be very small. I don't think we should wish it to be otherwise.

By attributing intrinsic value to nonhuman beings, deep ecology supporters may be said to accept a widened Kantian maxim: no living being should be treated *merely* as a means. The wideness of the application of the predicate *living* is, of course, open to different proposals. It is, for example, not necessary to include the HIV virus.

Applying point 1 to human beings, I derive, as already mentioned, the formulation "Every single human being has intrinsic (inherent) value (worth)." I hesitate, though, to derive "Every single human being is worthy of *respect*." I hesitate because, for example, I would not say I *respect* a torturer. It is meaningful for me to say that I can do something for a torturer, something for his own sake. As a matter of course I offered a torturer tea when he was being interrogated. After a long interrogation, he asked whether I could help him get shot immediately instead of being kept in solitary confinement for a long time. I did not have the power to make the authorities shoot him immediately as he requested, but perhaps I would have asked them had I had the power. A human being should be treated according to certain standards even if he has been a torturer. There are strict rules as to how to behave toward a prisoner, whatever his crime. He remains a fellow human being. *Special obligations* are due to one's fellow human beings.

When people accused of torture were imprisoned in 1945, they were visited by people from the Resistance and especially by Christian priests. These visits did not indicate any softness in regard to the dreadful character of the prisoners' *deeds*. Sometimes the terrible character of what they had done made the visitors look upon them as the most *miserable* beings on Earth. People may be classed in regard to valuableness for the community or for innumerable other purposes. Point 1 does not concern instrumental value, nor the question of whether there are different sorts of inherent value. What about gradation, though?

Point 1 does not *imply* any notion of quantification or gradation of intrinsic value. It does not imply *equity* as opposed to "more or less." Nor does it *imply* the absence of gradation.

Some supporters introduce gradation: human beings have more or

higher intrinsic value than other living beings. Mammals have higher intrinsic value than insects. It is difficult to avoid rather complex systems of gradation. The more they are intellectually elaborated, the farther they recede from the more or less intuitive basis that I have for attributing the same value, the intrinsic value, to every living being.

Instead of grading intrinsic value, some of us grade obligations—abysmal differences of obligations! In the case of obligations as well, a *complex* system of strong and weak obligations lacks a clear intuitive basis. One cannot expect intercultural consensus. As I see it (that is, according to Ecosophy T), human beings have more and very much stricter (ethical) obligations toward human beings than toward nonhuman beings. Parents have more and stricter obligations toward their own children than toward other people's children. Geography and access come in as well: nearness and ease of reach are factors. The intrinsic value of children is one and the same. That children die of hunger is unacceptable, whatever the geographical distance. In other words, there is an ethical obligation to support measures to eliminate the phenomenon. The same applies to the systematic torture perpetuated in many countries.

From the fact that supporters of the deep ecology movement are supposed to be motivated (in part) by their philosophical or religious beliefs, it does not follow that their decisions are *determined* by the Eight Points. The decisions should be consonant with their *ecosophy*, their total view, something immensely broader than the Eight Points, although it may include the Eight Points. At North-South conferences it sometimes happens that people from the Third World imagine that the Eight Points are meant to give an adequate basis for their decisions. Rightly, they object that ecological problems cannot and should not have the highest priority in their countries. If being a supporter of the deep ecology movement implies having such a preposterous view, nobody in the Third World could possibly be a supporter—nor should anybody anywhere interpret the Eight Points that way. They focus on some differences between the outlook of a certain group of *activists* within the general ecological movement and the rest—and the Eight Points concern matters relevant to overcoming the ecological *crisis* largely caused by the rich nations, which have the duty to clean up. So much about point 1, and the relation between the Eight Points and their antifascist, pro-Third World character.

In any movement that promotes serious changes affecting all aspects of society, one should be on the outlook for supporters who might ask for dictatorial or authoritarian measures. None of the theorists of deep ecology show any such tendencies. Moreover, nobody who strives to be a dictator is likely to profit from letting every human being be treated as having the same inherent value. Nevertheless, many supporters warn us: the longer we wait before responsible ecological policies are adopted, the more likely there may develop catastrophes that prepare the ground for undemocratic measures.

Point 2 announces the intrinsic value of richness and diversity of life-forms. In the formulation of this point in Devall and Sessions (1985), the diversity of human cultures is not mentioned. More recent versions announce that such diversity should be included under the heading “diversity of life-forms” and thereby accorded intrinsic value. That is, the addition should not necessarily be included in the formulation of point 2 but in the “first-order comments.”

By first-order comments I mean precizations: specifications and elaborations that are clearly needed to ensure that the “point of departure” eight-point formulations are interpreted as intended. Such comments ought not, I think, to comprise more than about four hundred words, double the number of words in the Eight Points. The second-order comments may use twice as many words again, that is, eight hundred words. I mention this to emphasize that if we assume that the eight-point formulations are read by people with greatly different backgrounds and emotional attitudes toward questions raised by the deep ecology movement, one must expect to talk at length to convey the intended meaning of the formulations. Moreover, this discussion may give, and has given, good suggestions for how to improve the formulation of the Eight Points, or how to work with completely different sets of formulations.

Intrinsic value has an important limitation: some cultures have as a basic feature an intolerance toward others. This intolerance and discrimination is characteristic of fascist ideology. The democratic political culture has regularly been the object of hateful and derisive criticism.

One fairly obvious and easily made change in the formulations is the following. In point 8 these words may be added: “by peaceful and democratic means.” Some have objected to the use of the term *democratic* because

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

of the obvious imperfections of contemporary democracies. I think, though, that the term can be saved from being completely identified in meaning with contemporary democracies. Point 8 then might read: "Those who subscribe to the foregoing points have an obligation directly or indirectly to try to contribute to the implementation of the necessary changes by peaceful and nonviolent means."

In regard to nonviolence, as contrasted with the fascist masculine pugnacity, supporters of the deep ecology movement are criticized because they do not answer strong attacks. They are often called meek and pacifist. Thus, when Murray Bookchin (1980) started somewhat wild and immoderate attacks on deep ecology, there were no corresponding counterattacks. The attacks did not elicit polemics *between* the two camps, the social ecologists and the supporters of the deep ecology movement. On the whole, the latter only continued to *explain* what they stood for. Even in the published debate between Bookchin and the "wildly radical" supporter of the deep ecology movement Dave Foreman (Bookchin, Foreman, and Chase 1991), there is a characteristic mildness in the latter's formulations. "The best defense is the attack" is not always good advice. One should, of course, attack, using Gandhian rules of verbal communication; that is, one should carefully formulate counterarguments against the views of the attacker, not only defend one's own. As regards the relation of the two movements, the social ecology and the deep ecology, it is obvious that one may support both. The latter is broader, more diffuse, *some* will say.

Some critics do not believe in the danger of fascist tendencies in the deep ecology movement. They do not see any possibility that *authoritarian* policies could be established if the supporters became powerful—for example, that the supporters of the shallow or reform movement might be suppressed, even put in prison. Even today, the peaceful collaboration of the two parts of the general movement is a necessity. Most of the many hundreds of professionals involved in the questions relating to climatic changes are, as far as I know, fairly uninterested in ultimate premises. The supporters have no chance to "take over" the climate studies, either now or in a future when (hopefully), thanks to all activists in the *general* ecology movement, the ecological crisis has been overcome.

The 1980s and early 1990s saw a series of valuable contributions to so-called *Green* political theory as something different from mere *green* politi-

cal theory.¹ A few examples are Hazel Henderson's *Politics of the Solar Age* (1981), Fritjof Capra and Charlene Spretnak's *Green Politics* (1984), Jonathan Porritt's *Seeing Green: The Politics of Ecology Explained* (1984), John Dryzek's *Rational Ecology: Environment and Political Ecology* (1987), Robert C. Pauhke's *Environmentalism and the Future of Progressive Politics* (1989), Andrew Dobson's *Green Political Thought* (1990), Robyn Eckersley's *Environmentalism and Political Theory: Toward an Ecocentric Approach* (1992), and Robert Goodin's *Green Political Theory* (1992). Do these authors display fascist tendencies? No. Threats against the vital rights of human beings? No.

I agree with those who think that there is too much talk about the Eight Points. It is a sign of imperfect clarity about what deep ecology is all about. The situation makes it necessary to repeat over and over again some points that unite the great diversity of people who *feel* that they strongly agree with lots of the things that are said and done with reference to "deep ecology." To bring the Eight Points into the discussion may be helpful and convenient, but, of course, they do not furnish an adequate picture of the movement.

Deepness of Questions and the Deep Ecology Movement

Historical Perspective

Whatever the weaknesses we are all aware of, the term *deep* is going to remain central in the terminological structure of the deep ecology movement.¹ Is the deep ecology terminological structure complicated? It is nothing compared to what we have to get accustomed to if we participate in social and political debates. Here, I focus on only one approach in trying to make the term *deep* more precise in the relevant sense (thus eliminating interpretations that lead away from what is intended). The approach taken here is concerned with premise-conclusion chains.² This approach is concerned with the *deepness of premises* used in debates over efforts to overcome the ecological crisis.

There are other approaches—for example, the “deepness and broadness of attitude” approach. Let us say that the owner of a rock garden may treasure every life-form in the garden for its own sake, but this attitude is limited only to the garden. The attitude is not deep enough for this person to generalize it beyond the confines of the garden. Further, the shortcomings of society may be seen and felt by this person, and result in unrest and frustration, but the attitude is not intense enough to make the owner of the garden “problematize” all aspects of society. Whereas the premise-conclusion approach, if carried out systematically, requires some educa-

This article was reprinted with permission from *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions (Boston: Shambhala Publications, Inc., 1995), 204–12.

tion (but not knowledge) in logic, the “deepness of attitude” approach leads to social psychology and social science in general. However, only a small group of a movement’s theorists can afford to spend much time on systematization.

Conservatism may be said to be the social movement that tries to conserve what is best in what already exists. Such short expressions of what a social movement “is” may have some value in some contexts, but generally a social movement requires fairly complex characterizations. Attempts to shorten them into one sentence, which is then treated as a so-called definition or criterion, are rarely successful—or the sentence gets to be too long and complicated. Definition may have a place in dictionaries, but rarely elsewhere.

In my paper “The deep ecology movement: Some philosophical aspects” (1986; see chapter 5 in this volume), the contrast between the deep and the shallow ecological movements is characterized in about two hundred words. One difference is said to be decisive: it “concerns a willingness to question and to appreciate the importance of questioning every economic and political policy in public.” The questioning is “deep” and “public.” Because I used the word *questioning*, not the Germanic *problematizing*, the misinterpretation arose that I found intellectual playful questioning of the kind encountered in graduate philosophy seminars sufficient. On the other hand, problematizing is a profound “existential” undertaking.

When one compares the two movements, however, the relatively deeper questioning in the sense of “problematizing” (*Problematizierung*) of the deep ecology movement is quite manifest. It is my *hypothesis* that any systematic contemporary philosophy will, if it takes a stand on the ecological crisis, support the deep ecology movement. Supporters of the deep ecology movement, therefore, have no systematic philosophy to oppose. The modern ecological predicament is the result of thoughtlessness rather than thought. In one sense we may say: if there is deep questioning, then this is compatible with Ecosophy T, or some other ecosophy articulating the perspectives of the deep ecology movement. “Deepness,” however, must include not just systematic philosophical deepness, but also the “deepness” of proposed social changes.

Persistent “Whys” and “Hows”

Let us inspect the chain of questions in the following dialogue:

1. A: Turn on the gas!
2. B: Why?
3. A: Because we are going to boil the potatoes.
4. B: Why?
5. A: Because we ought to have dinner soon.
6. B: Why?
7. A: Because we should keep fit.
8. B: Why?
9. A: Because we should do what makes us feel happy.
10. B: Why?
11. A: Because happiness is what we ultimately desire.
12. B: Why?
13. A: “Happiness” means satisfaction of all biological and social needs.
14. B: Why?

At step 13 the pure why-chain turns from normative to descriptive. This may lead us into discussing the etymology of the term *happiness* and other unphilosophical specialties. The “whys” at 10 and 12 are within the traditions of philosophy and more profound, I would say, than at 8 or even at 14. Furthermore I would say, perhaps arbitrarily, that the “why” at 8 is more profound, or leads (or may more easily lead) into deeper water, than the “why” at 6. It is convenient to use two words here, *deep* and *profound*, letting *deep* refer to the premise-conclusion relations and letting *profound* refer to nearness to philosophical and religious matters. The latter term I leave unanalyzed.

At the start of introductory philosophy courses, my habit of persis-

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

tently asking why, whatever the answers to my questions (for example, “What time is it?”), makes the students bemused, bewildered, frustrated, or angry in a remarkably fruitful way for the whole course. In less than ten minutes, they are ready for anything.

Among other things, they realize that deep questions seem to be only “millimeters” away from the trivial, conventional, or silly. Some become unhappily bewildered because they feel that I am making fun of them, or that their sanity is being tested.

The unhappily bewildered remind me of the research on “tolerance of ambiguity” in the 1930s and 1940s motivated by the astonishing popularity of fascist and National Socialist ideas. One working hypothesis held that intolerance for the ambiguity of a situation correlated highly with indicators of acceptance of fascist ideas: that there should always be rules for correctness. The only test for saneness is correctness: to be *comme il faut*. Certain questions could (should) be asked, others could not. Idle wondering is dangerous, therefore “keep straight at any cost.” The fuhrer establishes the rules, thereby avoiding *embarrassing* bewilderment.

Suppose the above dialogue, at an early stage, went descriptive, and explanatory:

1. A: Turn on the gas!
2. B: Why?
- 3b. A: Because if you do not turn on the gas the water will not boil.
- 4b. B: Why?
- 5b. A: Because cold water needs heat from the gas in order to reach boiling temperature.
- 6b. B: Why?
- 7b. A: Boiling requires that water molecules attain higher velocities and these must be transferred from the hot flame of the gas.
- 8b. B: Why?
- 9b. A: Because, ultimately, quantum mechanical and thermodynamical laws prescribe certain conditions to be fulfilled.

10b. B: Why?

11b. A: We have no good reason to think that heating might be done otherwise than in conformity with physical and chemical laws or theories accepted today.

12b. B: Why?

Again, we have landed in philosophy. Why-strings in science inevitably lead us beyond science. Sequences of “how?” show similar traits. Sooner or later we arrive at fields of inquiry typical of philosophy.

1. A: Turn on the gas!

2c. B: How?

3c. A: Put your fingers here and turn to the left.

4c. B: How?

5c. A: Activate certain muscles of your underarm . . . !

6c. B: How?

7c. A: By deciding to do so.

8c. B: How?

9c. A: Pull yourself together!

10c. B: How?

11c. A: Use your free will!

It seems that we can lead a dialogue out of philosophy even when continuing our whys and hows, but not without certain kinds of diversionary steps or sidetracking maneuvers:

12c. B: How?

13c. A: By a careful study of the philosophy of personal development.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

It might be possible to keep the dialogue within the borders of techniques of study a couple of steps farther, but roughly the conclusion holds that persistent questioning leads to deeper questions.

The importance of this conclusion is limited because whereas question number n may lead deeper, question $n+1$ may lead back to trivialities as exemplified by 12c. We must consider, too, which concepts of “depth” are intended? “Deep mathematical theorems” are one thing; “deep grammatical structure” is something else. Is philosophy invariably deep? Deep waters can be distinguished from murky ones, but how are deep questions and answers distinguished from murky ones? Let us say the dialogue takes this turn:

x . There is something rather than nothing.

$x+1$. Why?

$x+2$

Some of us will characterize the Heideggerian literature at step $x+2$ as murky rather than deep, or at least as both murky and deep.

In a critical situation, a complex proposal A (concerning how to act) may be said to be based on a set of premises, some of them explicitly formulated in A , the others playing the role of unarticulated “presuppositions” (Collingwood 1948). Suppose a proposal B is based upon the same set of premises except one, an unarticulated presupposition P . B questions (problematizes) P , does not find it tenable, and rejects proposal A . In this critical situation, B may be said to *question more deeply* than A , and the deeper question may be said to be “Why P ?”

The above is meant just to touch upon the difficult questions we face when trying to formulate fairly simple (but useful) analyses (precizations) of “deep questions,” “deeper questioning,” and similar expressions.

These questions do not, in my view, undermine the usefulness and appropriateness of the designation “deep ecology movement,” but they do justify the remarks made by Warwick Fox, David Rothenberg, and others, that what deep ecology theorists write is often sketchy, tentative, and preliminary (using my words rather than theirs). Theoreticians for the peace movement, and especially the Marxist-inspired social justice movements, have produced much heavier thought together with highly elaborated doc-

trines. Unfortunately, the widening of the ecological crisis seems to give us more than enough time to gain in profoundness.

Comparing argumentation patterns within the shallow and deep movements, I find that although supporters of the deep ecological movement (as characterized in certain texts) ask deeper questions, they are rarely zetetics—questioning everything. On the contrary, like Rachel Carson, they tend to have firm convictions at a deep level. This is also true of people in the other two great movements—the peace and social justice movements.

Inspecting my examples of why- and how-strings, some might wonder: are they not also suited for introducing concepts of “*p* being sillier than *q*”? This question reminds us of the concept of *relevance*. When questions of what to do (or not to do) in a given situation are relevant, why- and how-strings sooner or later become irrelevant. They get sillier from the point of view of action. For example, if we start a string of questions and answers concerning why and how we eat, eating becomes more and more relevant as the hours pass. Action (in this case, eating) cuts the Gordian knot but leaves all questions open, and leaves all answers invoked to account for decision and action questionable.

For example, the main reaction of the U.S. Department of Agriculture and the chemical industry to Rachel Carson’s accusations in *Silent Spring* (1962) was “Wildly exaggerated!” If this factual and normative premise is accepted, then the questions raised by her are clearly irrelevant, and some of them are even silly. From 1963 to 1989 there have been vast differences of opinion concerning the gravity of the ecological situation. One may roughly distinguish an extreme optimism, a moderate optimism, a moderate pessimism, and a black pessimism (the “doomsday prophets”). The supporters of the deep ecology movement consider the ecological crisis to be grave, and this may be seen by some as pessimism. Tremendous efforts will be necessary, and the transition to wide ecological sustainability will be painful for most people. The supporters of the shallow movement tend toward optimism. Some do not even acknowledge that there is anything like a crisis but support vigorous action to investigate the ozone layer situation, to restore forests with genetically altered trees that grow faster and are more resistant to pollutants, and other kinds of repair jobs. Some of these efforts are admirable and indispensable today from the deep ecology standpoint.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

The tendency to refrain from discussion of deep questions in the shallow movement has, as its main cause, the perceived irrelevance of such discussion: why bother? The supporters of the shallow movement believe that responsible ecological policies will be implemented in due course because of the clearly manageable magnitude of the implied problems.

When the use of pesticides was increasing by a very large percentage each year, only a few people were alarmed, and they soon found that strong forces were allied against the use of restraint. Even when the short-range undesirable consequences of pesticide use became clear, nothing decisive was done to change the situation.

Few people persistently asked why or how. Those who did, however, were deeply concerned about the ecological consequences. The answers to these questions relate not only to chemistry and biology; they involve increasingly more and more spheres of human affairs—economic, technological, social, cultural—and ultimately, philosophical and religious levels. That is, those who went deeper both *questioned more deeply* (in the sense of deeper premises) and *suggested deeper changes socially* (in a wide sense).

The percentage increase of the sheer volume of impact, and the increase of pernicious impact (of special chemicals, especially on vulnerable regional changes), could not, and cannot, be precisely measured. There is always room for differences in degrees of optimism and pessimism. The effects of DDT were uncertain; the causes and effects of acid rain are still uncertain; climatic changes (ice age or warming of the planet, or both, or none?) are uncertain. Some point out that population growth correlates with the growth of wealth if proper technology is available—look at the history of Holland! With high income and education, population stabilizes. The implication is that there is no cause for alarm.

With moderate degrees of optimism the why- and how-strings need not be long. Science and technology seem to furnish answers; also they do not touch fundamental social conditions, nor fundamental attitudes and value priorities.

The difference between the deep and the shallow ecological movements may be looked at from a special point of view, namely, what is questioned and how deep the questioning goes, although *defining* the movements in terms of deepness of questioning is misleading. The English term *questioning* is not as forceful as the Germanic and French equivalents: *prob-*

lematizieren, *Problematizierung*, *problematique*, etc. In European philosophy and politics during the late 1960s, these terms were important—the whole industrial society was questioned: *problematiziert*. The movement to protect nature was *politiziert* in the sense that it had to face the economic and political forces that mobilized against major protection efforts. Without political changes there would be no shift to ecologically sane policies. In the United States, terms like *vested interests* and *hidden persuaders* were used but did not gain much influence in questions of environmentalism. The profound *Problematizierung* of the sociologist C. Wright Mills (1967) came too early.

Looking at the relevant literature and public debates, my conclusion is (and has long been) that what characterizes the deep movement (in relation to the shallow) is not so much the *answers* that are given to “deep questions” but rather *that* “deep questions” are raised and taken seriously. Argumentation patterns within the shallow movement rarely touch the deeper questions: we do not find the complete social and philosophical *Problematizierung*. However, if supporters of the shallow movement are invited to answer the deeper questions, it is my experience that they often accept the points of view of the deep ecology movement. (A pilot study³ in which influential people were invited to answer these kinds of questions confirms my impressions. More studies of this kind would be highly desirable.)

From this I conclude that the view is untenable that one is confronted, in the ecological crisis, with politicians and other influential people who invariably hold a different philosophy of life and a different view about humanity’s place in the cosmic scheme, and who deliberately work against the realization of a green society (which implies respect for the richness and diversity of life on Earth). They often say, “Yes, sure. Every living being has intrinsic value, but what is your politically realistic proposal for solving the unemployment problem? Some forests may have to go.”

The last few years have seen a lively interest among religious leaders in denouncing the arrogance toward, and ruthless exploitation of, the planet. Christian leaders proclaim the intrinsic value of all beings because they are the creation of God, and speak about human sinful behavior toward God’s creation. There is a central point, however, that this “new green wave” on the philosophical and religious level has not taken sufficiently seriously: *the necessity of a substantial change in economic, social, and ideological structures*. If

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

the first five points of the deep ecology platform are accepted, such changes are seen as necessary by most supporters of the deep ecology movement (cf. especially point 6).

Should we now say, then, that deeper questioning is no longer what fundamentally makes deep ecology argumentation patterns different from those of the shallow movement? The term *fundamentally* is too strong. I think *most clearly* is better.

I introduced the concept of pure why-strings to illustrate the simple concept of “deeper question,” which was adapted to one of the many usages of the term *deep*. There is, however, another usage relevant to the choice of the designation “deep ecology movement”: that of *deepness of change*. Whereas the shallow movement suggests increases in environmental budgets, forcing polluters to pay for their pollution, and many other changes in social policies, these proposed changes are not “deep.” Green political party programs usually imply changes on the same deep level as those implied by the deep ecology movement.

As an example, let us consider the philosophical norm of universalizability as applied to ecological policies. Because all major ecological problems are global as well as local, one society degrading the Earth to a much greater extent per capita than other societies cannot be tolerated as long as the global volume of interference is clearly excessive. Norms of justice derivable from the Eight Points may convince people that ethically justifiable levels of interference in ecosystems require much deeper social changes than are now widely anticipated. Societies must adopt policies that can be universalized without reducing the richness and diversity of life on Earth.

It is of considerable importance that the deep ecology movement has so far faced no serious philosophically based criticism. Sooner or later that will occur, but of course it has to be legitimate criticism, not a caricature of the movement.

Jeremy Bentham was both a philosopher and a social reformer who was not afraid to derive very special particular norms from general principles; for example, which color would be best for ballot boxes. For every British custom and legal procedure he asked “Why so?” If a procedure did not satisfy his pleasure principle, it was to be abandoned. That is, he questioned (problematized) every procedure in the light of his total view, his special form of utilitarianism. Even if his way of doing this (through his “special”

why-strings) was fictitious to some degree (like the *q.e.d.*'s of Spinoza's "proofs"), his reform movement was highly successful.

The ecological crisis requires an analogous scrutiny of "everything" in the light of broad, global long-range ecological sustainability. Here, why- and how-strings must mercilessly confront procedures with basic principles on the philosophical and religious levels.

Equality, Sameness, and Rights

My intuition is that the right to live is one and the same for all individuals, whatever the species, but the vital interests of our nearest nevertheless have priority. The rules that operate when interests conflict include two important factors: vitalness and nearness. The greater vital interest has priority over the less vital, and the nearer has priority over the more remote—in space, time, culture, and species. Nearness derives its priority from our special responsibilities, obligations, and insights as human beings among human beings.

The terms used in these rules are of course vague and ambiguous, but even so, the rules point toward ways of thinking and acting that do not leave us helpless in the many inevitable conflicts between norms. The vast increase of negative consequences for life in general, brought about by industrialization and the population explosion, necessitates new guidelines.

For example, the use of threatened species for food or fur clothing may be more or less vital for certain poor families in nonindustrial human communities. Among people who are not poor, however, such use is clearly ecologically irresponsible. Given the fabulous possibilities open to the richest industrial nations, it is their responsibility to cooperate with poor communities such that undue exploitation of threatened species, populations, and ecosystems can be avoided.

It may be of vital interest to a family of poisonous snakes to remain

This article was reprinted with permission from *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions (Boston: Shambhala Publications, Inc., 1995), 222–24.

where they have lived for hundreds of generations but where small children now play, but it is also of vital interest to the children and their parents that there be no accidents. The priority rule of nearness (and a sense of responsibility) makes it justifiable for the parents to relocate the snakes. However, the priority of the vital interests of the snakes is important in deciding where to establish the playgrounds in the first place.

A personal testimony: I have injured thousands of individuals of the tiny arctic plant *Salix herbacea* during ten years of living in the high mountains of Norway, and I shall feel forced to continue stepping on them as long as I live there. However, I have never felt the need to justify such behavior by thinking that they have less right to live and blossom (or that they have less intrinsic value as living beings) than other living beings, including myself. It is simply not possible to live and move around in certain mountain areas without stepping on myriads of these plants, and I maintain that it *is* justifiable to live in these mountain areas. When I behave as I do, I can (at the same time) admire these plants and acknowledge their “equal” right to live and blossom with my right to do so: not less and not more. It is therefore a better formulation to say that living beings have a right (or intrinsic or inherent value, or value in themselves) to live and blossom that is the *same* for all. If we speak of differences in rights or value, we do not speak of the rights or value I have in mind. It is not meaningful to speak of *degrees* of intrinsic or inherent value when speaking of the right of individuals to live and blossom.

What I have done here is try to verbalize an intuition, although any such verbalization may be misleading, and this one has certainly often misled others. There are other intuitions and thousands of slight differences in attitude reflecting different valuations of various sorts. For example, if there is a choice of whether to step on a *Salix herbacea* or on the rarer, more overwhelmingly beautiful *Gentiana nivalis*, I unhesitatingly and deliberately step on the former.

The abstract and somewhat grandiose term *biospherical egalitarianism in principle* and certain similar terms that I have sometimes used perhaps do more harm than good. They may be taken by some to suggest a major *doctrine* of sorts, but that goes way beyond my intentions. As I see it, the importance of the intuition I speak of resides in its capacity to counteract, perhaps only momentarily, the self-congratulatory and lordly attitude to-

ward those beings that may seem, to some people, to be less developed, less complex, less beautiful, or less miraculous.

When I characterize this as an intuition, I do not imply the absence or lack of a rational basis for it, but rather that there are other factors operating here. For example, the increase in demand for rigor in mathematical proofs eliminated certain intuitions. But intuitions still operate, as when mathematicians choose axioms and other fundamentals.

A rich variety of acceptable motives exist for being more reluctant to injure or kill a living being of kind *A* rather than kind *B*. The cultural setting is different for each being in each culture, and there are few general norms—only vague general guidelines. The more narrow and specific the questions posed, the less vagueness there will be. For example, I have proposed norms relating to communities of bears, wolves, sheep, and sheep owners in Norway.¹

Another relevant factor is the *felt nearness* of different living beings. This factor largely determines our capacity to identify strongly with certain kinds of living beings, and to suffer when they suffer. One cannot put forth ethical rules of conduct without taking our limited capacities, and such personal feelings, seriously. If it is difficult to avoid killing *A*, for example, because of its smallness, whereas killing *B* is easily avoided, then we tend to protect *B* rather than *A*. Moreover, there is an obvious diversity of obligations. We have special obligations toward our own children: any animal may be killed in order to feed one's starving child. Obligations toward individuals that have been members of our communities for long periods of time are greater than toward accidental visitors. Furthermore, there is, of course, the relevance of suffering: Is the suffering of *A* less than that of *B*? Does *A* have the capacity to suffer?

The rather simple thing I am trying to convey here is that an ethic that attempts to deal with the *differences* between nonhuman living beings is on a comparable level of complexity with an ethic that concerns itself with our behavior toward the people and groups with which we interact.

Related to the above, I prefer the term *living being* to the term *organism*. The intuitive concept of "life" (or "living being") sometimes includes a river, a landscape, a wilderness, a mountain, and an arctic "waste." The intuition has a little, but not much, to do with biology or neurophysiology. Intrinsic value, as posited by the intuition, is influenced, but not decisively,

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

by “biological news”: for example, news about the whale’s nervous system complexity being comparable to that of human beings.

The kind of intuition I have been speaking about I take to be rather common among supporters of the deep ecology movement. It is not easy to verify this in detail, however, because of terminological and conceptual differences. The broad stream of nature poetry, over thousands of years, is perhaps the best source of confirmation of the widespread intuitive appreciation of the *same* right of all beings to live and blossom.

Nature Ebbing Out

Some people grasp a great new thought quickly and completely, but most of us take somewhat longer. I am one of those who has finally understood that ours is perhaps the last century in a very important respect. The spectacular, free, beautiful, and “dangerous” nature is about to disappear. Our children will live in a domesticated world in which everywhere they go, they will see human faces instead of the overwhelming face of nature. Even the giants of the Himalayas are being tamed. Helicopters buzz along the flanks of Daulagiri; soon technology will enable them to buzz around the highest summits.

The problems of protecting the environment are beginning to be taken up in Norway. Here, though, people’s attitude regarding natural resources seems to be that we still have more than enough. Those who support the exploitation of “our” resources probably think as Little Hans did when his mother warned him that if everybody stole, society would crumble and fall apart, and Little Hans said, “You are right, Mother, but society can very well endure that *I* steal!”

For those who watch the development in Norway with concern, it is a consolation to see how far environmentalists have come in the United States, where resistance has been stronger. Despite this resistance, they have managed to achieve more than anywhere else in the world, particularly in the domain of protecting national treasures. When it was rumored that the Grand Canyon would be declared a national park, a certain Mr. Cameron hastened to put “claims” (i.e., mineral excavation rights) on

This article, a plea to protect Innerdalen, a mountainous area on the west coast of Norway, was written in 1965 and translated from the Norwegian (“Natur ebber ut”) by Kit-Fai Naess. It is being published here for the first time.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

places where one could get down into the canyon. His intention was to exact a toll from tourists, not extract minerals. This piece of private enterprise came to be looked upon as very smart. As it turned out, it was difficult and costly to get Mr. Cameron out of the Grand Canyon, although the authorities at last succeeded. Then, in 1920 when Cameron was elected to the Senate to represent Arizona, he avenged himself by making the grants for environmental protection extremely low. Even now it is considered good sport in some circles to buy up real estate in a rush and repair the buildings therein when it is rumored that the region is to receive "protected" status. It is assumed that the government will purchase the property at exorbitant prices.

Private enterprise is no longer the only obstacle. Environmentalists must now have expertise in law and social research. Until recently there were between forty and fifty governmental institutions in California alone that had in their power the ability to change the face of the country—and their activities were uncoordinated. Those who want to protect something must have an overall view of what is happening everywhere in order to forestall actions detrimental to the environment. The mighty Department of Transportation in the United States has control over a land area bigger than the whole of Norway, and to avoid too-broad, too-flat roads in protected mountain areas, one has to seek the personal blessing of the President.

The tangle of modern bureaucracy can be charted, but in recent years a major difficulty has arisen: every unused waterfall or log must be transformed into something that can be measured quantitatively. Its value must be registered in a computer, or else this magnificence of nature, this grandeur, cannot appear in tables and charts showing the country's riches and resources. Well-meaning economists have carried out this miracle of measurement for us. The music of Schubert and Beethoven is still played, hundreds of years after their death. With the proceeds from the performances of these composers' songs and symphonies through the years, we can calculate the use-value of certain phenomena, be they pieces of music or national parks. From this, the road to measuring the total value of nature areas is short. It is enlightening that the figures one comes up with are very satisfactory, convincing enough for the many who want "facts," not just romantic or impractical talk. We must not forget that people's usual concepts about resources, energy, and richness cover exactly the things that only

have value as means, things that *are not good in themselves*. What is and has always been perfectly good for itself, that which *cannot* be divided and quantified in dollar values, will be excluded from the calculation.

These are just a few words about the difficulties that, in many respects, have been overcome. We all have heard about America's wonderful Yellowstone National Park, Yosemite, and so on, but not everyone is aware that there are more than eighty wilderness areas of differing "degree of purity" where, for example, there are no buildings or roads. For Norway the fight for such areas ought not to have such a high priority yet, but the thought itself is of great importance. Wilderness areas give expression to the value of nature as something *totally* untamed.

When I think about how difficulties are overcome in other places, and how high our own Innerdalen ranks on whatever scale one chooses—beauty, easy access, or magnificence—I hope that its preservation will soon be a reality. If I were asked to name a characteristic of Innerdalen that surpasses all other characteristics, I would say it this way: maximum beauty or splendor *per cubic meter*. The landscape changes exceptionally fast when one moves in its terrain, and the distance from one wonder to the next is very small!

The Apron Diagram

Overview

I see the deep ecology movement and its supporters as part of a total view that comprises many levels and many ultimate philosophies and diverse practices in close contact with one another. To illustrate this I use an “apron diagram” (figure 2), which illustrates logical, as distinct from genetic, relations between views. By *logical relations*, I mean verbally articulated relations between the premises and conclusions. They move down the diagram in stages: some conclusions become premises for new conclusions. By *genetic relations*, I refer to influences, motivations, inspirations, and cause-and-effect relations. They are not indicated anywhere in the apron diagram. They may move up and down or anywhere, and they involve time.

The platform principles of the deep ecology movement can be grounded for individual supporters in a religion or an ultimate philosophy. The religions and philosophies from which people can support these principles are many and diverse. In a loose sense the movement can be said to be derived from these kinds of fundamentals. The situation reminds us that a set of very similar or even identical conclusions may be drawn from divergent premises. The platform can be the same, even though the fundamental premises differ. One must avoid looking for one definite philosophy or religion among all the supporters of the deep ecology movement. Fortunately, a rich manifold of fundamental views are compatible with the platform of

This article was reprinted with permission from *The Deep Ecology Movement: An Introductory Anthology*, edited by Alan Drengson and Yuichi Inoue (North Atlantic Books, 1995), 10–12.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

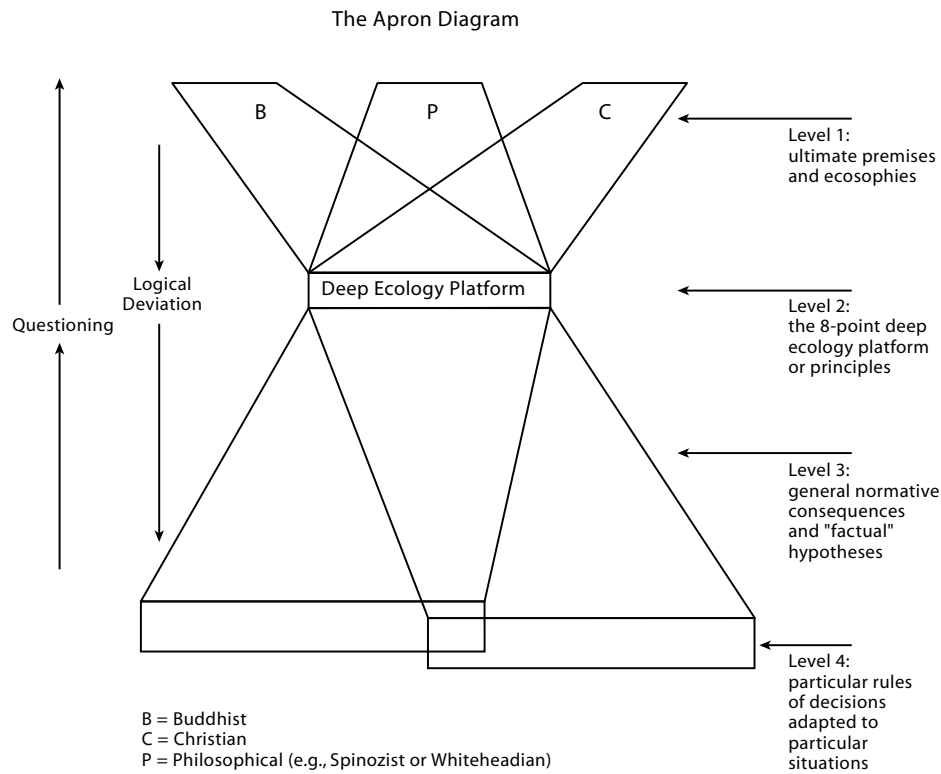


Figure 2. The Apron Diagram

the deep ecology movement. Supporters live in different cultures and have different religions. Furthermore, manifold kinds of consequences are derived from the platform because of these differences, because of differences in local conditions, and so on.

We must take four levels into account: (1) verbalized fundamental philosophical and religious ideas and intuitions; (2) the platform of the deep ecology movement; (3) more or less general consequences derived from the platform—lifestyles and general policies of every kind; and (4) concrete situations and practical decisions made in those situations.

The possibility of the platform principles being derived from a plurality of mutually inconsistent premises—the *B*-set and the *C*-set—is illustrated in the upper part of the apron diagram. *B* can be Buddhism, and *C* can be Christianity. *P* may be Spinoza's philosophy, or it could be Ecosophy

T. Similarly, the lower part of the diagram illustrates how, with one or more of the eight principles as part of a set of premises, mutually inconsistent conclusions may logically be derived, leading to the *C*-set or *B*-set of concrete decisions. *C* might be inspired by a sort of Christianity, and *B* by a sort of Buddhism. Or, again, P_1 may be Spinoza-inspired while P_2 follows a certain ecological philosophy. (Unfortunately, the relation of deepness in the apron diagram leads upward. If we are to avoid mixing metaphors, the apron should be turned upside down.)

The distinction between the four levels is important. Supporters of the deep ecology movement have ultimate views from which they derive their acceptance of the platform, but those views may be very different from person to person and from group to group. Likewise, supporters may disagree about what follows from the eight points, partly because they interpret them differently, partly because what follows does not follow from those eight points alone but from a wider set of premises, and these might be in conflict.

The deep ecology movement thus can be seen to manifest both plurality and unity: unity at level 2 (as is true for many global grassroots movements) and plurality at other levels. The apron diagram can be used to illustrate the same general aspects of other international movements, such as the social justice and peace movements.

Further Elaboration and Examples

1. Let us start by asking, What beliefs of supporters of the deep ecology movement might separate them from the rest of the supporters of the environmental movement? What might separate them on a fairly general and abstract level? No one answer is supposed to be the correct one, and the question itself may be interpreted in somewhat different ways.

Suppose one proposal contains eight points, each expressed through one, two, or three sentences. We are now going to study such a proposal from one and only one point of view, the premise-conclusion point of view.

2. We ask, How do supporters of the deep ecology movement justify their stated beliefs? Are some stated beliefs *based* on other beliefs they have? They cannot be based on other beliefs, because then you would have to have infinitely many. You must stop somewhere. Some are ultimate, at least temporarily ultimate. (Note that in speaking of beliefs we do not intend to

say that they are “*only* beliefs,” that is, that they are not certain or true or right or expressing facts.)

According to my experience, supporters of the deep ecology movement usually state beliefs on which they base some or all of their “eight-point beliefs.” These normally, but not always, have the character of ultimate beliefs, making them premises for their eight-point beliefs. That is, they suggest that from the former beliefs the eight-point beliefs follow as conclusions; thus, they accept the former beliefs as premises.

An example: Peter, a supporter of the deep ecology movement, says that all living beings have value in themselves. We ask him to justify that, if he does not think it is self-evident. Peter answers with two sentences: “Creatures that God has created all have a value in themselves. God created and creates every living kind of being.” We will say that Peter infers “All living beings have a value in themselves” as a conclusion from the two premises. He may then use the conclusion as a premise for new conclusions, for example: “Bacteria have value in themselves.” He only needs one more premise, namely, “Bacteria are living beings.” The new conclusion may again be used as one of the premises for reaching new conclusions. We get a *chain* of premise-conclusion relations.

We now introduce a distinction between “beliefs on level 1” and “beliefs on level 2.” Premises of the beliefs stated in the list of eight points we call beliefs on level 1, and the eight points themselves we call beliefs on level 2. Or speaking more generally: A set of beliefs that presents a proposal of what supporters of the deep ecology movement have *in common* on a fairly general and abstract level we call a set of beliefs on level 2. The premises of such a set, suggested by supporters of the deep ecology movement, we call beliefs on level 1.

In the example, the supporter of the deep ecology movement clearly has the existence of God as a creator as a premise. If he happens to have premises for his belief in God as a creator, we say that they also belong to level 1. That is, *any* premise Peter *uses* for his level-2 beliefs we class as belonging to his level-1 beliefs. We are not here interested in *what* they are, but that they are premises of the level-2 beliefs.

3. It turns out that different supporters of the deep ecology movement announce different level-1 beliefs—often incompatible sets. Or one sup-

porter does not understand at least some of the first-level beliefs of another supporter. To me a couple of Gary Snyder's Buddhist first-level beliefs, or rather some of his sentences expressing these beliefs, are ununderstandable. I might understand them if I studied Buddhism carefully enough, but such a study has no high priority: we agree on level 2.

The diversity of level-1 beliefs is a strength, not a weakness. There are no deep cultural differences without diversity at level 1.

Unity in diversity: unity at level 2, diversity at level 1!

4. Now we jump to a level we call level 4: practical decisions in concrete (dated) situations. "Ah, a moose in our garden. What do we do? Call the police!" Fifty years ago some people in Oslo ran for their guns. Now, (decent) people call the police, who are in charge of the practical decisions: shoot in earnest, shoot to tranquilize and transport the moose far out of Oslo, and so on. The decision to call the police may be taken by a supporter of the deep ecology movement, because he or she knows the rules and finds it is the best solution for the *moose*.

The level-4 decision cannot be based solely on level-2 beliefs. Critical, complex thinking involving a variety of beliefs intervenes. Those we say belong to level 3. Only under rare and special conditions do we try to articulate as fully as we can the additional premises leading from level 2 to level 4—"leading" in terms of a premise-conclusion chain. Difficult? In theory, yes, but we all sometimes use the aspects of premise and conclusion.

More or less inevitably, level 1 contains philosophical or religious beliefs (or both). I propose to characterize, or even define, a supporter of the deep ecology movement as a person whose environmentally relevant beliefs are based on philosophical or religious beliefs in the sense of having beliefs on level 1 that are, at least in a broad, *nonprofessional* sense, philosophical or religious.

The argumentation pattern of a supporter of the deep ecology movement, taken as a whole, reveals references to *ultimate premises*. This relates to the preferred sense of the term *deep*: the argumentation, if the supporter of the deep ecology movement tries to state what he or she ultimately stands for (in questions related to the environment and the ecological crisis), touches rock-bottom questions. Sheer deepness is not enough, however; the argumentation goes through level 2! James Watt, the U.S. administrator of

environmental policy under President Reagan, based his decisions on rock-bottom beliefs within his form of Christianity ("Why so much preservation when the end is near?"). He certainly did not accept any of the Naess-Sessions Eight Points or similar proposals.

A small technicality: some supporters of the deep ecology movement find that the intrinsic value of living beings is obvious, self-evident. Do we then say that they have no level-1 beliefs at this point? We may, but we may also say that the point belongs to *both* level 1 and level 2 for these particular supporters. Logically it is okay; they tell us that from premise *P*, the conclusion *P* follows. Anyhow, to hold that every living being has a value in itself is to enter the sphere of philosophical considerations. There are naturally a host of questions related to the four-level conception that lead us into difficulties, but here is not the place to go into them.

What, then, is the four-level conception good for? To sort out agreements and disagreements. For example, if by ecofeminism you mean that the ecological crisis owes essentially to the domination of masculine-type value priorities, this can be articulated on level 3. The strategy for overcoming the crisis, the level-4 decision, will be colored by a point of view belonging in deep ecology movement argumentation patterns. It shows up in the argumentation pattern of well-known deep ecology ecofeminists like Patsy Hallen (1987). Some supporters of the deep ecology movement will not entirely agree, and disagreement occurs between supporters of the deep ecology movement on levels 3 and 4.

The so-called apron diagram illustrates the kinds of room for agreement and disagreement. It is, however, not meant to suggest that only one definite set of level-2 beliefs should be available. Changing one or more of the eight points of the Naess-Sessions proposal means that changes will follow on the other levels. A movement is dynamic and manifests changes of emphasis.

Two things are often forgotten: the apron serves to clarify the specific character of a subspecies of the environmental movement. In a subspecies characterization, one does not include characteristics of the species as a whole. Supporters of the shallow or reform movement tend to argue only on levels 3 and 4, that is, their argumentation pattern when described in terms of the apron is wholly contained at those levels.

Against the term *shallow* the reformists argue that going into philoso-

The Apron Diagram

phy, questions about intrinsic value, meaning of life, and so on, is side-tracking the issue, getting lost in a blind alley, plus it undermines realistic cost-benefit analysis. It is therefore a plus, not a minus, to limit oneself to levels 3 and 4.

The second thing easily forgotten is the fact that the apron consistently limits itself to premise-conclusion relations; this arrangement is only one among many others, the “genetic” arrangements.

The Basics of Deep Ecology

I am very grateful to be here. Some weeks ago when I thought of this occasion I had two feelings. The first was that I was going to visit the British aristocracy! In school we learned a lot about the British aristocracy, and mostly it was positive. We got the notion that they were the best. By aristocracy I mean those who are in the forefront, the most enlightened and far-seeing members of society. I have a feeling that I am going to taste this British aristocracy today!

The second feeling was that I had come from one occupied country to another occupied country. The people of Norway were occupied from 1940 to 1945 by very unkind people. Now I feel that we are occupied by kind and well-meaning people. They do things for our welfare but in reality we feel completely estranged from the essence of the good life. I am sure that the same is true in Britain today. Only, I am glad to say, you were not occupied by bad people.

Those who occupy my country talk about the useless hills. Only a couple of days ago they referred to the useless hills in the neighborhood of Oslo, which, they thought, should be developed as a site for mansions. People who already have very nice houses could then go up to the hills and have still nicer houses by cutting down all the trees. So we are very far from a green and free society.

The realization of any society worthy of the name green presupposes that policies characteristic of deep ecology are adopted. The clarification of

A summary of the 1987 Schumacher lecture, this article was reprinted with permission from *Resurgence* (1988). It also appeared in *The Green Fuse: The Schumacher Lectures*, edited by John Button (London: Quartet Books 1990), 130–37.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

the term *deep ecology* will, I hope, contribute in a modest way to the realization of our aims. I am engaged in the articulation of the fundamental positions that are presupposed in green societies.

People ask, "Why can't we just feel and not articulate?" My answer is this: In our society there is constant communication, and we must be able to communicate on a verbal plane. If we are able to articulate our basic goals in life and get our opponents to agree to them, then we can go on to discuss practical matters such as "We must have more parking space." When we agree on basic goals we can ask, All right, what's the relation between our basic goals in life and this parking place? So, the articulation of our basic goals has an important role. We should never engage in any discussion on technicalities without asking, What do we basically need in life? Always ask the basic question. This is what I mean by the term *deep ecology movement*, or typical of supporters of it.

Let me then list some key sentences commonly held to be characteristic of a green society. It should be decentralized and should be a grassroots democracy. There should be social responsibility, mutual aid, and a reign of nonviolence. People should live in voluntary simplicity, with a high degree of self-reliance and with moderate mobility. Different generations should be able to live together and work together. There should be a feeling of community; technology should be appropriate; industrial and agricultural units should be small. Home and place of work should be near each other and transportation mainly public. There should be an absence of social hierarchy and an absence of male domination.

You will have noticed that all these concepts lack any kind of reference to nature or to ecology, but they are, of course, basic to a vision of a green society.

Then there are concepts of another type, namely, respect for nature, reverence for life, ecological agriculture, absence of monoculture forests, absence of animal factories, free access to nature, and so on.

Then there is a third aspect of the deep ecology approach. This is characterized by our deep relationship with the environment and a joyful acceptance of this relationship. It is taken for granted that the self is basically ecological. Talk about human beings in the environment is misleading, for we are as much out there as inside here. The beauty of a tree is as much in the tree as it is inside us. There is an object, a medium, and a subject, but

you cannot separate these three except as abstractions. People with this approach think in these terms: world first, men not apart, friends of the earth, ecological responsibility, the forest for the trees, hug the trees. If we say “the forest for the trees” we acknowledge that a forest is an end in itself; it does not need to serve any narrow human purpose.

The terms I have mentioned fall into three classes: those solely concerned with human society, those that combine society with nature, and those solely concerned with nature. Some groups working for the realization of a green society prefer the first class of slogans; others use the second or the third class.

There is an interesting difference between thinking green in central and Mediterranean Europe and thinking green in the marginal lands of north and south. By marginal northern and southern lands I mean Scandinavia, Great Britain, Canada, the northwestern United States, and Australia. I call them the “natural greens.” Then there are the “social greens” in Germany, France, the Mediterranean, and many other places where more stress is put upon society. The social greens say that a wrong attitude to nature reflects a wrong attitude between people. Domination, exploitation, and lack of respect within a society result in the same attitude to nature. They assume that if you get rid of these bad attitudes within society, then, more or less automatically, your relation to nature will be okay. What you have to do is reform society. You have to get involved in politics. Don’t disappear into the wilderness and live in a nice community as if this could be the norm of the whole society.

The natural greens say, “What’s so exciting about people when you consider porcupines or whales? We have to reduce the human population and have a nice planet.” That’s a caricature of them, but there’s a tendency to speak as if people were superfluous.

The supporters of the deep ecology movement combine the social greens with the natural greens while avoiding the extremes of both.

Some people have a concept of a green society that is utopian. They put into the term *green society* everything that is perfect. Others point out that Green party programs cannot just be descriptions of utopia. They must serve as blueprints for a major transition toward a green society. Fundamentalists say exactly how things should be while realists stress that in politics you have to use tactical considerations; a Green party cannot act in a utopian way.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

In discussions between fundamentalists and realists we should adopt the Gandhian form of nonviolence. In this you see the point of your opponent, you listen to the argument, interpreting benevolently, as far as you can. The Latin phrase is *Stupiditas adversariorum non est praeter necessitatem argumenendam*. That means you shouldn't make your opponent look unnecessarily stupid. During the 1960s we had a lot of different groups on the left. There was richness and variety, but they were fighting each other. Then came the ecology movement and from the very start there was a difference. There was much less of violent polemics. If your communication is consistently positive, you will get down deeper into the issues. If you say, "Wrong. You are absolutely wrong," your opponents will stick to their argument and say, "No, I was not wrong," but if you say, "Maybe you could put it a little differently," then you may be able to get agreement, and if you really disagree, you will be able to clarify it.

The supporters of the deep ecology movement are all over the world. A small minority are from the universities, a tiny fraction are writing about these matters, but our real strength is with those who don't give lectures but who are supporting the deep ecology movement in their lives. This movement started in the early 1960s with people like Rachel Carson. Those people were not speaking of cancer or of polluted air just because it was bad for humanity. They said, "It cannot be done to the planet, it cannot be done to nature, it cannot be done to the animals. It simply cannot be done." Those pioneers had a vision of reality that does not allow us to trample on natural life. Theirs was not a moral impulse—and I have the feeling that moralizing is not a great force in this world. So the ethics and the morals of environmentalism are of secondary importance. What is important is to get people to see reality and our relation to nature.

I introduced the distinction between "shallow" ecology and "deep" ecology. The supporters of shallow ecology think that reforming human relations toward nature can be done within the existing structure of society. They propose to make small changes here and there within the institutions; they suggest technical development to reduce pollution. They don't get down to the basics because they think that business can continue as usual. They will give a little more money to the department of the environment and to research. However, research only postpones the problem. There's a politician here in Great Britain who says that we must have more research

on the causes of acid rain. The better the researcher is, the more he or she says, “Oh, we don’t know enough, we must have more money.” Research is now on the wrong side. Researchers get one year to come up with some answers, but at the end of the year they say, “Well, we’re just starting, it seems to be very complicated. We need more time and money.” That’s how endless research goes on.

The deep ecology movement will say that we can never know enough—*docta ignorantia*, conscious ignorance. The best field ecologists use their intuition about reality. They can, of course, find out a little here and there, but they cannot always know the long-range effects of human interference. They understand the enormous complexity of the planet and of ourselves. So from this *docta ignorantia*, we get the idea that it is better not to do anything in which great risks are involved. The politician, however, is here to do things. So either you say any action that may damage the planet is wrong and we cannot do it, or you say we cannot know whether it is wrong or right and therefore we must not do it.

The tendency of the supporters of shallow ecology is to avoid the basic questions, whereas the deep ecology movement concerns itself with basic beliefs and assumptions about the universe. If you articulate the principles of the deep ecology movement you get a total view. The term *total view* is essential. The deep ecology movement is a total view. It covers our basic assumptions, our life philosophy, and our decisions in everyday life. I have also called the total view an “ecosophy” in order to distinguish it from ecology as a science. *Sophia* is Greek for wisdom. So, ecosophy means eco-wisdom, and wisdom has always been related to practice.

When we in the deep ecology movement talk about pollution, we ask, Pollution for whom? There are so many living beings. Are you talking about pollution for human beings? What about pollution for others? When we talk about resources, we ask, What about resources for squirrels as well as resources for human beings? When we talk about pollution, we must also consider the optimum population of rats. I think we have to avoid feeding rats as much as we do. We always go from discussing the sphere of human life, which is important for us, to life in general. Moreover, we would say that any short-range solution should cover at least the next fifty years. In deep ecology, fifty years is a very short time. In contrast to this is the shorthand solution—that is, next year, next election.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

In the deep ecology movement we are biocentric or ecocentric. For us it is the ecosphere, the whole planet, Gaia, that is the basic unit, and every living being has an intrinsic value.

The supporters of the deep ecology movement agree upon this, but in their very basic views about the universe and themselves, they may well disagree. They may have, for example, a Buddhist-inspired philosophy, or a Christian-inspired philosophy, or a nonreligious approach. At this most basic level we cannot understand each other. We cannot understand five or ten different religions. We shouldn't pretend to. It is culturally disastrous to pretend that we can understand all religions or all philosophies. That is a terrible error on the part of the universities—there are courses in all philosophies and all religions of the world, and the students are supposed to understand philosophers who are miles apart. I feel it is important in the deep ecology movement to have plurality, especially at this deepest level. However, from all religions and philosophical approaches we agree on the following points (comments are in parentheses).

1. The well-being and flourishing of human and nonhuman life on earth have intrinsic value, inherent worth. This value is independent of the usefulness of the nonhuman world for narrow human purposes.

2. Richness and diversity of life-forms contribute to a realization of these values and are also values in themselves. (Richness means we have to have an abundance of life of all kinds. We have to replenish the earth. In this sense, landscapes are living beings and so are rivers. I can't and I don't have to justify that diversity and richness; plurality of life is good in itself. People who claim to be realistic say, Well, I keep to facts. What, though, is the status of this sentence: *So-and-so is a fact*? In logic you need rules, and the goodness of those rules cannot be shown—they cannot be argued, they cannot come as a conclusion. If you say, "This rule of logic is valid," then I say, "Well, show me that, prove it." You have to use premises to arrive at a conclusion, and to do that, you have to have rules of inference by which you come from the premise to the conclusion. You cannot start by saying "I am for facts," because the term *fact* itself is a tremendously complex affair. Aristotle said that to try to prove everything is a sign of bad education. Diversity of life for us is such a premise; we don't need to waste time proving it.)

3. Human beings have no right to reduce this richness and diversity except to satisfy vital needs. (People say to me, "Oh, but what do you mean by

right?” I say, “I mean exactly the same as when children say, You have no right to hit my little sister”—and this is established practice among children, so there must be something in it.)

4. The flourishing of human life and culture is compatible with a substantial decrease of the human population. Flourishing of nonhuman life requires such a decrease. (Some people would call this “antihuman,” but I believe that it is not good even for human beings that we number five thousand million and are soon going to be eight thousand million. It’s not good even for the deep cultural differences on earth; it’s very difficult to have cultural differences with no space in between. This significant decrease in human population will not happen overnight. It may take a thousand years. This is our long-range vision. People say, A thousand years has nothing to do with the problem of today. Yes, it does have to do with today. For example, we have to change our architecture. Old people need small children around because small children are, after all, important. So the architecture will have to be such that there is a common ground, without streets, where small children and old people can get together. If we have two children per couple on an average, then there will be a transition period of hundreds of years but eventually we will have a smaller population.)

5. Present-day human interference with the nonhuman world is excessive, and the situation is rapidly worsening.

6. Policies must therefore be changed. These policies will affect our basic economic, technological, and ideological structures. (I have not had the courage to go into detail and define what these different structures will be because we are going to have a lot of different green societies. We shouldn’t have one set of structures imposed.)

7. The change in our attitudes will bring an appreciation of the quality of life rather than adherence to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great. (We will have a great society with no bigness. I am very much in love with the term *quality of life*. People say, “Well, that’s just a slogan. Standard of living is quantitative—that we can discuss and understand—but *quality of life*, what’s that?” I am very much for the richness and luxury that I have in my cottage in the high mountains of Norway. For more than ten years of living there, the feeling of richness has been tremendous. This is quality of life, however, not standard of living. If there is snow in winter, I dig down

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

into a lake for water. To heat that water from -1° to $+1^{\circ}$ takes as many calories as to heat it from $+1^{\circ}$ to 100° . So I use cold water for washing, but after one or two months of living there I feel very comfortable.)

In Great Britain and in Norway we have to accept a drop in our standard of living in order to have a standard that is universalizable. What I am saying is take it easy, take it easy; life quality may still be there, but you will have to shed some of your bad habits that destroy the planet. Much of the high standard of living is sheer bad habits that we cannot sustain because they are ruining the balance of Gaia.

8. Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement necessary changes.

The Breadth and the Limits of the Deep Ecology Movement

The gist of what I say here may be expressed in three sentences: To be joyfully active in the deep ecology movement is a serious affair. It is ethically unobjectionable not to combine that involvement with being active in the peace movement and the social justice movement. We respect our partners in the Green movement but have “more than enough!” to do where we stand.

It is a never-ending joy to think of the existence of a broad movement to protect the wild and free from thoughtless interference by human beings. It is a special joy to see how many people primarily occupied with mere survival nevertheless try to protect locally what is left of free nature. Defenders of free nature are, of course, always in a minority, but to be aware of comrades in arms locally and in so many countries helps to reduce the feelings of sorrow that can easily take hold when we contemplate the reigning passivity in the face of the ecological crisis.

I shall never forget traveling in 1949 through India and Pakistan to a mountain bordering Afghanistan. Because of our lack of money and the five hundred pounds of equipment and food, we inevitably came in close contact with people who were very poor from the point of view of the West. They were eager to hear what made us leave our country on a kind of pilgrimage. Again and again, it astonished us to see how well they understood our longings, and it was touching to hear them often say “How I would like to be with you.” Through more than twenty-five hundred years, their culture had embraced a respect for the dignity and wisdom of mountains and the living beings roaming the (at that time) enormous Himalayan forests.

This article was reprinted with permission from *Wild Earth* (Spring 1993): 74–75.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

Of course, all they could do was, together with other activists, protect the patches of free nature in their own neighborhood.

How do people in materially poor countries react when we talk about deep ecology? Using words common in their own cultures, many say "But this is what I always have felt!" This is not a majority reaction, but a minority that I guess is no smaller than in the so-called rich countries. Some are glad to get words for what they feel.

People who have never heard the term are supporting the deep ecology movement. Most supporters would feel bored if I, as a theoretician, started conceptual clarification of details. Yet, their efforts are consistent with deep ecology and often restrain the galloping destruction in their neighborhoods. It is a strange belief that people who work hard to survive are somehow unable to feel the majesty of mountains, the inherent value of forests and wildlife. Yet, many people believe that they are more "anthropocentric" than we are in the technocratic West.

In short, it is encouraging to experience the vast, intercultural roots of deep ecology attitudes and to see that they are alive among people who focus on procuring life's necessities. The deep ecology movement is broader than sometimes suggested. The broadness shows itself in the variety of scenarios for a better future envisaged by the supporters. Human cultural diversity is part of the richness of life-forms on Earth. Many supporters do not seem worried about the prospect of fairly uniform green societies all over the globe, but as I see it, ecological sustainability as an absolute requirement does not limit social-political structure to a single culture.

The peace movement, the social justice movement, and the radical environmental movement are the three movements in which work at the grass-roots level by hundreds of thousands of people is indispensable and has considerable influence in world affairs. Within the radical environmental movement, I include not only the deep ecology movement but also highly engaged "radical" supporters of more anthropocentric views who have the same serious view of the ecological crisis as the supporters of the deep ecology movement. Each of the movements introduces limitations on the range of cultures. The requirements of the three overlap but are not identical.

The tremendous upsurge of environmental concern since the 1960s has caused many supporters of the peace and social justice movements to jump on the environmental bandwagon, but all three movements constantly

need reinforcements. Because they are dynamic social movements, exact delimitation of the three is, of course, out of the question; historically, though, much can be said about what has happened since the Second World War in terms of those three.

In the 1950s, when Third World problematics gained force (with, for example, "Trade, not aid" as a slogan), there was considerable pressure to combine the peace and social justice movements into one. Some activists supporting this combination saw social injustice as a sort of violence, *structural* violence. The nonviolent battle against large-scale violence then comprised both the "classical" peace movement and a large part of the social justice movement. (Johan Galtung's works are central to this trend.) It has turned out, however, that people inspired by the vision of a world without wars had more than enough work to do without direct participation in the complexities of how to fight social injustice, even though activism against maldistribution and imperialism and other forms of obstructing self-realization potential over vast areas can be compatible with keeping peace. On the other hand, active involvement in typical social justice conflicts may require all of one's energy and leave no time for activism in matters of peace. The division of labor, however, does result in underestimation of the work of our friends in the other movements.

In recent decades millions of very poor people in Southeast Asia have seen their standard of living significantly bettered. How can we but rejoice? Yet, interference with ecosystems has concurrently increased. The prospect of a billion or more people being rescued from severe need does not necessarily mean a gain in overcoming the ecological crisis. Leaders of social democratic regimes often talk as if development were part of the (smooth) way of overcoming the crisis. This talk is politically convenient but utterly misleading.

The empowerment of people in the West living in a most degrading way in the midst of an opulence never equaled in world history (read "in human recorded history of human societies") is an imperative, and more people are needed to try to change those shameful conditions. Some supporters of the deep ecology movement may feel they ought to join, and that may be the right thing for them to do. They know, though, that the fight against the ecological crisis will still need as many activists even if the shameful conditions are eliminated.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

The very ambitious aim of the Green movement as conceived in Europe in the late 1960s is to reach the goals of all three great grassroots movements: no wars, social justice, and full ecological sustainability. When students voted overwhelmingly in the first green wave, they were led by former anarchists, Marxists, and peace activists. The Green movement is supposed to avoid one-sidedness and sectarianism, letting the three movements blossom in constant close collaboration.

Collaboration does not imply extensive reading of all pertinent literature and keeping informed about details of what is going on in the other two movements. That tends to feed depression and despair. Reading is passive, and the information from all over the world is mostly discouraging. Perhaps I say this because of my experience of living under Nazi occupation from 1941 to 1945, but a persistent question is, How about morale? Can anything be done to keep it (the fighting spirit) at its highest level?

In sum, let us do our job as well as we can and rejoice that others do theirs, keeping in touch and sometimes acting together. This is the surest way to keep the spirit.

The Deep Ecology Movement: Some Philosophical Aspects

Deep Ecology on the Defensive

Increasing pressures for growth have forced the vast majority of ecologists and other environmental professionals into a defensive position. let me illustrate.

The field ecologist K, who both professionally and personally vigorously advocated deep ecological principles in the late 1960s, encountered considerable resistance. Colleagues at the university said that he should keep to his science and not meddle in philosophical and political matters, that he should resist the temptation to become a prominent “popularizer” through exposure in the mass media. Nevertheless, he continued and influenced thousands (including myself). He became a recognized “expert” in assessing the damage done when bears killed or maimed sheep or other domestic animals in Norway. According to the law, their owners are to be paid damages. Licensed hunters can get permission to shoot a bear if its misdeeds become considerable.¹ Growth pressures required consolidating the sheep industry, and sheep owners became fewer, richer, and more prone to live in towns. Because of wage increases, they could not afford to hire shepherds to watch their flocks, so the sheep were left alone in what were traditionally “bear territories.” In spite of this invasion, bear populations grew, and troubles multiplied.

What was K’s reaction? Did he set limits to human encroachments on

This article was reprinted with permission from *Philosophical Inquiry* 8 (1986): 10–31.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

bear territory? Did he directly apply his deep ecology perspective? Quite the contrary. He adopted a shallow wildlife management perspective that defended the sheep owners: more money in compensation for losses, quicker compensation, and immediate hiring of hunters to reduce the bear population. Other deep ecology supporters noted with concern his altered public "image"; had K really abandoned his former value priorities? Privately he insisted that he had not, but in public he was silent.

The reason for K's unexpected actions was not difficult to find: the force of economic growth was so strong that the laws protecting bears would be changed in a direction highly unfavorable to the bears if the sheep owners were not soon pacified by having some of their demands met. Moreover, some of their demands seemed reasonable. After all, it did cost a lot of money to hire and equip rescuers to locate a flock of sheep that had been harassed by a bear and, further, to prove the bear's guilt. In addition, the bureaucratic procedures involved were time-consuming. In short, K had not changed his basic value priorities at all. Rather, he had adopted a purely defensive compromise. He stopped promoting his deep ecology philosophy in public to retain credibility and standing among opponents of his principles.

What is true of K is true of thousands more. These people often hold responsible positions from which they might strengthen responsible environmental policy. Given the exponential forces of growth, however, their publications are limited to narrowly professional and specialized concerns. Their writings are surely competent but lack a deeper, more comprehensive perspective (although I admit that there are some brilliant exceptions). If professional ecologists persist in voicing their value priorities, their jobs are often imperiled, or they tend to lose influence and status among those who are in charge of general policies. Privately, they may admit the necessity for deep and far-reaching changes, but they remain silent in public. As a result, their positive impact on the public has largely vanished. Deeply concerned people feel abandoned by the "experts."

In ecological debate many participants know a great deal about particular conservation policies in particular places, and many others have strong opinions regarding fundamental philosophical questions of environmental ethics, but only a few have both qualities. When they are silent, the loss is formidable.

Let me illustrate again. A family of four decides to acquire four chairs for a small room, newly added to the home. They buy the chairs and all have peace of mind. Then one of them gets an urge to put ten more chairs in the room. Two of the family members who are technically talented and eager to satisfy any “need” use their time to solve the sophisticated physical and mathematical problems involved. When they ask the fourth member to work overtime to get the money to purchase the ten chairs, she answers that the chairs are unnecessary for a life rich in intrinsic values and simple in means. She begins to argue for her view, but the two technocrats insist that first she should work through all the alternative solutions to the Ten Chair problem. At last, she wonderfully simplifies the argument. If the ten chairs are not a desired end, it is pointless to discuss the means by which this might be achieved. The technically talented find other outlets for their surplus energy, for there are always enough legitimate problems to work on.

The complicated question of how industrial societies can increase energy production with the least undesirable consequences is of the same kind: a waste of time if the increase is pointless in relation to ultimate ends. When thousands of experts hired by government and other big institutions devote their time to this complicated problem, it is difficult for the public to learn that many of them judge the problem pointless and irrelevant. What is relevant, according to them, are the problems of how to stabilize and eventually decrease consumption without loss of life quality.

A Call to Speak Out

What I advocate and argue for is this: even those who completely subsume ecological policies under the narrow ends of human health and well-being cannot attain their more modest aims, at least not fully and easily, without being joined by supporters of deep ecology. They need what these people have to contribute, as this alliance will work for them more often than it works against them. Those in charge of environmental policies, even if they are resource-oriented (and growth-tolerating?) decision makers, will increasingly welcome what deep ecology supporters have to say, if only for

tactical and not fundamental reasons. Even though the more radical ethic may seem nonsensical or untenable to them, they know that its advocates are doing in practice conservation work that sooner or later must be done. They concur with the practice, although they operate from diverging theories. If I am right, the time is ripe for professional followers of deep ecology to break their silence and freely express their deepest concerns. A bolder advocacy of deep ecology by those who are working within the shallow, resource-oriented "environmental" sphere is the best strategy for reestablishing some of the strength of this movement among the general public and thereby contributing, however modestly, to a turning of the tide.

What do I mean by saying that even the more modest aims of shallow environmentalism have a need for deep ecology? We can see this by considering the *World Conservation Strategy* prepared by the International Union for Conservation of Nature and Natural Resources (IUCN) with the advice, cooperation, and financial assistance of the United Nations Environmental Program (UNEP) and the World Wildlife Fund (WWF). The argument in this important publication is through and through anthropocentric in the sense that all its recommendations are justified in terms of their effects on human health and well-being. Even the recommended environmental ethic, with its attendant environmental education campaign, has human beings in harmony with nature for human good. "A new ethic, embracing plants and animals as well as people, is required for human societies to live in harmony with the natural world on which they depend for survival and well-being" (IUCN 1980: sec. 13). Such an ethic would surely be more effective if it were acted upon by people who believe in its validity, rather than by those who merely believe in its usefulness. This, I think, will come to be understood more and more by those in charge of educational policies. Quite simply, it is indecent for a teacher to proclaim an ethic only for tactical reasons. Further, this point applies to all aspects of world conservation strategy. Conservation strategy will be more eagerly implemented by people who love what they are conserving, and who are convinced that what they love is intrinsically lovable. Such lovers will not want to hide their attitudes and values, but rather will increasingly give voice to them in public. They have a genuine ethics of conservation, not merely a tactically useful instrument for social and political ends.

In short, environmental education campaigns can fortunately combine anthropocentric arguments with a practical land and sea ethic based on a deeper and more fundamental naturalistic philosophical or religious perspective, and on a set of norms resting on intrinsic values. The inherent strength of this overall position will be lost, however, if those who work professionally on environmental problems do not give public testimony to these fundamental norms.

This article is hortatory, in the positive etymological sense of that word. I seek “to urge, incite, instigate, encourage, cheer” (Latin: *hortari*). This may seem unacademic in a philosophical journal, but I consider it justifiable because of an intimate relationship between hortatory sentences and basic philosophical views, which I will formulate below.

What Is Deep Ecology?

So far, I have used the term *deep ecology movement* without trying to define it. One should not expect much from definitions of movements—think of terms such as *conservatism*, *liberalism*, and *feminism*. Moreover, it is not necessary that supporters adhere to exactly the same definition. In what follows, a set of principles, or key terms and phrases, agreed upon by George Sessions and myself, are tentatively proposed as basic to deep ecology.² The list is followed by comments on each of the eight principles.

1. The well-being and flourishing of human and nonhuman life on Earth have value in themselves (synonyms: intrinsic value, inherent value). These values are independent of the usefulness of the nonhuman world for human purposes.
2. Richness and diversity of life-forms contribute to the relation of these values and are also values in themselves.
3. Human beings have no right to reduce this richness and diversity except to satisfy vital needs.
4. The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease.
5. Current human interference with the nonhuman world is excessive, and the situation is rapidly worsening.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

6. Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present state of affairs.
7. The ideological change is mainly that of appreciating life quality (dwelling in situations of inherent value) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.
8. Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement the necessary changes. It is this principle that highlights the importance of *deep questioning* as the process by which to follow/develop/enact the other principles.

Basic Principle 1

Formulation 1 refers to the biosphere or, more accurately, to the eco-sphere as a whole. This includes individuals, species, populations, and habitats, as well as human and nonhuman cultures. From our current knowledge of all-pervasive intimate relationships, this implies a fundamental deep concern and respect. Ecological processes on the planet should, on the whole, remain intact. “The world environment should remain ‘natural’” (Gary Snyder).

The term *life* is used here in a comprehensive, nontechnical way to refer also to what biologists classify as “nonliving”: rivers (watersheds), landscapes, ecosystems. For supporters of deep ecology, slogans such as “Let the river live” illustrate this broader usage so common in most cultures.

Inherent value, as used in formulation 1, is common in deep ecology literature. “The presence of inherent value in a natural object is independent of any awareness, interest, or appreciation of it by any conscious being” (Regan 1981: 30).

Basic Principle 2

More technically, formulation 2 concerns diversity and complexity. From an ecological standpoint, complexity and symbiosis are conditions for maximizing diversity. So-called simple, lower, or primitive species of plants and animals contribute essentially to richness and diversity of life.

They have value in themselves and are not merely steps toward the so-called higher or rational life-forms. The second principle presupposes that life itself, as a process over evolutionary time, implies an increase of diversity and richness. The refusal to acknowledge that some life-forms have greater or lesser intrinsic value than others (see points 1 and 2) runs counter to the formulations of some ecological philosophers and New Age writers.

Complexity, as referred to here, is different from complication. Urban life may be more complicated than life in a natural setting without being more complex in the sense of multifaceted quality.

Basic Principle 3

The term *vital need* is left deliberately vague in formulation 3 to allow for considerable latitude in judgment. Differences in climate and related factors, together with differences in the structures of societies as they now exist, need to be considered. (For some Eskimos, snowmobiles are necessary today to satisfy vital needs; the same cannot be said for tourists.)

Basic Principle 4

People in the materially richest countries cannot be expected to reduce their excessive interference with the nonhuman world to a moderate level overnight. The stabilization and reduction of the human population will take time. Interim strategies need to be developed. In no way, however, does this excuse the current complacency. The extreme seriousness of our situation must first be realized, and the longer we wait the more drastic will be the measures needed. Until deep changes are made, substantial decreases in richness and diversity are liable to occur: the rate of extinction of species will be ten to one hundred times greater than at any other period in Earth's history.

Basic Principle 5

Formulation 5 is mild. For a realistic assessment of the situation, see the unabridged version of the IUCN's *World Conservation Strategy*. There are

other works to be highly recommended, such as Gerald Barney's *Global 2000 Report to the President of the United States*.

The slogan of "noninterference" does not imply that human beings should not modify some ecosystems as do other species. Human beings have modified the earth and will probably continue to do so. At issue is the nature and extent of such interference.

The fight to preserve and extend areas of wilderness or near-wilderness should continue and should focus on the general ecological functions of these areas. One such function is that large wilderness areas are required in the biosphere to allow for continued evolutionary speciation of animals and plants. Most currently designated wilderness areas and game preserves are not large enough to allow for such speciation.

Basic Principle 6

Economic growth as conceived and implemented today by the industrial states is incompatible with principles 1–5. There is only a faint resemblance between ideal sustainable forms of economic growth and current policies of the industrial societies. Moreover, "sustainable" still means "sustainable in relation to people."

Present-day ideology tends to value things because they are scarce and because they have a commodity value. There is prestige in vast consumption and waste (to mention only several relevant factors).

Whereas "self-determination," "local community," and "think globally, act locally" will remain key terms in the ecology of human societies, nevertheless the implementation of deep changes requires increasingly global action, action across borders.

Governments in Third World countries are mostly uninterested in deep ecological issues. When the governments of industrial societies try to promote ecological measures through Third World governments, practically nothing is accomplished (for example, with problems of desertification). Given this situation, support for global action through nongovernmental international organizations becomes increasingly important. Many of these organizations are able to act globally "from grass roots to grass roots," thus avoiding negative governmental interference.

Cultural diversity today requires advanced technology, that is, techniques that advance the basic goals of each culture. So-called soft, intermediate, and alternative technologies are steps in this direction.

Basic Principle 7

Some economists criticize the term *quality of life* because, they say, it is vague. On closer inspection, however, what they consider to be vagueness is actually the nonquantitative nature of the term. One cannot quantify adequately what is important for quality of life as discussed here, and there is no need to do so.

Basic Principle 8

There is ample room for different opinions about *priorities*: what should be done first, what next; what is most urgent; what is clearly necessary as opposed to highly desirable but not absolutely pressing.

Although many supporters of the deep ecology movement may find the above formulations useful, others will certainly feel that they are imperfect, even misleading. If they need to formulate in a few words what is basic in deep ecology, they will propose an alternative set of sentences. I shall, of course, be glad to refer to those formulations as alternatives. There ought to be a measure of diversity in what is considered basic and common.

Should we call the movement the deep ecology movement?³ There are at least six other designations that cover most of the same issues: "Ecological Resistance," used by John Rodman in important discussions; "The New Natural Philosophy," coined by Joseph Meeker; "Eco-philosophy," used by Sigmund Kvaloy and others to emphasize (1) a highly critical assessment of industrial growth societies from a general ecological point of view and (2) the ecology of the human species; "Green Philosophy and Politics" (although the term *green* is often used in Europe, in the United States it has a misleading association with the rather "blue" Green Revolution); "Sustainable Earth Ethics," as used by G. Tyler Miller; and "Ecos-

ophy,” eco-wisdom, which is my own favorite term. Others could also be mentioned.

Why use the adjective *deep*? This question will be easier to answer after the contrast is made between shallow and deep ecological concerns.

What I am talking about is not a philosophy in any academic sense, nor is it institutionalized as a religion or an ideology. Various persons come together in campaigns and direct actions. They form a circle of friends supporting the same kind of lifestyle, which others term “simple” but they themselves think is rich and many-sided. They agree on a vast array of political issues, although they may otherwise support different political parties. As in all social movements, slogans and rhetoric are indispensable for ingroup coherence. They react together against the same threats in a predominantly nonviolent way. Perhaps the most influential participants are artists and writers who do not articulate their insights in terms of professional philosophy, but do express themselves in art or poetry. For these reasons, I use the term *movement* rather than *philosophy*.

Deep Versus Shallow Ecology

A number of key terms and slogans from the environmental debate will clarify the contrast between the shallow and the deep ecology movements.

Pollution

Shallow approach: Technology seeks to purify the air and water and to spread pollution more evenly. Laws limit permissible pollution. Polluting industries are preferably exported to developing countries.

Deep approach: Pollution is evaluated from a biospheric point of view,⁴ not centering on its effects on human health, but on life as a whole, including life conditions of every species and system. The shallow reaction to acid rain is to avoid action by demands for more research, demands to find species of trees tolerating high acidity, and so on, whereas the deep approach concentrates on what is going on in the total ecosystem and asks for a high-priority fight against the economy and technology responsible for acid rain.

The priority is to fight deep causes of pollution, not merely the super-

ficial, short-range effects. The Third and Fourth worlds cannot afford to pay the total cost of the war against pollution in their regions, and consequently they require the assistance of the First and Second worlds. Exporting pollution is not only a crime against humanity, but also against life.

Resources

Shallow approach: The emphasis is on resources for human beings, especially the present generation in affluent societies. In this view, the Earth's resources belong to those who have the technology to exploit them. There is confidence that resources will not be depleted because, as they get rarer, a high market price will conserve them, and substitutes will be found through technological progress. Further, animals, plants, and natural objects are valuable only as resources for human beings. If no human use is known, they can be destroyed with indifference.

Deep approach: The concern here is with resources and habitat for all life-forms for their own sake. No natural object is conceived of solely as a resource. This then leads to a critical evaluation of human modes of production and consumption. One must ask, To what extent does an increase here favor ultimate values in human life? To what extent does it satisfy vital needs, locally and globally? How can economic, legal, and educational institutions be changed to counteract destructive increases? How can resource use serve the quality of life rather than the economic standard of living as generally promoted in consumerism? There is an emphasis here on an *ecosystem approach* rather than just the consideration of isolated life-forms or local situations. There is a long-range maximal perspective of time and place.

Population

Shallow approach: The threat of (human) overpopulation is seen mainly as a problem for developing countries. One condones or even cheers population increases in one's own country for shortsighted economic, military, or other reasons; an increase in the number of human beings is considered a value in itself or as economically profitable. The issue of optimum population for humankind is discussed without reference to the question of the

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

optimum population of other life-forms. The destruction of wild habitats caused by an increasing human population is accepted as an inevitable evil. Drastic decreases of wild life-forms tend to be accepted as long as species are not driven to extinction. Animal social relations are ignored. The long-term substantial reduction of the global human population is not seen as a desired goal. One has a right to defend one's own borders against "illegal aliens," no matter what the population pressures elsewhere.

Deep approach: It is recognized that excessive pressures on planetary life conditions stem from the human population explosion. The pressure stemming from industrial societies is a major factor, and population reduction must have a high priority in those societies, as well as in developing countries. Estimates of an optimal human population vary. Some quantitative estimates are 100 million, 500 million, and 1,000 million, but it is recognized that there must be a long-range human-population reduction through mild but tenacious political and economic measures. This will make possible, as a result of increased habitat, population growth for thousands of species that are now constrained by human pressures.

Cultural Diversity and Appropriate Technology

Shallow approach: Industrialization of the kind manifested in the West is held to be the goal for developing countries. The universal adoption of Western technology is compatible with mild cultural diversity and the conservation of good (from the Western point of view) elements in present-day nonindustrial societies. There is a low estimate of deep cultural differences that deviate significantly from Western standards.

Deep approach: Cultural diversity is an analogue on the human level to the biological richness and diversity of life-forms. We should give high priority to cultural anthropology in education in industrial societies. We should limit the impact of Western technology on nonindustrial countries and defend the Fourth World against foreign domination. Political and economic policies should favor subcultures within industrialized societies. Local, soft technologies will allow a basic cultural assessment of any technical innovations. The deep approach freely criticizes so-called advanced technology and concepts of "progress."

Land and Sea Ethics

Shallow approach: Landscapes, ecosystems, rivers, and other wholes of nature are cut into fragments; larger units and gestalts are disregarded. These fragments are regarded as the property and resources of individuals, organizations, or states. Conservation is argued in terms of “multiple use” and “cost-benefit analysis.” Social costs and long-term ecological costs are not included. Wildlife management conserves nature for “future generations of human beings.” The erosion of soils or of groundwater quality is noted as a human loss, but a strong belief in future technological progress makes deep changes seem unnecessary.

Deep approach: Earth does not belong to human beings. The Norwegian landscapes, rivers, fauna and flora, and the surrounding sea are not the property of Norwegians. Human beings only inhabit the land, using resources to satisfy vital needs. If their nonvital needs conflict with the vital needs of nonhuman life-forms, human beings might yield. The destruction now going on will not be cured by a technological fix. Current arrogant notions in industrial (and other) societies must be resisted.

Education and Scientific Enterprise

Shallow approach: The degradation of the environment and resource depletion necessitate the further training of experts who can advise on how to combine economic growth with the maintenance of a healthy environment. We are likely to need highly manipulative technology when global economic growth makes further degradation inevitable. The scientific enterprise must continue giving priority to the “hard” sciences. This necessitates high educational standards with intense competition in relevant “tough” areas of learning.

Deep approach: Education should concentrate on increased sensitivity to nonconsumptive goods and on such consumables as we have enough of for all, provided sane ecological policies are adopted. Education will therefore counteract the excessive valuation of things with a price tag. There should be a shift in emphasis from “hard” to “soft” sciences, especially those that stress local culture and global cooperation. The educational ob-

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

jective of the *World Conservation Strategy*, “building support for conservation,” should be accorded priority within the deeper framework of respect for the biosphere.

In the future, there will be no shallow movement, if shallow policies are increasingly adopted by governments and, thus, need no support from a special social movement.

Why a “Deep” Ecology?

The decisive difference between a shallow and a deep ecology movement hinges on the willingness to question, and to appreciate the importance of questioning, every economic and political policy in public. The questioning is “deep” and public. It asks *why* more insistently and consistently, taking nothing for granted. Deep ecology can readily admit the practical effectiveness of anthropocentric arguments. “It is essential for conservation to be seen as central to human interests and aspirations. At the same time, people—from heads of state to the members of rural communities—will most readily be brought to demand conservation if they themselves recognize the contribution of conservation to the achievement of their needs, as perceived by them, and the solution of their problems, as perceived by them” (IUCN 1980: sec. 13). Since most policies serving the biosphere also serve humanity in the long run, they may, at least initially, be accepted on the basis of narrow “anthropocentric” arguments.

Nevertheless, such a tactical approach has significant limitations. There are three dangers. First, some policies based on successful anthropocentric arguments turn out to violate or compromise unduly the objectives of deeper argumentation. Second, the strong motivation to fight for decisive change and the willingness to serve a great cause are weakened; and, third, the complicated arguments in human-centered conservation documents such as the *World Conservation Strategy* go beyond the time and ability of many people to assimilate and understand and also tend to provoke interminable technical disagreements among experts. Special-interest groups with narrow, short-term exploitative objectives that run counter to saner ecopolicies often exploit these disagreements and thereby

stall the debate and steps toward effective action. When arguing from deep ecological premises, one need not discuss at all most of the complicated proposed technological fixes. The relative merits of alternative-technology proposals in industrial societies concerned with how to increase energy production are pointless if our vital needs have already been met. The focus on vital issues activates mental energy and strengthens motivation. The shallow environmental approach, on the other hand, tends to make the human population more passive and less interested in environmental issues.

The deep ecology movement tries to clarify the fundamental presuppositions underlying our economic approach in terms of value priorities, philosophy, and religion. In the shallow movement, argument comes to a halt long before this. The deep ecology movement is therefore “the ecology movement that questions deeper.”

The terms *egalitarianism*, *homocentrism*, *anthropocentrism*, and *human chauvinism* are often used to characterize points of view on the shallow–deep ecology spectrum. These terms, though, usually function as slogans that are open to misinterpretation. They can imply that human beings are in some respects only “plain citizens” (Aldo Leopold) of the planet on a par with all other species, but they are sometimes interpreted as denying that human beings have any “extraordinary” traits, or that in situations involving vital interests, human beings have no overriding obligations toward their own kind. They have!

In any social movement, rhetoric has an essential function of keeping members fighting together under the same banner. Rhetorical formulations also serve to provoke interest among outsiders. Of the better-known slogans, one might mention “Nature knows best,” “Small is beautiful,” and “All things hang together.” Clearly, all things in the universe do not hang together at the level of quantum physics or relativity theory: the slogan only expresses a doctrine of global, not cosmic, relevance.

Only a minority of deep ecology supporters are academic philosophers such as I. Although deep ecology is not a finished philosophical system, this does not mean that movement philosophers should not try to be as clear as possible. So a discussion of deep ecology as a derivational system may be of value.

Deep Ecology Illustrated as a Derivational System

Underlying the eight tenets or principles above are still more basic positions and norms, which reside in philosophical systems and various world religions. Schematically, we may represent the total views implied in the movement by streams of derivation from the most fundamental norms and descriptive assumptions to particular decisions in actual life situations (see figure 2, chapter 9).

This pyramidal model has some features in common with hypothetico-deductive systems. The main difference, however, is that some sentences at the top (deepest) level are normative, and are preferably expressed by imperatives. This makes it possible to arrive at imperatives at the lowest derivational level, the crucial level in terms of decisions. Thus, there are *oughts* in our premises, as well as in our conclusions. We do not move from an *is* to an *ought*.

Just as in a hypothetico-deductive system in physics, where only the two upper levels of the pyramid are thought of as forming physics as a system, so also in normative systems only the upper levels are considered to be part of the total system. The sentences in the lowest part are changing from day to day as life situations change.

This derivational structure of a total view must not be taken too seriously. It is not meant in any restrictive way to characterize creative thinking within the deep ecology movement. That thinking moves freely in any direction. Nevertheless, some of us with professional backgrounds in science and analytical philosophy find it helpful.⁵

Answers to ultimate questions—that is, the highest normative principles and basic assumptions about the world—occur in the upper part of the derivational pyramid. The first three basic principles of deep ecology (as outlined above) belong to the upper level of the pyramid because they assert, in a general way, that life in its diversity is a value in itself and thus forms a norm against undue human interference. The next four (4–7) tenets belong to the middle region because they are more local; their purview is what is going on at present. They include factual claims and projections about the consequences of current policies in industrial and nonindustrial countries. An application of the last tenet (8) is at the lowest derivational level because it imposes an obligation to take part in actions to change poli-

cies. Such an obligation must be derivable from principles higher up in the pyramid.

There are a few propositions at the top of the pyramid, a great variety at the middle level, and innumerable recommendations at the bottom.

Multiple Roots of the Deep Ecology Principles

The deep ecology movement seriously questions the presuppositions of shallow argumentation. Even what counts as a rational decision is challenged, because “rational” is always defined in relation to specific aims and goals. If a decision is rational in relation to the lower-level aims and goals of our pyramid but not in relation to the highest level, then the decision should not be judged to be rational. If an environmentally oriented policy decision is not linked to intrinsic values, its rationality is yet undetermined. The deep movement connects rationality with a set of philosophical and religious foundations. One cannot expect the ultimate premises to constitute rational conclusions. There are no “deeper” premises available.

The deep ecological questioning reveals the fundamental normative orientations. Shallow argumentation stops before reaching fundamentals or jumps from the ultimate to the particular, that is, from level 1 to level 4.

It is not only normative claims that are at stake. Most (perhaps all) norms presuppose ideas about how the world functions. Typically, the vast majority of propositions needed in normative systems are descriptive. This holds of all levels.

Notice, however, that it does not follow that supporters of deep ecology must have, on ultimate issues, identical beliefs. They do have common attitudes about intrinsic values in nature, but these can, in turn (at a still deeper level), be derived from different, mutually incompatible sets of ultimate beliefs.

Thus, while a specific decision may be judged as rational from within the derivational system (if there is such) of shallow ecology, it might be judged irrational from within the derivational system of deep ecology. What is rational within the deep ecology derivational pyramid does not require unanimity in ontology and fundamental ethics. Deep ecology sup-

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

port as a conviction, with its subsequently derived practical recommendations, can follow from several more comprehensive worldviews. Deep ecology is a grassroots movement, not a worldview.

Those engaged in the deep movement have so far revealed their philosophical or religious homes mainly to be in Christianity, Buddhism, Taoism, or a personal philosophy. The top level of the derivational pyramid can therefore be made up of normative and descriptive principles that belong to forms of Christianity, Buddhism, Taoism, and various philosophical creeds.

Since the late 1970s, numerous Christians in Europe and America, some of them teachers of theology, have actively participated in the deep ecology movement. Their interpretations of the Bible and their theological positions in general have been reformed from what was, until recently, a crudely anthropocentric emphasis within Christianity.

There is an intimate relation between some forms of Buddhism and the deep ecology movement. The history of Buddhist thought and practice, especially the principles of nonviolence, noninjury, and reverence for life, sometimes makes it easier for Buddhists to understand and appreciate that movement than it is for Christians, despite a (sometimes overlooked) blessedness that Jesus recommended in peacemaking. I mention Taoism chiefly because there is some basis for calling John Muir a Taoist.⁶

Ecosophies are not religions in the classical sense, but general philosophies inspired by ecology. In the next section I will introduce Ecosophy T.

The adherents of different religions and philosophies disagree and may not even ultimately understand each other at the foundational levels of conviction and experience. Nevertheless, they can have important derived views in common, and these, though themselves derived, are nevertheless deep enough to form what I wish to call the upper level of the deep ecology derivational pyramid.

Some have worried that the mixture of religion and environmentalism could prove a source of dogmatism, intolerance, and "mysticism" (in the sense of obscurantism). So far, there is no evidence that this is happening. Nature mysticism has little to do with obscurantism.⁷

Ecosophy T

The main theoretical complaint against the shallow ecology movement is not that it is based on a well-articulated but incorrect philosophical or religious foundation. It is, rather, that there is a lack of depth—or complete absence—of guiding philosophical or religious foundations.

In his excellent book on how to “live in the environment,” G. Tyler Miller (1983: 489) writes:

The American attitude (and presumably that of most industrialized nations) toward nature can be expressed as eight basic beliefs [four of which are reproduced here].

1. Humans are the source of all value.
2. Nature exists only for our use.
3. Our primary purpose is to produce and consume. Success is based on material wealth.
4. Production and consumption must rise endlessly because we have a right to an ever increasing material level of living.

Miller adds an important reservation:

Although most of us probably would not accept all of these statements, we act individually, corporately, and governmentally as if we did—and this is what counts.

When they are so badly exposed, we might find that few people would explicitly subscribe to what Miller characterizes as “the American attitude.” Nevertheless, as Miller notes, most modern people (and not only Americans!) behave as if they believed such a creed. There is no articulated philosophical or religious view from which “the American attitude” is carefully justified.

The shallow movement has not offered examples of total views comprising the four levels in our illustration. I am tempted to say that there will be no examples. Serious attempts to find a deep justification for the way life on the planet is treated today (including the threats of using nuclear “weapons”) are doomed to failure. What I say is meant as a challenge: is there a philosopher somewhere who would like to try?

My main purpose in announcing that I feel at home in “Ecosophy T” is didactic and dialectic. I hope to get others to announce their philosophy. If they say they have none, I maintain that they have but perhaps do not know their own views, or are too modest or inhibited to proclaim what they believe. Following Socrates, I want to provoke questioning until others know where they stand on basic matters of life and death. This is done by using ecological issues, and also by using Ecosophy T as a foil. Socrates, though, pretended in debate that he knew nothing. My posture seems to be the opposite. I may seem to know everything and to derive it magically from a small set of hypotheses about the world. Both interpretations are misleading! Socrates did not consistently claim to know nothing, nor do I in my Ecosophy T pretend to have all that comprehensive a knowledge. He claimed to know, for example, about the fallibility of human beings’ claims to know.

So, here is Ecosophy T (see figure 1):

Its fundamental norm is “Self-realization!” I do not, however, use this expression in any narrow, individualistic sense. I want to give it an expanded meaning based on the distinction between Self and self as conceived in certain Eastern traditions of ātman, comprising all the life-forms, and selves (jīvas) as usually interpreted in social and personal life.⁸ I use only five words: *maximum (long-range, universal) Self-realization!* If I had to give up the term fearing its inevitable misunderstanding, I would use the term *symbiosis*. “Maximize Self-realization!” could be interpreted in the direction of colossal ego trips, but “Maximize symbiosis!” could be interpreted in the opposite direction, that of the elimination of individuality in favor of collectivity.

Viewed systematically, not individually, maximum Self-realization implies maximizing the manifestations of life. So I next derive the second term, “*Maximize (long-range, universal) diversity!*” A corollary is that the higher the levels of Self-realization attained by a person, the more any further increase depends upon the Self-realization of others. Increased self-identification is increased identification with others. “Altruism” is a natural consequence of this identification.

This leads to a hypothesis about an inescapable increase of identification with other beings when one’s own self-realization increases. We increasingly see ourselves in others, and others in ourselves. This self is ex-

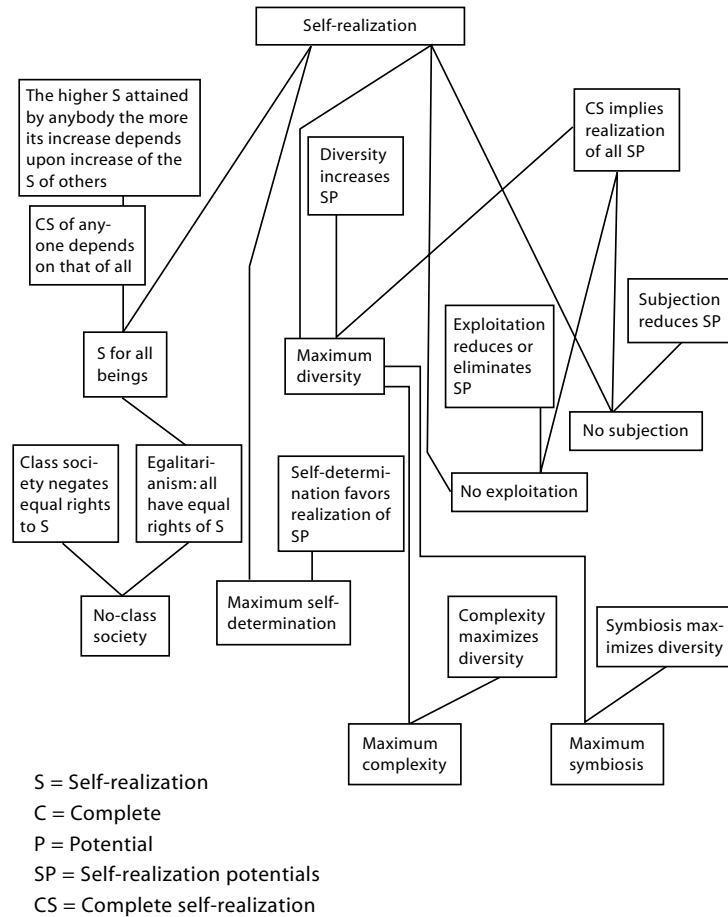


Figure 1. Ecosophy T

tended and deepened as a natural process of the realization of its potentialities in others.

Universalizing, we can derive the norm “Self-realization for every being!” From “Diversity!” and a hypothesis that maximum diversity implies a maximum of symbiosis is derived the norm “Maximum symbiosis!” Further, we work for life conditions such that there is a minimum of coercion in the life of others. And so on!⁹

A philosophy as a worldview inevitably has implications in practical situations. Therefore, Ecosophy T moves on without apology to concrete questions of lifestyle. These will obviously show great variation because of differences in *hypotheses* about the world in which each of us lives and in the “factual” statements about the concrete situations in which we make decisions. I shall limit myself to a couple of areas in which my “style” of thinking and behaving seems somewhat strange to friends and others who know a little about my philosophy. First, I exhibit a somewhat extreme appreciation of diversity: a positive appreciation of the existence of styles and behaviors that I personally detest or find nonsensical (but not clearly incompatible with symbiosis); enthusiasm for “the mere” diversity of species or varieties within a genus of plants or animals; support, as the head of a department of philosophy, of doctoral theses completely at odds with my own inclinations, with only the requirement that the authors are able to understand fairly adequately some basic features of the kind of philosophy I myself feel at home with; and a combination of *seemingly* incompatible interests and behaviors, which makes for an increase of subcultures within industrial states and might to some extent help future cultural diversity. So much about “Diversity!”

Second, I have a somewhat extreme appreciation of what Kant calls beautiful actions (good actions based on inclination), in contrast to dutiful ones. The choice of the formulation “Self-realization!” is in part motivated by the belief that maturity in human beings can be measured along a scale from selfishness to a broadening and deepening of the self, rather than measures of dutiful altruism. I see joyful sharing and caring as a natural process (which, I regret, is somewhat retarded in myself).

Third, I believe that many-sided, high-level Self-realization is more easily reached through a “spartan” lifestyle than through the material standard of average citizens of industrial states.

The simple formulations of the deep ecology platform and Ecosophy T are not meant primarily to be used among philosophers, but in dialogues with “the experts.” When I wrote to them personally, asking whether they accept the eight points of the platform, many answered positively in relation to most or all the points—even top people in ministries of oil and energy! It is, however, still an open question to what extent they

are willing to let their written answers be widely published. It is also an open question to what extent they try to influence their colleagues who use only shallow argumentation. The main conclusion is moderately encouraging: there is a philosophy of the human/nature relationship widely accepted among established experts responsible for environmental decisions, and this philosophy requires a pervasive, substantial change of current policies—in favor of our “living” planet, and not only for short-sighted human interests.

The Deep Ecology “Eight Points” Revisited

Ten years ago it was fairly common to express astonishment that people with very different philosophical and religious backgrounds could be supporters of the deep ecology movement. What did they have in common? Or, how could they have anything in common? How would they define what deep ecology really is?

The first question seemed to me the most important. It was important to emphasize that supporters of the deep ecology movement need not hold basic philosophical or religious premises in common. They should have, and use, such premises, but the premises would not all be of the same kind because of cultural differences. The deeper the differences, the better, because of the value of deep differences in cultural backgrounds.

At that time (in the early 1980s) it was important to point to views held in common. There were at least two ways in which things were clearly held in common: personal sorrow or despair was felt when environmental battles ended in defeat, and there was a corresponding feeling of joy when at least a partial victory was achieved. There was also a high degree of agreement about the need for, and acceptance of, “direct actions” of some sort, and (what to me was a great thing) a clear consciousness about the limitations of the means to be used: nonviolence. Typically, supporters had been active in the peace movement before becoming environmental activists. Reference to nonviolence should perhaps be included in the Eight Points.

This article was reprinted with permission from *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions (Boston: Shambhala Publications, Inc., 1995), 213–21.

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

Less clearly, the supporters had some *fairly general and abstract* views in common, or nearly in common. What the critics and doubters needed was a not too complex and detailed survey of such views, which should be put forth tentatively. The formulation of the Eight Points was the result. That these short points were called principles, or expressions of a "platform," was perhaps unfortunate. A longer name for the Eight Points is indispensable, for example: "a set of fairly general and abstract statements that seem to be accepted by nearly all supporters of the deep ecology movement."

The term *seem* is included because what is meant is not only acceptance of the Eight Points as an articulate answer to a question, but acceptance in a wider, somewhat vague sense, as in a sentence such as "Mr. A accepted Mr. B's leadership," or "In the ashram they accepted the situation that snakes and scorpions were permitted to stay in their sleeping quarters during the night." The chance might be that an ashram member, if asked, would object to allowing certain snakes to come into the room, but so far there have been no such members. It has been encouraging how people say, "Yes, of course I accept those Eight Points, but so far I have not had the words to express my attitudes." What the Eight Points have offered is mainly putting words to views that people have "always" had but have not expressed, at least not in public.

The reception of the set of eight formulations by supporters has been encouraging: from this I conclude that there is a broad similarity of views on the fairly general and abstract level. A further conclusion: the usefulness of the Eight Points as a convenient reference point suggests that alternative analogous sets should be developed. It is unnatural that only one formulation could be convenient.

The Eight Points are, of course, not intended to function as a definition of the deep ecology movement: neither as a rule-given definition of the term, nor as a plain description of how the expression "deep ecology movement" is actually used, nor as an expression of the essence of the deep ecology movement. I do not know of any satisfactory definitions at the dictionary level. For example, I do not think a dictionary entry like the following is very helpful: "deep ecology movement: a movement within environmentalism that is activist, ecocentric rather than anthropocentric, and based on nonviolent philosophical or religious views."

Looking back, I am glad to have the opportunity to make some comments about the Eight Point list, not all of which are critical:

1. It has been suggested that the Eight Points should include reference to the "all things hang together" theme. The best way of including this seems to me to be the formulation of Fritjof Capra. He suggests the following alternative formulation of point 2: "The fundamental interdependence, richness, and diversity contribute to the flourishing of human and nonhuman life on Earth."

This alternative formulation is important to me mainly because the three factors mentioned are presented as instrumental, not as values in themselves. Such a presentation does not, of course, rule out the inherent value of richness and diversity, but I have thought that inherent value must be declared explicitly in the formulation of that point. Why "must"? Conclusion: the suggestion by Capra adds to *the set of alternative formulations* of the Eight Points. (I myself have not found it possible to stick to only one way of formulating the points.)

Of course, to "hang together" as a kind of interdependence may be taken by some as a kind of threat. One hears such warnings: Remember that human beings are *unfortunately* dependent upon the health of the ecosystems. *Therefore* respect nature or you invite disaster!

In short, I have so far not found sufficient reason to include in the Eight Points a reference to the "all things hang together" theme. It should not be necessary to add that "nature mysticism" (the ultimate unity of all living beings) and similar level-1 views have no place among views that supporters may have *in common*. Views about, and feelings of, the intimacy and "hanging together" of everything may, of course, differ in terms of degree of tightness. The interdependence referred to in the alternative formulation is of the kind that supporters do, in fact, talk about.¹

I find it regrettable, however, that J. Baird Callicott, a supporter of the deep ecology movement as far as I can understand, believes that some kind of nature mysticism is *implied* in being a deep ecology supporter. Callicott (1993: 330) writes that "indeed [deep ecologists] argue that ecology teaches us that the whole of nature is the true Self." This is a strange formulation. Supporters of the movement have total views inspired in part by reactions to the ecological crisis. Such total views I have called ecosophies—I call my own Ecosophy T. Fortunately, other supporters have different ecosophies.

(One thing we have in common is that the articulation of our views is, and must be, fragmentary.) In the premise-conclusion systematization of Ecosophy T, "Self-Realization!" is designated as the one ultimate premise. Some feel at home with this, others do not. The Eight Points could not possibly contain that norm.

I do not feel bad when Professor Callicott mistakenly seems to identify my opinions with those of Mahatma Gandhi. He quotes from a section of my "Self-realization" paper (1986 [chapter 45 of this volume]), which I introduce by writing: "I do not *defend* all the views presented here: rather I primarily wish to inform you about them." Later in the section I write: "Gandhi says: 'I believe in *advaita* (non-duality). I believe in the essential unity of man and, for that matter, all that lives. Therefore I believe that if one man gains spirituality, the whole world gains with him and, if one man fails, the whole world fails to that extent.'" The quotation from Gandhi reminds me of his (and my) belief in the individual. It shook the world when, as the accused before the judge, Gandhi uttered, "The individual is the supreme concern."

Professor Callicott also writes that "scientific ecology will not support the claim that the self is in reality the Self, that the individual is identical with the world." I might join him in saying that support of that claim could mean the end of scientific ecology. At any rate, no one has, to my knowledge, found that the Eight Points imply a kind of nature mysticism, although many supporters show varying degrees of affinity with it.

Points 3 and 8 are the ones that most clearly belong to a (normative) ethic covering actions related to the ecological crisis. An *announcement* of an obligation is made in point 8, and an ethical *prohibition* is expressed in point 3. Both belong as part of an ethic of vast scope covering our relations to nonhuman beings. The search for an environmental ethic is, as I see it, a laudable undertaking from the point of view of the deep ecology movement. Some supporters would disagree, I suppose, but I am not sure that I know of any. Professor Callicott writes, "Deep ecology . . . rejects ethics outright" (1993: 325), but his four supporting quotations (three from texts by Warwick Fox and one from me) do not justify his claim. Like many others, I distinguish between an ethic as a normative system (in Professor Callicott's terminology "a conceptual system"; *ibid.*, p. 338) and acts of *moralizing*—that is, when one individual or group admonishes others to follow certain moral precepts. "We certainly need to hear

about our ethical shortcomings," I write in the article quoted by Callicott, but I have emphasized, and continue to emphasize, the rather limited motivational force of moralizing. The Kantian distinction between "beautiful acts" and "moral acts" is convenient here (see Naess 1993). Beautiful acts are compared with policies facilitating attitude changes in the direction of ecologically responsible behavior. Moreover, Warwick Fox certainly does not hold, as Callicott seems to suggest, that ethical norms having the structure of points 3 and 8 involve "narrow, atomistic, or particle-like conceptions of self."

2. In recent years considerable efforts have been made to distinguish two concepts; one is expressed by the term *intrinsic value* and the other by the term *inherent value* or *inherent worth*. What I intend to express by use of the term *intrinsic value* in the Eight Points is perhaps better conveyed by the term *inherent value*.

Some critics tell me that I must enter the professional philosophical debate about what exactly might be meant by terms like *intrinsic value*, *inherent value*, and *value in itself* (which I use in my book *Ecology, Community and Lifestyle* [1989]), but even in my comments on the Eight Points (which consist of about 400 words), entering this discussion would be misplaced. The Eight Points formulations admit of various interpretations, but they are interpretations with reasonably small differences. Although the level of vagueness and ambiguity must be within tolerable limits, professionalism would undermine the aim of the Eight Points.

3. I try in my ecosophy to be consistent in my view that individual beings, and only individual beings, can have inherent value, and not classes of individuals as such. (The term *intellectualis amor* in Spinoza's *Ethics* I likewise take to be the loving understanding of individuals.) Point 2 (which discusses diversity) makes this difficult unless landscapes, or the whole Earth, are taken to be individual beings, not classes of individual beings. If taken otherwise, I would be attributing value to some kind of mere multiplicity. I do not attach inherent value to species or families (as classes or sets of beings with more than one individual or element), but to diversity itself. From the "diversity norm," plus various hypotheses, I derive norms of priorities: the defense, for example, of threatened orders or families should have higher priority than that of species or subspecies, if there are no special reasons not to attach higher priorities to

the latter (for example, to families of insects as compared to species of mammals).

In the brief comments on the third of the Eight Points, it is not made sufficiently clear that the use of the expression "no right to" is an everyday use of *right*, as in "You have no right to eat your little sister's food!" It is not meant to be identical in meaning with "You ought not to eat. . . ." It does not imply an affirmative answer to the question of the existence of the "rights of man" or the "rights of animals." Because of vast controversies in professional philosophy about the concept of "rights," it may be unwise to use the expression "no right to" in point 3. I am not convinced about that, and the use of it opens up the good question "Why can't animals have rights?" If the answer is "Because they can have no obligations," this leads to the question "What about babies? the mentally ill?" Such discussions tend to lead people in the direction of softening their rigid views about human beings existing apart from nonhuman nature.

Concerning the term *vital needs*, several comments are readily at hand. What you *need* in your life is a small fraction of what you are led to desire in the rich countries, whereas in regions of desperate poverty the vital needs of the majority of people go unsatisfied regardless of whether or not they reduce the richness and diversity of life-forms.

4. In the 1984 formulation, population was discussed in point 5. The contents of points 4 and 5 suggest that, in terms of logical order, the population issue should be discussed in point 4 rather than point 5.

5. Many supporters of the deep ecology movement believe that a reduction in human population would, of course, be a great gain both for humanity and for nonhuman life, but they do not see how it could happen within the scope of a decent ethics. Some are willing to see reduction occur within a couple of centuries. What seems a little odd to me is that, at the same time, they can envision population stabilization (zero growth) occurring (without "nature taking over" in the sense of catastrophic wars or massive famines, or both). If transition to zero growth is thought to be practicable, why could there not also occur a population reduction of, say, one-quarter of a percent per year? Within several centuries that would make a lot of difference. A firm acceptance of the population-reduction point does not oblige one to speculate concerning how great a reduction one has in mind. That is a different question.

I seriously think that the Eight Points (or corresponding sets of points provided by other supporters) should be acceptable without hesitation to nearly all supporters of the deep ecology movement. I have found, therefore, that point 4 *might* be "softened," perhaps in the direction of formulations like the following: "It would be better for human beings to be fewer, and much better for nonhuman life-forms."

If the "decrease" or "reduction" terminology is retained in point 4, then comments should include these two points: The process of a slow but adequate reduction naturally will take more than a couple of centuries. The situation in some rich countries, where zero growth has been reached (or nearly reached), makes it important for governments to declare that nothing will be done to *counteract* a process of reduction in the next century. Those economists (and others) will be consulted who can show how a satisfactory economic situation can be maintained during the difficult transition period.

In a process of slow decrease of the population, there will be a *slight* increase in the percentage of people over the age of retirement. This could be partly alleviated by motivating a slight increase in the age of retirement. The amount of capital per person will increase slightly, as well as the availability of resources in general. The chances of significant unemployment will also be slightly reduced, and so on.

An adequate discussion of the economics of population reduction cannot be the aim of my remarks here. Both strategically and tactically, it is of central importance, in my view, that more people outside the economically richest countries realize that population reduction is compatible with maintaining, or increasing, the overall quality of life. Point 7 is meant to be relevant here. One cannot expect people in the poorer countries to believe in this point if very few people in the richest countries do.

The argument is often heard in rich countries that many sons are necessary in poor countries to provide security for one's old age. Actually, a substantial minority of people in the poor countries do not think this way (if four sons need sixteen sons, who need sixty-four, what happens then?).

Clearly, many people do not consider it possible that adults can have a close, warm relationship with small children they have not themselves produced. In many cultures, though, architecture and the use of space make it possible for small children to walk around safely and to be taken care of by

neighbors and friends. In such situations, young parents do not have to worry when they go to work, and the children might have close relationships, and even stay overnight, with “uncles” and “aunts.” Adults who wish to have small children around them, and like to spend a lot of time with them, are highly esteemed and form an indispensable part of the community. Under such conditions, one may have closer and *more durable* relations with small children than do parents in rich countries who have produced as many as four or five children.

I have used so much space talking about the population issue because I think that, in some countries, now is the time to reconsider the design of cities, and policies of spacing, so as to anticipate a slow decrease of population that may begin in the near future in some countries—say, within a couple of generations, or even sooner.

6. The deep ecology terminology was introduced, during the late 1960s, in a highly politicized environment. “Every question is a political question” was a slogan you might have heard repeated every other day in Europe during this period. The very able students of neo-Marxism and the Frankfurt School knew very well that slogans and repetitions are indispensable in a social movement. When the Green movement suddenly surfaced in European cities (in Norway with the astonishing slogan “Green Grass!”), it was laudable, in my view, that activism and the necessity of social and political change was made a central point. Economics, technology, and politics must be a subject of teaching and discussion in any “environmental” movement. The combination of points 6 and 8 is supposed to express the seriousness of this insight. That does not mean, of course, that all supporters of deep ecology must specialize in party politics or related activities.

Supporters of the deep ecology movement naturally work within the horizon of the “alternative future” movements. More specifically, they work with supporters of the Green movement (which may roughly be said to require of a society that it has largely solved the peace, social justice, and ecological sustainability problems). The intimate cooperation and mutual respect among people (whose *activism* is quite naturally focused on one, but not all, of these three problem areas) is excellent, and does not exclude strong utterances in favor of their own specialties. Such utterances strengthen our motivation.

Because the main work of supporters of the deep ecology movement concerns only a part of what is required of a Green society, there can be no such thing as a "deep ecology society." The deep ecological requirement of "wide" ecological sustainability (protecting the full richness and diversity of life on Earth), however, limits the kinds of Green societies that would be acceptable. Because (in accordance with points 1 and 2) deep ecologists view the intrinsic value, respect for, and support of deep cultural differences on a par with attitudes toward richness and diversity of nonhuman life-forms, any social or political trends of the fascist or Nazi kind run counter to the requirement of full ecological sustainability.

In Germany, some people become worried when they hear about deep ecology: "Sacredness of the soil? I remember Himmler, the terrible Himmler, talking and talking about that!" But acquaintance with the movement dispels the worries.

Critics have deplored the lack of an authoritative deep ecology blueprint for a society satisfying the requirements of the Eight Points—they are apparently looking for texts like Edward Goldsmith's *Blueprint for Survival* (1972), but updated. More or less broad visions of future green societies are expressed within the Green movement, of which the deep ecology movement is only a part. Visions are needed, but scarcely blueprints.

Personally, I envision deep cultural differences existing among green societies in different parts of the world. Valuable suggestions have been made since the 1960s, but they do not so far show, in my opinion, how diversity of thinking, acting, and cultural priorities may be normalized among future societies that satisfy the three requirements of peace, social justice, and ecological sustainability.

In any case, point 6 is not the place to go into specific requirements of social change. A vague, general suggestion along these lines is made in point 7, but I am not sure that it is a good idea to have even a point like that. It only vaguely suggests something about the general direction of the political changes needed. At any rate, it has been a great satisfaction to note that no supporters have indicated that I overrate the importance of political change as a necessary condition of surmounting the ecological crisis.

There are supporters who think that the formulation of the Eight Points has been overrated, that they do not deserve the position of importance they are sometimes accorded. If the points were taken to express *the*

THE LONG-RANGE DEEP ECOLOGY MOVEMENT

philosophy characteristic of the deep ecology movement, or even *the* principles of deep ecology, that would be, in a sense, a grave misinterpretation of those approximately 200 words used to express those points. Maybe it should be repeated more often that they *only* present an attempt to formulate what *might be* accepted by the great majority of the supporters of the movement at a fairly general and abstract level. Different sets of formulations are needed to express something similar, but in the language of supporters in the nonindustrialized parts of the world. As formulated, the Eight Points are in a sense provincial—adapted primarily to discussions among formally well educated people in rich countries.

When introducing the Eight Points in nonindustrialized societies, I use very different formulations—sometimes, for example, not speaking about the Earth at all—and I limit the intended validity of point 7 to the rich countries. It is a curious phenomenon that some people in the West think that poor people don't fight for the preservation of nonhuman beings for their own sake. In 1973 the families of a poor village in Nepal voted 46 to 0 to send their headman with a petition to *protect* their sacred mountain Tseringma (Gauri Shankar) from tourism—forgoing the vast income they might have gained. (Incidentally, the name Tseringma means “the mother of the good long life.”) Without having seen such phenomena, I would not talk about the broad *international* deep ecology movement.

In conclusion, I would like to ask forbearance for talking so much about such a small set of formulations, and only because they have so far been helpful in fostering feelings of being closely together in an immense task of supreme value.

Beautiful Action: Its Function in the Ecological Crisis

We have, most of us, a stupid reluctance to learn from philosophers who belong to “trends” or “schools” that we find lead us astray. For me, the so-called critical philosophy of Kant and Kantians belongs to such a set of trends. I say *so-called* critical. Most trend-setting philosophers have been fiercely critical of other trends, but only Kant has been fortunate enough to influence historians in the last century to such an amazing degree that in their surveys they call Kant’s philosophy critical and Spinoza’s dogmatic. This is a rather arbitrary distinction. Already in the introduction to his *Critique of Pure Reason* (1963) Kant makes assumptions with far-reaching consequences without any attempt to justify them. They may well be said to be “uncritical” and “dogmatic,” at least for some plausible and important interpretations of these terms. Both Spinoza and Kant were firm believers in fundamental ideas that they do not justify in their writings. To compare their levels of criticalness in a timeless, absolute sense presupposes that one has a third system that must be accepted uncritically. Or perhaps we don’t need that? Who knows?

In spite of Kant’s—in my opinion unfortunate—influence, in some ways his works are and will continue to be a major source of inspiration. In what follows I borrow his distinction between moral and beautiful actions. I foresee a bright future for this terminology. It offers a fairly new perspective on our actions within the realm of radical environmentalism, or more specifically within the deep ecology movement.

The distinction was introduced by Kant in a work published in 1759,

This article was reprinted with permission from *Environmental Values* (England: The White Horse Press) (Spring 1993): 67–71.

Versuch einiger Betrachtungen über den Optimismus (An attempt at some reflections on optimism), written in the period that uncritically is called his uncritical period. The distinction has been neglected by historians.

According to the terminology of 1759 an act deserves the name *moral act* if it is solely motivated by respect for the moral law: you do it simply because it is your duty; there is no other motive. Presumably a factual mistake would not spoil the beauty of an action—if you have done your duty *trying* to find out the facts of the case.

Suppose you do your duty—you perform the action that the moral law prescribes—but not *just* because of respect for the moral law. You perform the act because you are inclined to act like that, or at least partly because you have the inclination. It “feels natural” to do it. In that case Kant calls the act *beautiful*. It is a moral not an immoral act. An immoral act is one that conflicts with the moral law. The beautiful act is in Kant’s view a morally complete act because it is benevolent. Benevolent action expands our love to embrace the whole of life. It completes us and perfects us (Kant 1992: 78ff.).

It is not Kant’s habit in his main works to offer examples, but in his *Groundwork of the Metaphysics of Morals* (1949) he offers an interesting one. It is one’s duty, he says, to strive to keep alive, and there is a spontaneous inclination to do that. If you act more or less from the inclination to stay alive, the actions are not morally significant. Kant then paints a picture of a thoroughly unhappy human being who consistently desires to die but continues to try to stay alive, motivated solely by duty. This person acts in a morally right way according to Kant. Today, many people do not think it is always a duty to try to stay alive. In special cases, yes, notably because of the unhappiness or destitution of one’s own children and spouse. The temptation to follow inclination and make an end is resisted solely because one conceives it a duty to continue. Here the term *beautiful act* seems to me to be appropriate. One may in a philosophical seminar differ about the exact relation between respect for the moral law, respect for a moral duty, and respect for a duty, but the conclusions and proposals in what follows do not seem to be gravely affected by this outcome.

Presumably Kant would not deny that it may make people glad when they do their duty. The inclination may not be there, they may find it

painful or even cruel, as in a war, to do it, but they are glad *that* they resist the temptation *not* to do it. There is a conflict, a situation involving stress, we might say today. When we act beautifully no conflict of feelings is involved. It is above all characteristic of beautiful acts “that they display facility and appear to be accomplished without painful toil.” Incidentally, Kant entertained the opinion that women, more often than men, act beautifully, from compassion and goodheartedness. Men’s morality has the form of nobility, not beauty, but nobility is “extremely rare.”

So much for the Kantian distinction itself. I now turn to its application in countries manifesting an increase of ecological unsustainability and large-scale destruction of the habitats of other living beings.

The individuals and institutions trying to influence ecologically highly relevant actions in the right direction manifest roughly three different strategies: appeal to the *usefulness* of ecologically positive actions, emphasis on *moral obligations*, and inducement to develop certain attitudes—*inclinations* in Kantian terminology.

Recently there has been in Norway and other countries an upsurge of interest in environmental ethics at the governmental level. It is accepted that there is a moral aspect, that both individuals and their governments have a *duty* or *obligation* to act in ecologically responsible ways. The moral appeal is gaining ground among policy makers. Sums of a different order than before have been earmarked for ethical studies as a follow-up to the Brundtland Report (United Nations 1987). No similar sums are available, or will in the near future be available, for the study of attitudes toward nature and the conditions favorable to changes in the direction of ecologically responsible actions on every level, including the governmental. These changes may in Kantian terminology be called changes in the direction of a greater inclination to act in ecologically responsible ways. An act in the sphere of efforts to overcome the ecological crisis is a moral act if, and only if, it is motivated by the call to do our duty. Then there are acts with ecologically beneficial results that “display facility and appear to be accomplished without painful toil”—they are *beautiful* acts within the realm of ethically and ecologically relevant contexts. Again incidentally: insofar as we rely on Kant’s judgment, we should expect women to be the main driving force in fostering ecologically relevant beautiful acts.

A very common comment by people hearing a description of deep ecology for the first time is “But I’ve always thought this. I just did not have words for it.” They presumably had acted beautifully, without toil, and without words! It is unnecessary to add that the information “This means you have always acted beautifully!” might have made them proud and eager to continue.

Obviously, there is always the possibility that a beautiful act does not have the intended short- or long-range consequences that were intended. This applies in principle, according to Kant, to every action. When a policy is chosen on the basis of its usefulness or on the basis of morality, there is also this fundamental uncertainty. During the first great green wave (the late 1960s and early 1970s), millions developed the habit of turning off the electric lights when they served no immediate purpose. To leave them burning was difficult, unnatural. Then came sceptics repeating that the useful life of a lightbulb would be severely shortened if turned off and on “too much,” and to make a new bulb would consume much energy and resources. Many felt frustrated because they saw the uncertainty of both strategies: the calculation of the basis of utility versus reliance on an acquired natural inclination.

People badly informed *may* cause small ecological disasters, making false judgments of a factual character. Today more than ever it is one of our duties to keep informed; the better we are informed, the better our basis for predicting consequences.

Acting from inclination is superior to acting from duty. This vague announcement needs comment. First, acting from duty requires conscious analysis of the situation and does not exclude acting in spite of strong disinclination. The sense of duty is generally not very strong, and because conscious analysis is required, or often required, the ways of avoiding unpleasantness through talk are considerable. “It *seems* it is now my duty to do such and such, but close analysis shows that I really do not need to do such and such.”

If it is urgent to have people behave in a certain way in a particular situation, the question “Are there any ways we could make them *inclined* to act (energetically and nonviolently) in that way?” has priority. There are not many noble heroes, and if people are influenced to act from inclination, a stable habit is formed, whereas the moral act, at least as it seems to be con-

ceived by Kant, normally does not form a habit. If it forms a habit, it starts feeling natural, and an inclination occurs. In short, the moral act glides into a beautiful act. In the terminology of social science, norms are *internalized*. Perhaps Kant has underestimated this development. It increases the importance of appeals to moral capacity, but it does not reduce the importance of processes that tend to induce inclination directly, internalization with verbalized normative appeals: utterances like “See how nice this animal (flower, landscape, . . .) is” or “I wish I could help these people who are forced to live in this polluted area; such work would make me happy!” There are appeals through body language that induce joy and a process of identification. Such processes make up the nonreflective imitation and adaptation to society of children.

In his monumental *Kritik der praktischen Vernunft* (Critique of practical reason), Kant goes deeper, but I shall not bring this work into our discussion. We have such and such a special duty *in* such and such kinds of situations. Mostly the adequate reason in answer to the question “Why do we have that duty in that kind of situation?” is in terms of higher-order moral norms combined with a relevant classification of the kind of situation at hand. Duties are *relational*, a term better suited than *relative*. Intense, protracted questioning more or less inevitably leads in the direction of codified systems of normative ethics. It has been done most thoroughly by the Catholic Church in the more stable Middle Ages. Here it is only relevant to remind us of the moral *corrigibility* of any concrete announcement of a duty in a concrete situation, and the analogous need for change in the direction of a beautiful action. Hypotheses about the “facts” of the situation are involved.

What are the main ways to promote more and more consistently beautiful actions in the fight for ecological sustainability? This is a battle that has to be fought by individuals in their private capacity and by all sorts of institutions in the wide sense.

It is easiest to start with educational institutions in the materially rich countries—from kindergartens to postgraduate schools. In the kindergartens, the body language of the respected people taking care of the children is decisive. The care and respect manifested in every interaction with every living being has immediate and strong effect. One of the necessary

conditions is the presence of such beings. In Tokyo and many other places we find kindergartens (children gardens!) practically without any noticeable nonhuman life-forms except some occasional flies, which are treated as intruders. Much of the space is occupied by various mechanical contraptions.

In elementary schools, knowledge is often taken to be as important as appreciation, insight, feelings of nearness and of wonder. (Children are conceived as beings who must be useful, successful, and well entertained.) The socialization process is important, but unhappily the “environment” children are mostly adapted to today is the extremely poor communities of human beings, dogs and cats, and perhaps some spectacular, big plants, roses, and so on. The teachers are not expected to manifest love and respect for life, nor to reveal the difference between life quality and standard of living in their interactions with the children.

At the other end of the formal teaching, the postgraduate seminars, even when life-forms are studied, the style in which they are taught is from the viewpoint of an observer, not a participant. Field trips are rarely made in silence such that students can hear clearly what trees or tiny animals and plants are telling them. The focus on interaction with fellow students is permitted to go on as if they were alone and not together with a myriad of beings. Nor are they taught to express what they *really* experience and what gestalts they participate in, leaving subject-object relations out. They may obtain their doctorates without ever *sensing* what they are talking about, and if they have gained cognition (not only knowledge) of the third kind (Spinoza), they are not stimulated to consider how to *inspire* others, how to *lead* them without many words to acquire the third kind, the understanding love and loving understanding (*intellectualis amor* = *amor intellectualis*).

When we proceed to the subject of institutions, the social and political framework of the individual, practically nothing is done to protect the insights a minority has gained and to stimulate further gains. The United Nations *World Charter for Nature* (1982) is not taken seriously when it proclaims the intrinsic value of Nature independent of narrow usefulness for human beings.

What about the sphere of policies for fisheries? Is the Kantian distinction relevant? The leaders of organized labor and the politicians of the labor party—for example, in Norway—know that previous policies have been disastrous for the richness and diversity of fish in vast areas. They

know they have to propose exasperatingly small quotas. This perpetuates high unemployment. Their duty is clear, but the unemployed fishermen are furious. The political life of the leaders is in this situation precarious. The temptation to propose somewhat bigger quotas is normally there, but for the few who have internalized ecological norms, there is no temptation whatsoever. To propose unpopular regulations based on ecological considerations is the only, and the completely natural, thing to do. Of course, they are risking their political life. But with joy? Certainly not. With inner satisfaction, yes. As a moral act in the Kantian sense? Perhaps.

Richness and diversity *must* be increased. This goal is so evident that to say it to oneself in words is superfluous. A labor party minister of fisheries resigned recently after having been able to establish strict quotas. She presumably had had enough unpleasantness from the furious fishermen who had lost their jobs. Had she acted beautifully? I think the Kantian distinction works better for people who do not have the kind of power and responsibility of leaders in Western democracies.

In short, there is little understanding that fostering *inclination* is essential in every aspect of socialization and acculturation and therefore also in the global ecological crisis. Moralizing is too narrow, too patronizing, and too open to the question “Who are *you*? What is the relation of your preaching and your life?” An invitation to act beautifully, to show beautiful acts rather than talk about them, to organize society with all this in mind, may recognize and acclaim such acts, and be a decisive factor that at last will decrease the unsustainability. “Tell me about your beautiful acts today! Do the authorities encourage such acts?”

What I have offered for reflection is a small variation in our perspective, looking at what goes on in terms of a Kantian distinction. Thank you, Immanuel.

Deep Ecology and Lifestyle

It is perfectly meaningful to talk about the lifestyle characteristic of the deep ecology movement. One must only avoid thinking that it is, or should be, a definite, definable, fully coherent way of life, clearly different from all others.

The deep ecology movement includes a great number of definite, more or less easily definable *tendencies* and *attitudes* that show themselves in action. Some supporters of the movement seem to reveal many of the attitudes, and no tendencies that are in blatant opposition. One should not, however, look for “complete consistency,” whatever that might mean. It would be practically impossible to formulate criteria for a consistent deep ecological lifestyle. Every formulation would have to be vague and highly dependent on terminological idiosyncrasies.

It is agreed that it is important to clarify ecological consciousness. There is, however, always the danger that consciousness only fragmentarily colors action. In Kierkegaard’s words, a philosopher may build a castle but himself *live* in its doghouse.

I have found it most fruitful simply to list tendencies and attitudes characteristic of the deep ecology movement. I have focused on Scandinavia and have freely indulged my own terminological preferences. The order here adopted is not intended to reveal differences of importance, nor does it worry me that some items are overlapping, or that many are related as genus to species, or as family to genus.

This article was reprinted with permission from *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions (Boston: Shambhala Publications, Inc., 1995): 259–61. It was originally published in *The Paradox of Environmentalism*, edited by Neil Evernden (Ontario: Faculty of Environmental Studies, New York University, 1984).

VALUES, LIFESTYLE, AND SUSTAINABILITY

1. Use of simple means. Avoidance of unnecessary, complicated instruments and other sorts of means.
2. Choice of activities most directly serving values in themselves and having intrinsic value. Avoidance of activities that are merely auxiliary, having no intrinsic value or being many stages away from fundamental goals.
3. Anticonsumerism. This negative attitude follows from (1) and (2).
4. Effort to maintain and increase the sensitivity and appreciation of goods of which there is enough for all to enjoy.
5. Absence or low degree of *novophili*—the love of what is new merely because it is new.
6. Effort to dwell in situations of intrinsic value and to act rather than be busy.
7. Appreciation of ethnic and cultural differences among people, not regarding such differences as threats.
8. Concern about the situation of the Third and Fourth worlds and attempt to avoid a standard of living too much different from and higher than that of the needy (global solidarity of lifestyle).
9. Appreciation of lifestyles that are universalizable and are not blatantly impossible to sustain without injustice toward fellow human beings or other species.
10. Preference for depth and richness of experience rather than intensity.
11. Appreciation for and, when possible, choice of meaningful work rather than just making a living.
12. Effort to lead a complex, not a complicated life, trying to realize as many aspects of positive experiences as possible within each time interval.
13. Cultivation of life in community (*Gemeinschaft*) rather than in society (*Gesellschaft*).
14. Appreciation of or participation in primary production—small-scale agriculture, forestry, fishing.
15. Effort to satisfy vital needs rather than desires.

There are also tendencies more obviously reflecting the specific tenets of the deep ecology movement:

16. Attempts to live in nature rather than just visiting beautiful places. Avoidance of tourism (but occasionally making use of tourist facilities).
17. Living “light and traceless” when in vulnerable nature.
18. Tendency to appreciate all life-forms rather than merely those considered beautiful, remarkable, or narrowly useful.
19. Rejection of the use of life-forms merely as means. Consciousness of their intrinsic value and dignity even when using them as resources.
20. In conflicts between the interests of dogs and cats (and other pets) and wild species, a tendency to protect the latter.
21. Effort to protect local ecosystems, not just individual life-forms. Seeing one’s own community as a part of ecosystems.
22. Objection to excessive interference in nature as unnecessary, unreasonable, and disrespectful. Condemnation of such interference—without condemning the people responsible for the interference—as insolent, atrocious, outrageous, and criminal.
23. Commitment to acting resolutely and without cowardice in conflicts while remaining nonviolent in words and deeds.
24. Participation in or support of nonviolent direct action when other ways of action fail.
25. Kinds and degrees of vegetarianism.

There are many publicly available sources for the study of deep ecological lifestyles, such as naturalists’ and alternative lifestyle periodicals. In Norway the periodical published by *The Future in Our Hands* deals extensively with the problems of youth who seek to form new lifestyle circles of friends. Perhaps more important is the direct contact with people achieved in direct actions.

In recent years the practical possibilities of a highly developed deep ecological lifestyle have been reduced in Europe by economic policies that ruin small-scale enterprises. There is also a dominant tendency to standardize and regulate education and conditions of work. In short, the structuring of society is more detailed, leaving less room for subcultural independence. On the other hand, the reaction against this trend is strong. It would have a greater impact if those who support the deep ecology movement were more

VALUES, LIFESTYLE, AND SUSTAINABILITY

active politically. There seems to be a twenty-sixth tendency, however: to find politics boring or distasteful.

In the 1970s when the movement was new and exciting, there was a tendency to be dogmatic: One *should* use bicycles; one *should not* go by air. Bears under no circumstances ought to be shot. Hunting, even for ecological reasons, should be avoided. One should not visit nonindustrial cultures because it would tend to weaken them. One should avoid every sport requiring mechanical means. Agriculture ought to be biodynamic; no poisons should be used. The list could go on. Today there is more wisdom, fewer rigid rules, and the old Indian prayer is taken more seriously: "Great Spirit, grant that I may not criticize my neighbor until I have walked a mile in his moccasins."

Expert Views on the Inherent Value of Nature

What Is the Philosophical Position of Those Who Influence Environmental Decisions?

Are Norwegians more favorably or less favorably disposed toward the environment than the policies enacted by the Norwegian government suggest?

The debate among the political parties has presupposed for generations that the positions adopted on various issues may be located on an axis extending from left to right. The positions in the environmental debate cut across this axis. Therefore, we must picture this debate in at least two dimensions. There are good reasons for locating the positions on environmental issues within a triangle delimited by red, blue, and green sides. The green side has not, however, received much attention by the political parties. It is therefore not unreasonable to assume that Norwegians today may be more favorably disposed toward the environment than party politics suggest. We have not had sound reasons for moving beyond mere suspicion on this point until the 1980s. However, unless favorable dispositions toward the environment are expressed in entirely different ways in Norway than they are in the United States, England, and West Germany, we may today on a firm basis assume that *Norwegian policies are more hostile toward the environment than public opinion warrants*. Our highly praised democracy seems to fall short on this issue.

One investigation of public opinion in the United States, England, and

This article was originally published as "Ekspertenes syn på naturens egenverdi" (Trondheim, Norway: Tapir Forlag, 1987). It was translated from the Norwegian by Iver Ørstavik.

West Germany provides particularly strong reasons for the presumption that most people want policies more protective of the environment than those supported by certain elites—for example, union leaders, elected and appointed officials, and business executives. This poll was undertaken in 1982 and appeared in Lester W. Milbrath's *Environmentalists: Vanguard for a New Society* (1984). The questionnaire employed in the poll contained a large number of questions about relations between human beings and nature. Most of the questions addressed relatively specific and controversial issues. The responses were surprisingly consistent with positions adopted by the more radical branch of the environmental movement.

One of the most striking features of political arguments used to decide for or against intervention in free natural processes is that *respect for nature in itself* is not mentioned. What is considered almost exclusively is the narrow utility value for human beings that may result from such intervention. This has influenced environmental activists to adopt certain assumptions regarding the environmental attitudes of "power holders."

One widespread assumption is that politicians, bureaucrats, and the "experts" that have made their services available to them share views on the relationship between man and nature that are profoundly different from the views held by the environmentalists themselves. They argue that the experts both subscribe to a mechanistic philosophy of nature and support the prevalent engineering attitude, celebrating dominance, control, and manipulation. If the power holders speak of how fond they are of nature, environmentalists may easily respond by reminding them that such emotions are insufficient for grounding the proper respect: men who are very fond of women may nevertheless fail to pay full respect to the inherent value of women or the value of womanhood itself.

I have objected to such assumptions. I have maintained that politicians, bureaucrats, and experts probably do *not* share fundamental views that are less supportive of nature than the views held by environmental activists. I suggest that the causes for our society's often hostile environmental policies be sought elsewhere. Investigations that delve more deeply into the reasons for the neglect of environmental problems, reasons that may be at work even when the fundamental values of the individual power holder *would* favor more extensive environmental protection, ought to be placed high on the agenda for the remaining part of the 1980s and onward.

As a preparation for such investigations, I have suggested that we attempt to find out what philosophies of nature are actually subscribed to by those working as advisers to government and business authorities, people who are also perceived by the common person as “experts” on environmental issues.

This article discusses a preparatory investigation of this kind, which I carried out in the spring of 1985.

The Questions

In January 1985, I mailed a personal letter to 110 Norwegians who in their work deal more or less directly with environmental questions. The sample was not intended to secure a reliable representation of predominant attitudes in the professions they represent, either for Norway as a whole or even for parts of the country. The sample is too narrow to justify such conclusions. A more extensive investigation therefore ought to be carried out in the future. Nevertheless, the professional positions occupied by these people are important enough to make a presentation of their views interesting.

The letter consisted of: (1) an introduction; (2) eight questions, or rather points, to be discussed concerning the inherent value of nature and related topics; and (3) an explanation of and commentary on these questions.

The text of the letter follows:

Dear [name inserted]:

Among the activists in the movement for environmental protection, certain assumptions seem to prevail about the attitudes of “experts,” i.e., persons presumed to possess advanced knowledge of practical relevance about a restricted topic, on environmental protection. These assumptions are that the “experts” are not eager to protect nature for its own sake and that they are only concerned about protection that is useful for humankind, particularly in the short run or within the bounds of what is politically possible today.

These assumptions may reflect the fact that the expert opinions referred to in the mass media are usually answers to questions that are narrowly focused on issues of the day—therefore they do not represent the personal priorities or fundamental attitudes of the “expert.” Such priorities and attitudes are seldom stated,

VALUES, LIFESTYLE, AND SUSTAINABILITY

except in private circles. Some may also feel that airing opinions in the mass media on issues to which they cannot speak with professional authority will damage their professional status or their reputation for sober judgment.

Thinking that such assumptions are not justified, and that a more correct judgment of these matters will serve environmental interests, I have decided to inquire informally about the opinions of a number of experts on the relationship between human beings and nature. The inquiry will not be posed in general terms. It will relate to eight theses that are presented below, each with a commentary attached to it. I hereby invite you to participate in this inquiry.

I will certainly appreciate answers extending beyond a simple rejection or rejoinder to the views expressed, as you choose to interpret them. And I will be grateful for whatever opinions you might want to add.

Your response to this inquiry will in no circumstances be publicized without your express consent.

Yours sincerely,

Arne Naess

On the inherent value of nature and related topics:

1. The flourishing of human and other forms of life on earth has value in itself. The value of nonhuman forms of life is independent of their utility in the service of narrow human ends.
2. The diversity and richness of forms of life has value in itself, and contributes to the flourishing of life on Earth.
3. Human beings have no right to reduce this diversity and richness, except in order to satisfy vital needs. (See the comments on the term *vital*.)
4. A full development of the potentiality of individual human beings and cultures is compatible with a reduction of the human population. The protection and development of the diversity and richness of other forms of life presuppose such a reduction.
5. At the present time, the magnitude and character of human intervention in natural processes is indefensible, and the worsening of the situation is accelerating.
6. Essential improvement presupposes changes in fundamental economic, technological, and ideological structures. Such changes will have to make possible the joyful experience “that all things cohere” and dissolve the motives that support belief in the so-called “conquest of nature.”

7. Changes in our way of life will involve a search for a better quality of life rather than simply a rising standard of living. There will be a turn from a narrow focus on means to a concern for fundamental purposes.
8. Those who accept these theses are responsible for contributing directly and indirectly to realizing such changes.

Comments:

Point 1. *Inherent value* is employed synonymously with the term *value in itself*. Something possessing inherent value will not have to serve as a valuable means for some other purpose. Inherent value is independent from any such purposes. This, however, does not preclude that which is inherently valuable from also possessing value as means. A hike in the forest, or good company among friends, may possess both kinds of value.

The word *narrow* in the expression “narrow human concerns” plays an essential role. A widely and deeply reflective human being will be able to adopt the goal of protecting other forms of life for their own sake. Such a human being will see the inherent value of other forms of life and support employing means useful for their flourishing, just as he or she will support employing means useful for narrow human concerns. A society joined to such wide and deep purposes will act similarly.

Point 2. The expression “diversity and richness of forms of life” is commonly understood as referring merely to the number of species. We do, however, need to maintain parts of the wider employment of the terms *life* and *living*. The slogan “Let the river live!” formulated in the campaign to stop the damming of the Alta River in northern Norway in the early 1980s, was in this respect aimed right on target. Concern was not limited to the riverbed and the flow of water but included the complete habitat of flora, fauna, and human activities insofar as they did not disturb the life of the whole. Here I am speaking of our living planet and other large wholes (gestalts in the philosophical sense of the word), which cannot be limited to organisms in a zoological or botanical sense of the word. These applications of the terms *life* and *living* do not presuppose any particular mythology or philosophy, e.g., panpsychism. They make good sense of how we actually experience the nature within which we live.

The expression “richness” is linked to “diversity” to counter the tendency to reject only the total extinction of forms of life. It is not sufficient that somewhere on the planet there are eagles or whales of a certain species, e.g., killer whales. We must seek to maintain their communities and the places where they traditionally gather.

Point 3. If one objects that the formulation of point 3 is imperfect because it is vague and ambiguous, I argue that this rests on a misunderstanding of what may be achieved in a text consisting of so few words when the purpose is to articulate principles of some depth.

If I am to approach the practical problems more closely, a commentary on the expression “vital needs” will be required. The employment of the expression in point 3 bears a family resemblance to the employment of the term *fundamental needs* in social psychology. (I use the weak expression “family resemblance” because “vital,” as employed in point 3, is more philosophically than scientifically colored.) My use of the expression here is clearly oriented against a strikingly common interpretation of point 3: that anything considered necessary by a person or a group in a compromised social position may be considered a “vital need”—e.g., access to parking space, a job, the liberty to smoke cigarettes for those who feel a need for it. Such needs are not considered vital in point 3 for reasons that may be indicated by distinguishing between means and ends. It may well be that someone, finding himself in a compromised situation in which he can keep his job only if given access to a parking space, could have his fundamental needs left unsatisfied if he loses his job. A parking space in this case could be viewed as a more or less necessary means for satisfying some vital need. There are, however, too many ways in which the employment of this means can be made obsolete, thus countering any need to count access to a parking space as a vital need. These comments are, of course, not sufficient for preparing clarifying decisions, but they may at least help indicate the direction they ought to take.

The expression “diversity” is naturally interpreted as indicating the diversity of species, and this is an important part of the subject matter that it is intended to cover. However, the very broad sense of the expression “forms of life” implies that a diversity of landscapes and, more generally, landforms is also included in its scope. Environmental protection today includes such activities as the preservation of traces of old habitation and the human activities associated with them in former times. This includes the protection of old landforms, such as the peculiar geological formations of the Quaternary period.

Point 4. The formulation of point 4 may be a bit too categorical. However, if the emphasis is put on preserving richness as interpreted in the commentary to point 2, the last claim in point 4 is difficult to reject. One might, alternatively, recognize the unique expansion of the human species around the globe but nevertheless refrain from claiming that a subjugation of such magnitude is correct. Conced-

ing to such a claim would imply an awareness of the power of subjugation as such.

Point 4 is claimed to be valid only insofar as no changes of fundamental economic, technological, and ideological structures are under way, i.e., insofar as point 6 is not satisfied. If such changes are under way, the population problem may be reconsidered. It would, however, be irresponsible to presuppose that such deep changes will occur in the near future.

In criticizing point 4 it is necessary for one to consider the theoretical character of the thesis. Nothing is stated regarding the practical realizability of reducing the human population. Insofar as reduction is mentioned, this is motivated by the basic conviction that such reduction, if possible, would be valuable. Furthermore, it is important that the wide temporal perspective implied in this declaration of principles as a whole be given particular weight with respect to point 4. A time frame of a century will be much too short for turning the present growth in human population into a reduction. A socially and politically realistic aim would be first to stabilize population in countries with high growth rates, and second, to facilitate a very modest reduction in countries that now have nearly stable populations. Few areas of the world would, however, be exempted from restricting their population if point 4 is accepted.

Point 6. A considerable degree of consensus has been reached concerning the direction for the necessary economic, technological, and ideological changes. Point 6 could therefore be specified more concretely, if only to a modest degree—for example, by adding a list of key phrases indicating the direction for such changes, such as development of appropriate technology, an economy aimed at subsistence, decentralization of political authority, anticonsumerist agitation, public focus on life quality, enhancement of the life of local communities, and encouragement of holistic thinking.

The second sentence in point 6 counters the tendency within the shallow ecology movement to speak about our dependence on nature, the necessity to abide by the laws of nature, and the threat of a backlash (should we fail to abide by these laws) as if nature were an unfortunate hindrance to the flourishing of human life. The deep ecology movement does not share this discouraging view on the relationship between human beings and nature. In contrast, it builds on the experience of the invigorating intensity of this relationship.

Point 7. This point, perhaps more than any of the other points, is one that other participants in the environmental movement would have expressed in different terms.

The Responses

This rather long letter was sent to 110 “experts,” many of whom could perhaps be better described as high-ranking public officials. Thirty-three responses were received, some of them consisting of many typewritten pages, others more in line with a simple statement of agreement or disagreement with each question or point.

What impression did the responses make on me as a professional academic philosopher? I was very favorably impressed by the *quality of the answers*. Some of them ought to be published in extenso; this, unfortunately, is not the appropriate place.

I am grateful that so many respondents were willing to go along with the peculiar terminology used to characterize the eight points in the letter. It is also clear that their formulations occasionally abound with a kind of friendliness toward nature that would have reminded the directors of the Norwegian Water Resources and Energy Administration of the polemics of the Mardøla and Alta conflicts.¹ The answers, however, are frank, direct, and often agreeably unpretentious. A list of the respondents, all of whom have kindly given permission to be cited by name, is provided as an appendix to this article (see p. 183).

Excerpts from the Answers

In the following I quote some characteristic opinions on the eight points presented in my letter. I have taken the liberty to introduce and comment on the responses.

Responses to Points 1 and 2

It is highly relevant, particularly from the point of view of philosophical analysis, to ask (1) what inherent value is and (2) how the assertion that something possesses such value may be substantiated. To my delight, I found that most of the respondents accepted my employment of this terminology without reservation and responded affirmatively to my claims concerning such values. Others sought to express the assertion more precisely but did not dismiss the problems raised by its employment.

What if one is unable to substantiate an affirmative response to these points? I believe some of us would then point to an Aristotelian thesis which argues that the requirement that one must be able to ground all assumptions is a sign of deficient education (*paideia*). Some premises, both normative and descriptive, must stand unsupported. The alternative is to move in circles. On to the quotations!

It is probably of great or decisive inherent value—although I am at pains arguing why, and find it particularly hard to see how this inherent value could gain general acclaim, insofar as human beings to a diminishing extent live directly in touch with, and experience, “other forms of life.” The sum total of our impressions incorporates a steadily growing part that does not originate in impulses from “other forms of life,” but instead by man-made and technologically induced impulses.

(Per Sundby)

This is a very important point, although I find the word *probably* a bit misleading insofar as it is difficult to see how the probability of statements on inherent value may be determined.

Then it is burdensome to be exposed as a reactionary. I am not, in fact, eager “to protect nature for its own sake,” but only in accordance with ideas of what is useful for human beings.

(Per Sundby)

Some would say what is useful for man is what satisfies his needs. If we divide needs into material and spiritual ones, a versatile and mature human being would recognize a need to protect nature for its own sake. Therefore, nature is useful for man.

Value is a nice word. And I have nothing to say against the term *inherent value*. But I do not understand what it means. You explain what it does not mean, and claim that it may stand for itself. This leaves me just as wise, or rather: just as stupid as before.

(Hans Chr. Ødegaard)

This answer will receive support from professional philosophers who find the expressions “inherent value” and “value in itself” problematic. I myself trust the intensively meaningful and spontaneous experience of the

value of life in a free nature. It has been encouraging to see how the pictures of Earth taken from space have supported the opinion that the Earth and its life has a value in itself, in the sense of a value independent from us, the human beings. Philosophical analysis of concepts will hardly be able to uncover some illusion on this point; the debate will likely continue.

To me, talk of value makes no sense except in relation to something or someone. Living human beings are the closest at hand, then our closest forebears, etc., down the line of animals backward in time. Further down than moths and mosquitoes, grass and debris, this becomes difficult, but nevertheless: value must be *for* something.

(Hans Chr. Ødegaard)

It is a sad thought, but let us consider it nevertheless: a catastrophe leaves only one living being on earth, a baby six months old. The absence of “something” *for* whom or which this baby has value does not deprive it of value, as I employ the expression. Some will object by arguing that the value of the baby is something that we human beings ascribe to babies in general, disregarding these circumstances. My answer will then be: Very well, but this does not stop the baby from possessing inherent value, as I see it.

I believe that we will produce results easier and faster, or more modestly: that we may move societies and nations in the desired direction more easily, by considering value *for* human beings rather than through considerations of value *independent* of human beings.

(Hans Chr. Ødegaard)

This is an important remark, and one with which I concur completely.

A key, internationally recognized publication on our topic, *World Conservation Strategy* (IUCN 1980), makes its arguments on entirely “anthropocentric” grounds: nature has to be protected because it is necessary for the health and well-being of human beings. This publication provides *politically* weighty arguments throughout. A new edition of the book might benefit from distributing the percentage of the arguments—may I suggest 97 percent centering on *narrow* human purposes and 3 percent focusing on inherent value?

The word *narrow* in point 1 is important. Achieving all-around matu-

rity, a human being would in my opinion identify so strongly with other living beings that the sight of their mistreatment would cause pain, partly independent of whether the other being feels pain. The all-around mature human being would rejoice in the wholesome treatment of other beings. Thus, the value of these other beings would be independent of their “utility” in the normal narrow employment of that term. This is part of what underlies the addition of *narrow* to point 1.

[A]ll forms of life have value for humanity. The problem is that only small parts of humanity see, and are able to see it. Also, life that at first sight appears useless, or straightforwardly harmful, is part of the ocean of components that, gathered together, provides the experience of value/beauty/greatness and the feeling of awe/affection/wonder. This experience is accessible to different and always varying parts of nations or individuals, but always only to parts. The variations are also there in the individual: it's mostly gray, although there are glimpses of the sky.

(Hans Chr. Ødegaard)

The point of view indicated in this passage is very close to the more extreme one that I defend. It implies a step-by-step elimination of the stubborn “Cartesian” reference to the human subject. One might have objections to this elimination on philosophical grounds, or for (narrow?) commonsense reasons. Many seem to be receptive to the possibility but close themselves off at a certain point:

On point 2 I agree, but I am not quite able to see that it is possible to place value except in relation to man, and therefore doubt the correctness of saying “in itself.”

I will [also] emphasize some reservations with respect to the concepts employed, as I believe evaluations of diversity and richness are human values. What you really say is that the diversity and richness of forms of life, *as it is perceived by the human mind*, has a value in itself because it responds to deep human needs.

(Per Ofstedal)

On this I will remark that employment of the expression “in itself,” as in point 2, in ordinary, nonphilosophical, but still very instructive speech, *does not exclude* a relation to human beings. Ødegaard and Ofstedal are obviously philosophically infected experts!

Now let us consider a more down-to-earth passage:

The greatest intervention in nature throughout the history of man is probably *agriculture*. It has developed tremendously through the times we have knowledge of, and man has to a very large extent conceived agriculture as a *natural part of nature*.

It is, I hope, not too indiscreet to state that this, for many of us somewhat unpleasant, truth about agriculture is not presented by an expert in the Ministry of Agriculture but by one in the Ministry of Oil and Energy. What is done to Mother Earth by us in Oil and Energy is very innocent compared to the gigantic devastation of nature caused by the latest doubling of the population made possible by agriculture. And remember: only a small part of the cultivated area is *directly* employed to produce food for human beings. It is of no use if you claim that this devastation altogether, or at least 50 percent of it, covers the vital human need of nutrition. So stop mailing complaints to this ministry alone!

(Jon Tveit)

The importance of point 2 as an independent point in relation to point 1 seems accepted by most of the respondents.

[It is] out of *this diversity* that I gather the *inspiration and joy* which, among other things, enables me to do my work as an expert in my limited field as well as possible.

(Jon Tveit)

The continuation of this passage transports us directly to the most concrete conflicts of our day:

By the words *as well as possible* I include the importance of meeting the demands for energy—which is my professional field—in ways that take external values into consideration. What would this country, for example, be like if we did not exploit waterpower as it is done today?

(Jon Tveit)

The treatment of point 7, on quality of life, will provide an opportunity to comment on this quotation. Here I limit myself to underlining Jon Tveit's commendable employment of the term *demand* instead of *need*. I also rejoice in the fact that others in the same ministry stick to the same sober language. The same cannot be said of our representatives in Parliament!

Classical social economics was oriented toward the investigation of

how human *needs* could be satisfied as far as possible, given a specific social framework. Leading social economists before the First World War employed market demands as a useful quantitative indicator of certain kinds of market behavior, but they were not used in earnest as a measure of needs. An institution aimed at securing the coverage of energy needs would, from the philosophical point of view I have adopted, have to be crucially different from one aimed at securing the coverage of energy demands without concern for the value of satisfying this demand. In Norway, energy demand has very little to do with the vital and spiritual needs of particular individuals. (The “need” for crawfish is rising, it has been declared, and may create a new and important industry.)

Responses to Point 3

Support for points 2 and 3 does not imply that one must be committed to maintaining the population of all wild animals everywhere. Per Harald Grue seems to have interpreted point 2 in this direction and expresses the following objection:

I cannot, for example, see any need or any value whatsoever in maintaining the population of wolverines in the Agder Counties, as this will entail grave conflicts with the interests we have in keeping sheep grazing in the area. I am therefore of the opinion that we may keep carnivores in selected areas of the country only, and must be ready to accept that they will be close to extinction in other parts.

Point 3 is for me the expression of a deeply felt conviction. The two key words *right* and *vital* are, of course, so vague and ambiguous that the point cannot provide anything other than a very general guide for the regulation of our behavior.

I was pleasantly surprised to see that most respondents accepted this point. The rest did not protest but merely commented on it in various ways.

. . . I would perhaps give the notion of “vital” needs a richer content than what seems presupposed by the questioner.

(Knut Dæhlin)

The important point is that my comments on the word *vital* in the letter invited a quite narrow judgment of what should count as vital, i.e.,

what is necessary for the full satisfaction of basic needs (food, clothing, shelter, and so on).

It is striking how some people, when placed before undisturbed nature, respond to it with questions such as “What can be *done* here?” or “What can be *used* here?” rather than by appreciating nature as it unfolds. Eystein Paasche describes these two different attitudes:

Before I answer your question concerning the eight formulations, I would like to remark that I am probably quite atypical among the working marine biologists of Norway in 1985. I have a romantic attitude toward nature and its diversity, and I am skeptically inclined toward technology (even if I depend on it in my research work). The scene of professional marine biologists in this country is probably dominated by people who, quite to the contrary, believe positively that all problems have a technological solution. This engineering spirit will likely permeate many of the statements produced in professional circles concerning our fjords, oceans, lakes, and rivers in the years to come. If you would like to know what the “experts” really mean, you should instead interview the engineers (I employ the word for people who have adopted a certain attitude, rather than for those who have completed a specific education).

The difference Paasche points to does not appear clearly in the responses, although it might have done if we had posed a more particular question about *what* plans for intervention in the natural environment ought to be effectuated.

Some still share the enthusiasm so well known in Ibsen’s characters. Let me quote from the play *John Gabriel Borkman* (1959: 107, 117): “[T]he waterfalls! And the quarries! And the trade routes. . . . All the wealth that lay hidden in the soil, and the rocks, and the forests, and the sea—I wanted to gather it all into my hands, to make myself master of it all, and so to promote the well-being of many, many thousands.” There is probably not much left of the egocentricity of John Gabriel among our experts, but there is, most likely, some of the implicit sense of sovereign right and joy in exercising the power to “subdue” nature.

Eystein Paasche claims to have a “romantic attitude” toward nature. What is really meant, I think, is a realistic and ecological attitude. What he calls an engineering attitude also expresses a romantic idea: of the ever more sovereign mastery of nature by man. In the nineteenth century, a real-

istic and ecological attitude was present in the art of painting, which also in its day was stamped as romantic.

Whether man has a right to do this [reduce the diversity and richness of nature] seems to be the wrong question. Man assumes such right in virtue of his power. A good, and deterring, example may be Africa today. Because of overpopulation and drought, the deserts expand. People starve and die. Do the people of Africa not also have a right to strive for survival? They do clearly attempt to cover vital needs, and may by this attempt disturb the diversity and richness of nature beyond repair. In our industrialized part of the world, we use or consume ever more of nature even if our vital needs have been satisfied for a long time.

(Jon Tveit)

Strong words! I suppose that Jon Tveit accepts the distinction between having and assuming a right. What I am alluding to here is finding out if there might also be, among experts, people who spontaneously employ expressions such as “We do not have the right” with respect to destroying the conditions that support life on the planet: thoughtless breeding of children in Norway makes it difficult to work against thoughtless breeding of children in Africa.

The blind forces of nature herself limit the populations of different species. Are these forces not sufficiently strong to set boundaries for human beings? Is there a need to propagate limits, and is there any use in moralizing? “No” is a common answer to such questions. What follows is an example of something reminiscent of this attitude:

Do human beings have less of a right than dinosaurs or deserts? Is humanity part of the life on Earth, or do we consider ourselves qualified to rise above it? . . . The dispersion and development of the human species will find its natural limits, and nature will secure this by herself.

(Bo Wingård)

Is it even questionable to employ the word *right* as done in point 3?

I am in awe before the word *right* . . . “ought not” is better than “has no right to . . .”

[Speaker not identified by Naess]

The expression “we have no right to . . .” has a sharp ethical intention,

which I am anxious to maintain. “We ought not . . .” is too submissive for the purpose.

In the context in which the expression is employed in point 3, the ethical point may be elaborated in terms of *natural law*. I believe something essential will be missing in our approach to nature if there is no intuitive response to the ethical aspect of natural law, even though such a response is not necessarily entailed in acceptance of point 3. It will be sufficient to endorse the employment of the expression “we have no right to . . .” in ordinary language, as in the sense of “You are a big boy and have no right to strike your little brother (although he may have the right to slap you one)!” By using this language, I move in a different direction than Per Schreiner, who comments:

I am unable to see the word *right* as making any sense in this context—we *have* the power, or the capacity. My arguments would not rest on the word *right* but would rather consider what is prudent and good. To me, the question is one of estimating and comparing values.

Philosophical and scientific analysis of the expression “right to,” as it is employed with reference to the diversity of nature, has not definitely *confirmed* its invalidity, its senselessness, or the impossibility of applying it with precision. Per Schreiner nevertheless formulates a well-reasoned opinion, which provides support for a different formulation of point 3.

I do not quite agree with the point as it is stated. The first part of the statement is a “credo,” which I may accept as a basic guideline. The other part—on the vital interests—seems to express an ad hoc approach that does not deserve to be subsumed under the concept of “having a right.” Another matter is that realistic and rational intervention in natural processes is required for the management of situations that are not the product of human activity. It would, for example, be wrong not to fight AIDS for the reason that diversity must be protected, both because of the overriding concern of protecting human lives and because AIDS—given that the development of the last six to eight years continues unchecked—may produce a more severe catastrophe than atomic war, and make the problem presented in point 4 superfluous.

(Per Oftedal)

Particular decisions according to the guideline *suggested* in point 3 will require our sense of judgment to handle complex circumstances. The difficulties of practically employing our sense of judgment, however, do not re-

duce the importance of principles—they merely clarify their limitations. The control of AIDS is of vital importance for humankind. When entire species of living beings are considered, virus particles are not counted.

The edifying example of AIDS provides a natural occasion for commenting on the differences among diversity of species, diversity of populations (in geographically different places), and diversity (number) of individuals. Furthermore, it highlights the distinction between extinction and a reduction in population that comes close to extinction but is capable of being supplemented by other populations (e.g., in laboratories) large enough to secure survival.

I find it difficult to take a definite stand on several singular questions, e.g., diversity, richness of nature, fishing and hunting, and the regulation of sealing. The resources may be scarce, but I understand the bitterness of Finnmark fishermen when the resources are inaccessible because political decisions bar sealing and whaling of smaller species.

(Kaare R. Norum)

A useful remark! One could also mention the complex conflict of concerns with respect to the question of preserving a Norwegian population of wolves. The long-term aim would be a Barents Sea abounding with life as it was 200 years ago—and no *bitter* fishermen!

Per Harald Grue also discusses essential matters, but they cannot be paraphrased in a few words. Here are some of his conclusions with respect to natural values such as forest zones, rough grazing areas, and other features of the cultivated landscape:

I believe it is important to underline the necessity of considering natural values, their use and exploitation, together. This seems to me to be a systematically underestimated point in the debate on environmental protection. I also believe that it is dangerous to look at these questions with a conservative outlook, which at the outset assumes that there is only one form of economic activity that may secure and preserve these values.

Responses to Point 4

No one expressed any direct disagreement on point 4. Remarkable! Nevertheless, I have succumbed to the temptation to attach the following comments:

VALUES, LIFESTYLE, AND SUSTAINABILITY

I do agree, but on the condition that the reduction is carried out in an acceptable manner. There is a huge difference between enlightenment and free consent, indoctrination and forced intervention, and terror and violence, which makes obvious that some procedures may conflict with the purpose of the reduction, and that the costs implied by the method employed may outweigh the possible benefits.

The aim must be to reduce the number of people below today's level in the long run. I believe this is an aim that will eventually be reached. The question is if it will be reached in time.

(Per Oftedal)

I have claimed for a long time that Norway at least ought to facilitate a "freeze," as reduction probably will be much more difficult and probably require more time.

Traveling in Norway, I have seen how human cultivation year after year has destroyed different areas of the natural environment and diminished natural diversity. The growth in the population that has been going on since the 1950s ought not to continue, unless the structure of habitation and our way of life are changed. On a global scale, of course, these problems achieve quite different proportions.

(Jan Økland)

Bo Wingård, in keeping with his response to point 3, raised issues regarding taking action on the problems implied by point 4:

It is not certain that we have to be eager to reduce the size of the human population. It is reasonable to assume that such a reduction will come, without anyone specially chosen pressing the matter before the time is ripe for people to make the necessary decisions themselves. The reason for this is that the requirement that there be an equilibrium between the number of living beings and the resources necessary for their subsistence is inherent in nature, and therefore also in the human species itself. See how the growth of the population apparently is under control in China, because it has been discovered that the country cannot feed more than it is able to feed today. (It is strange, really, to watch Norwegian politicians worry over a slight decrease in the growth of the Norwegian population. They are of the opinion that other countries ought to watch out for overpopulation [China, India, African countries] but do not see the advantages of a decrease in the number of people in Norway. Considering the resource base of this country, the number of people living here is certainly not too small. For a large part, we

live off the production capacity of other countries.) So far, human beings (and nature) have always found a way out of the messy circumstances and the dependence on particular resources they have created for themselves. Therefore, we have no reason to be particularly pessimistic and believe that we will not find one in the future.

Only some aspects of the changes in the circumstances of life induced by human beings *can* be reversed. This holds for the extinction of species of living beings, which might add up to a million within the next thirty years. Many other aspects may be restored only by great effort, such as the ruination of approximately 5 million acres of agricultural land every year by salinization or exhaustion, about the same area that is lost because of the spread of deserts. Other areas may be saved only by establishing new guidelines for development. The annual, overall loss to development is calculated to be approximately 20 million acres, four times as much as is lost by the spreading of deserts. If the billions of poor people in developing nations choose to employ large areas for development as we have in Norway, there will be little land left for agriculture. It is one thing to come out of a “mess” alive; it is quite another to secure an acceptable quality of life.

If we assume that one Norwegian consumes forty times as many natural resources as one person in the developing countries, the cost of 4 million Norwegians will be as large as that of 160 million in the poorest parts of the world. Thus, a reduction of Norway’s population is also required, as long as politics and lifestyle are not changed drastically.

Kåre Kristiansen was the one respondent who came close to offering a negative response to point 4:

Because the consequence of what is expressed in point 2 might lead precisely to the circumstances described in the first sentence of point 4, I was reserved with regard to point 2. I, therefore, also find it difficult to answer point 4 with a “yes.”

From Kåre Kristiansen’s statements, I infer that it was difficult not only for him to answer point 4 with a yes, but also to answer it with a no. This is of interest because the Bible can be interpreted, although on an arbitrary basis, as if it is God’s will for us to procreate as much as possible, no matter how inconsiderately we may then handle his creation.² An opposing

interpretation is developed in Norway by the movement Gathering for the Creation. The ecologically wholesome publications of this movement contain instructive quotations from the Bible.³

None of the respondents associated a reduction of the human population with misanthropy. It is also noteworthy that none found it necessary to introduce the question of whether a reduction in some aspects of quality of life might result from human population reduction. Might family life be reconstructed in a way that yielded greater gratification than before by increasing interaction with the children of others? Is a more open relationship in neighborhoods and local communities possible? Surprisingly little has been published on these central questions.

Responses to Point 5

Reasonably enough, there were no direct objections to Point 5. Nevertheless, some concerns were raised:

I do not agree with the employment of the word *indefensible*, but maybe with the alternative word *irresponsible*. All actions can probably be defended with reference to some motive or other. The point is rather that the implicit philosophy or morality is lacking or is too egoistic or shortsighted.

(Per Oftedal)

I do agree completely that we do much that is both indefensible and inconsiderate, but I am much more optimistic with respect to the possibilities of rectifying the situation without lowering our material standard of living. In many ways, a revolution has been going on throughout the 1970s with respect to pollution. The efforts made have not been widespread throughout the economy, yet some of the initiatives have proved economically advantageous for society as a whole.

(Per Schreiner)

Here, finally, we have a passage that clearly represents what many call the shallow ecological movement. It may be characterized by attitudes and assumptions such as these:

- We may be optimistic with respect to the problem of pollution, which probably will decrease and become easier to eliminate in the future.

- The material standard of living in the richest part of the world may be employed as a general standard for all people.
- The economy of our society will not have to be changed dramatically. It will prove to be economically advantageous, in the normal sense in which these words are used in our society, to eliminate ecologically unsound policies.

When people hear of the contemporary destruction of nature, they easily get the impression that the harm done per capita in our time is larger than in other times. It is important to correct this impression:

Is this the case in our time only? Think then, for example, of the crude logging in the Røros⁴ area to provide firewood for the furnace ovens, and the slaughtering of the buffalo in the United States.

(Erik Kåsa)

It is quite clear that human beings in many nonindustrial societies have behaved as thoughtlessly and irresponsibly as we do, and perhaps even worse. We are nevertheless unique by virtue of our numbers and our *capacity* for grand-scale devastation.

To Kåre Kristiansen, point 5 seemed somewhat optimistic—or perhaps naive? This goes for others as well, even if they remained silent. The sense of crisis is not apparent in all responses. Some respondents did not consider the expansion of man across the planet to have reached an extent that makes each new asphalt road and construction project a *principal* problem.

If marshland is expropriated to launch a construction project, the forms of life that belong there must find another habitat or perish. One may assume, however, that the construction project will provide room and possibilities for the flourishing of other forms of life.

(Trygve Bergland)

It is obvious that activities offering favorable conditions for some forms of life will always simultaneously deny similarly favorable conditions for other forms. What I have attempted to bring into focus in my ecological reflections, however, is how all human activities combined *together* affect the conditions for life on Earth. Trygve Bergland seems quite relaxed about the situation. Is this calmness to be envied?

Responses to Point 6

I must admit my surprise at finding only two negative, or at least clearly hesitant, responses to this thesis:

[T]his formulation may seem defeatist. I believe, first, that great improvement in the protection of the natural environment can be achieved at a small material expense, and that the material structure of life therefore does not have to be changed all that much.

(Per Schreiner)

Per Schreiner, in this passage, provides valuable insight into the shallow ecology movement: We shall be able to solve ecological problems without people living in the industrialized nations having to pay a heavy price for it. A new effort must be made to clean up Lake Mjøsa,⁵ some restrictions on effluents must be tightened, but there is no real haste. Across the industrialized world, such evaluations of the situation are common. A public opinion poll would very likely show that the majority of the population shares Per Schreiner's views. Point 6 does not, however, primarily indicate a pessimistic view of the present situation, but rather an optimistic vision for the future. If changes come about as I conceive them, the quality of life will increase.

It is not given that it is necessary to change "fundamental" structures, even if the superior end of preserving the diversity of life on our globe must be accepted. It is not at all certain that the change of priorities that may be required will have to plow very deep.

(Erik Kåsa)

Point 6 was purposely vague, and the thirty-three respondents were free to interpret it in different ways, or to reject it as *too* vague. If what Erik Kåsa has in mind is freedom, equality, democracy, and the like, we do not have to *presuppose* changes. Nevertheless, a significant worsening of the ecological situation by a doubling or redoubling of the population might require that dictatorial measures be applied; alternatively, it might create chaotic circumstances in which the "right" of the stronger and more brutal prevails. The fundamental economic changes I have in mind will have to include a drastic strengthening of long-term priorities and a different understanding of the temporal perspective within which economic considera-

tions take place. The dominant maxim of “economic growth” must be eliminated or provided with a content drastically different from that associated with it now. New forms of communal life must be developed as fiscal, and other circumstances, be they by design or otherwise, make it difficult to breed more than two children.

I do agree that an improvement presupposes changes of attitude as pointed out in point 6. Whether these will be experienced as “delightful” by those affected, I am not quite sure. There is an inherent paradox in the fact that insofar as the enjoyment of a number of “goods,” like cars, holiday dwellings in the country, fishing as a sport, etc., is the privilege of a quite small group (“a privileged class”), there is no knowledge of the damaging effects. After the masses for generations have worked to achieve a standard of living that provides access to these same goods, rules are developed to bar them from realizing their goals. I am afraid that the realization of the conditions mentioned in the first sentence will constitute a rather painful endeavor.

(Kåre Kristiansen)

This is obviously an essential remark: a change in attitudes must in the first phase be presupposed to be most clearly developed among the economically best off. This concerns the use they make of their capital and their economic privileges. As long as they openly favor “goods” that only a few may obtain, the broader segments of the population will tend to believe that the use of such goods is particularly rewarding. They forget that conspicuous consumption will no longer be “conspicuous” once all take part in it.

My point on future gratification should have been omitted or modified. However, in some nonindustrial cultures, gratitude and joy in the sense of communion with nature has been a major topic. It is *possible* for us to reach such a distant goal.

It is an interesting feature of the answers to point 6 that they are brief. Kåre Kristiansen wrote the second longest one. It might be that the respondents consented to point 6 as a consequence of their consent to the preceding points. Many may also have found parts of point 6 unclear. Next is a response from Vidkun Hveding, which seems to have been reflected on thoroughly (as did his contributions to the debate on the Mardøla River regulation):

I do agree to the demands presented in the first sentence. With regard to the second sentence, “joyful experience” is a hopeful expectation that I share. The last part (on the dissolution of the motives that support the belief in the so-

called conquest of nature) I do not understand, even when considering the commentary on “the shallow movement.” For a human being like me, born and bred by nature, it is an incorporate orientation (“an imperative necessity”) to relate myself to nature in a way that secures the continuation of my existence. A tree, a fly, or a creek will not be “concerned” with my existence, but relate to me on their own conditions, if we meet. A “conquest” of nature then appears as senseless. Nevertheless, I do very well understand that a shortsighted “conquest of nature” may strike back terribly, and exactly in the sense sketched here.

Vidkun Hveding agrees on the conditions for a significant change. The assumption that a majority shares this view was the primary motive for conducting this investigation.

What Vidkun Hveding otherwise has to say perhaps testifies to an underestimation of the growing sense and understanding of our relations with all life. The “identification” that this increase provides for, makes it possible to see the experience of concern for other forms of life and the wholes that maintain them as *concern for oneself*. The concept of “self” that is implied in “my” self-realization is wider and deeper than the ego, which is considered in the popular versions of Darwinism. Technical and scientific insight today make it theoretically possible for a human population of reasonable size to live in a much more joyful and enlightened relationship with nature.

Responses to Point 7

My formulation of Point 7 was unsatisfactory. Forty-one words should perhaps suffice for achieving a higher level of precision? I considered myself obliged to suggest *something* about how the changes mentioned in point 6 would affect our lifestyle. The result was, unfortunately, the presentation of some slogans. I would have needed much more space to elucidate them in a sober and objective manner.

I find it very hard to respond to this question with a yes or a no, as it seems to me to be expressed very much in terms of what I consider slogans of the movement for environmental protection.⁶

(Per Harald Grue)

Many found themselves able to provide an answer despite these weaknesses:

Expert Views on the Inherent Value of Nature

To increase quality of life instead of the standard of living in this country is in harmony with my view. Yes, a reduction of the standard of living for large groups would be for the general good.

(Jon Tveit)

Agreed, but I presume that before a utopian attitude can develop, humanity must go through a time of distress, during which the consequences of the present development are recognized in all parts of the world.

(Per Oftedal)

Yes, in time, in our society. But how large a part of the world do we represent? What about the millions of hungry people, who do not merely live from one day to the next, but who also become ever more clear about the fact that we, in our part of the world, live in affluence at the expense of a slight increase in their standard of living? When will we start taking this problem seriously? When will we be forced to do so? Will we accept being forced, or will we take the matter into our own hands? Perhaps the pessimistic outlook on the future resides precisely in this question. It seems very hard to believe that a majority in our country will start reflecting on quality of life unless we, one way or the other, are awakened by someone from the outside forcing us to handle these matters differently.

(Bo Wingård)

I agree in part. But no matter how we twist and turn this matter, the question of the *means* will be central. I do not believe in any antitechnological romanticism in this context. The development can only move in one direction: farther ahead. All we can muster of science and technology must be geared toward new goals, e.g., to achieve a stable balance among different forms of life, instead of completing a "conquest of nature" (a particularly primitive goal).

(Ivar Øye)

This may be right in principle, but it is probably impossible to accomplish in practice. I suspect that I myself, as well as most other people, have an understanding of the quality of life that presupposes a highly developed technology, and therefore will be irreconcilable with ecological equilibrium.

(Erik Kåss)

A "highly developed technology" is to me today, however, one that does not have a dramatic impact on the material world and requires relatively few material resources for its employment compared to the satisfaction it provides.

I interpret what Erik Kåss expresses as a very important and honest

confession. Maybe “ecological equilibrium” can be achieved by combining changes both in how “most people” regard quality of life *and* in how they view advanced technology. Is it the opinion of Bo Wingård (see the quotation above) that some sort of equilibrium will appear, so to speak by itself, when the time is ripe? Will the situation, sooner or later, make most people recognize that materially defined luxury will not work whereas the technology I consider to be “highly” developed is exactly the one that contributes to an equilibrium? The way I see the situation, organizations such as The Future in Our Hands and Alternative North⁷ do essential work raising such questions, even if they are “ahead of their time.” Per Schreiner, as may be expected from his earlier responses, seems to mean that a relatively high material standard of living *and* equilibrium are possible, but *also* that we have much to learn from organizations like The Future in Our Hands:

I believe that large groups in the affluent Norwegian society still have their lives constrained because of material wants, including housing and child care. There is much that is valuable in The Future in Our Hands and Common Sense,⁸ much to learn about how more can be extracted from life under given conditions. My arguments would, nevertheless, depart from accepting that high material standards themselves are good, even if it is necessary to be aware of the cost of maintaining such standards because of the stress they produce both for oneself and for one’s surroundings, and through the strain they place on the natural environment. The last problems are perhaps the ones I would emphasize the least, because I am of the opinion that such problems to a large extent may be avoided at small material costs.

One response, the one presented by Finn Gran, may be distinguished from the others because it comments on the questions instead of answering them directly—except for point 8. I suppose that many of those who did not answer at all would have done likewise, if they had decided to answer. Therefore, I find it appropriate to quote some characteristic comments from Gran’s letter:

Regarding point 1:

Changes in the “climate” and the conditions of life on Earth have probably—usually slowly and sometimes quickly—been going on at all times. The whims of nature—and reflective as well as unreflective human action—have influenced natural values. Human beings must, I suppose, themselves be considered a part of “nature.”

Regarding point 3:

Human beings have by their “interventions,” e.g., through the development of a civilization, made it possible for you and me to *enjoy* nature in different ways. What would you have made out of your life by yourself, without the access to food, wine, proper housing, etc., produced by modern means? It is quite unthinkable to exist without access to such fundamental goods (tools) as, for example, energy.

Regarding point 7:

A high standard of living is in my view a condition for a good quality of life. Without an advanced economy, technology, medicine, etc., a happy birth, childhood, youth, old age, etc., are not possible. What goods are the “environmentalists” themselves willing to forsake? What about you, for example?

Regarding point 8:

Yes, and those who do not accept all your points nevertheless bear full responsibility for the welfare of the coming generations.

This article is not the right place to air my own thoughts in detail, but I am unable to restrain myself completely.

What worries many in Norway today, among other things, is the *kind* of *increase* in the average material standard of living since the mid-1950s. If we consider the needs for security, companionship, healthy nourishment, stable circumstances for family life, housing and proximity to the workplace, local community, and so on, the changes have, particularly in the 1970s, had little to do with an increase in the quality of life. The Future in Our Hands group has provided, and still provides, good answers to the question of how quality of life may be enhanced without stimulating the “consumerism” that today, to a large extent, is identified with high material standards of living. This consumerism is both unrealizable on a global scale and ecologically destructive. For these reasons alone it must be stopped.

Tens of thousands of Norwegians would gladly rest contented with a material standard of living that in many of its essentials would be no higher than it was during the Second World War occupation. Many more would “tolerate” a reduced consumption of material “goods” *if* the reduc-

tion were part of a plan for protecting Norwegian nature and increasing participation in global efforts to protect the conditions for life in general. The support for point 7 bears witness to a very serious dissatisfaction with our care for the diversity of nature; it also demonstrates an understanding of how difficult it will be to “turn the tide.”

The question of whether we in Norway today trade off the fundamental ends of life for perfecting technically interesting means is discussed by Vidkun Hveding:

I do agree to some extent. A real concern for ends must imply a certain interest in the means necessary for reaching them. What I agree about in particular is that the puritan industrial culture, which for a couple of centuries has provided a mighty push toward the fulfillment of some partial ends, has restricted our attention to the means at the expense of the ends to an extent that (no longer) is for the good.

It is impossible for me to leave point 7 without citing a contribution that I characterize as touching:

This I do agree about completely. . . . We have, however, only been able to live up to these goals in a rather helpless way, since the search for what we ourselves conceive as quality of life, in reality also is an egoistic endeavor.

(Olav Hilmar Iversen)

Neither the striving for a higher standard of living nor the striving for a better quality of life is in itself egoistic (in any reasonable interpretation of the word). Such striving may, however, become egoistic if not based on identification with other living beings. One who rejoices in the joy of others does not thereby become an egoist. Neither does one who, occasionally, deliberately seeks to please others in order to please himself. This “self” is not what in the terminology of social psychology is called the ego. (Please excuse me if this commentary sounds condescending!)

Responses to Point 8

How do we create a totally changed attitude in the population? This is the problem. How do we relate to the people of developing countries? They ought to have a higher standard of living, and it would not be bad if the cost is for us to lower ours. If and when this happens, their requirements will rise, and nat-

ural resources will become even more diminished. The world is complicated—in particular because there are human beings in it.

(Jon Tveit)

I agree with this, as a point of departure. Resourceful individuals have a particular responsibility for contributing to a more wholesome development of our societies, but this will not happen through the formation of societies such as *The Future in Our Hands* in which we speak to a limited congregation. The problem is how to make this way of thinking a natural part of life in our culture. Can we believe that our politicians may facilitate this, occupied as they are in fighting each other over what means to apply for furthering the common goal of growth and welfare? I do not think we must despair. I feel certain that those who are conscious of the responsibility will be given the opportunity when the time is ripe. . . . When will nature produce these thoughts with sufficient clarity for persons sufficiently competent to have a lasting influence on humanity?

(Bo Wingaard)

Let Jon Tveit and Bo Wingaard have the last words in the report on the answers to the eight points! Concerning the eighth point there was, as expected, broad agreement. I will therefore now quote miscellaneous comments of interest on topics not touched on directly in my eight points.

The main conclusion concerning the degree of agreement and disagreement is clear: there was general agreement on all eight points. Some of the points were vague enough to allow for diverse and equally vague responses. Therefore I cannot, with the exception of the responses to the central first part of point 6, sort the answers into clear-cut categories. In the summary shown in table 1, I distinguish among “clearly and definitely positive responses” (++), “positive rather than negative responses” (+), and “negative responses” (-).

Table 1: Summary of Survey Responses

	1a	1b	2	3	4	5	6a	7	8	Total:
++	25	20	24	17	24	26	26	16	28	206
+	1	4	3	6	0	5	5	1	2	27
-	1	0	0	0	0	0	2	0	0	3

A critic of my investigation, Peter Reed, has stated that my letter to these experts induced them to respond favorably. It seems highly unlikely,

however, that this influence could have been strong enough to reverse the ultimate outcome of the survey if the letter had been omitted.

Selected Topics

The Role of the Expert

On the responsibility mentioned under point 2, Per Sundby commented:

This responsibility is evident, but avoided like the plague by many “experts.” I have myself had the misfortune of experiencing both loss of confidence and professional scolding for presenting perspectives of value in a professional context and for commenting on “expert opinions” and/or “expert nihilism” concerning social problems and problems of health care.

It is perhaps unnecessary to mention that “presenting perspectives of value” is something I hoped to encourage by my letter. Something must be wrong, however, if “experts” who serve as advisers to public authorities are not “scolded” a bit from time to time in public debate. What will have happened if no such experiences are found?

The recognition that expert evaluations are neither all-encompassing nor quantitatively unambiguous often makes me ambivalent about my own role and my statements. As an expert, I believe that nuclear power plants may be built, that forests may be sprayed with weed killer, and so on. General social and political considerations nevertheless make me think that such power plants are undesirable (i.e., not because of the danger they represent but because of economic considerations, regional political concerns, antitechnocratic conviction, etc.). Similar considerations apply to the question of spraying with weed killer, although then my respect for the opposition of common people, their fears, romantic attitudes, etc., carries more weight. The simplest case is nuclear war, where all considerations point in the same direction. (As an “expert,” I have participated in an investigation of this question initiated by the World Health Organization.)

(Per Oftedal)

I hope that Per Oftedal, and others in similar positions, inform the public about their general attitudes even if these, at the deepest level, cannot be argued for on professional grounds.

If you, and others engaged in the environmental movement, are of the opinion that I am not eager to protect nature for its own sake, this may be an effect of my disapproval of speaking with professional authority outside of one's professional field. I have among my colleagues seen so many examples of "professorial" statements, which have been considered weighty merely because they were uttered by a professor, disregarding that he has been no more than a lightweight amateur in the relevant field. For this reason, I seldom express my opinions on topics other than those I have knowledge of as an "expert."

(Morten Gautvik)

I am tempted to say, That will not do, Mr. Colleague! The interested public ought to be informed about your priorities on questions of value, and your attitudes on questions of lifestyle. Neither can nor should your opinions as an expert be divorced from their general philosophical premises.

As an expert engaged in taking care of work that our society requires, I often feel unjustly attacked by the environmental movement, and I believe this has been harmful for the movement itself. If the matter was considered in a broader perspective, I am of the opinion that we to a large extent share the same goals, and that we to a larger extent ought to have worked together, rather than against one another, to reach it.

(Jon Tveit)

In the Norwegian debate on environmental issues, which has been quite lopsided in focusing on the regulation of rivers, statements have been uttered on both sides that should have remained unsaid. On the deepest level, we all share the same goals. Both sides, however, ought to develop a more critical attitude toward society.

Environmentalists cannot in any way accept that maintaining a high quality of life in Norwegian society requires energy to be used in today's quantities. Therefore, we have to distinguish between energy use and energy need. The quality of life depends on satisfying needs, not on increasing energy use. There is no direct contradiction involved, if the expert working to maintain production on the one hand is also warning insistently and publicly against increasing production on the other. The level of consumption in Norway today cannot be shared by all without producing terrible effects globally. Personally, I must add that I do not believe that the three kinds of goals in life—pleasure, happiness, and perfection—can be

achieved more easily with support from the overly complex apparatus that justifies the high level of energy consumption that we have today, than with the use of simpler tools. I do not know of any philosophy that claims that the achievement of a versatile and rich life requires the employment of complex means. From this conclusion stems today's deeply critical attitude toward industrial society.

This deeply critical attitude is, however, probably not shared by a majority of the 110 experts who received my letter. It is possible that many of those who did not answer share an attitude of the kind that Oluf C. Müller describes:

Guided by goodwill and common sense, my intuition tells me that, by and large, we achieve sound results from our work in this country. This is the case not the least because the so-called experts also have a sense for more than material values.

I am sorry to say that I am unable to display a correct picture of my attitudes [on the man-nature relationship] by answering the eight questions posed.

I believe that, at bottom, I am as fond of nature and concerned about it and the preservation of its different species as most people in our country. I judge it as very valuable that movements for environmental protection, and a general concern for environmental problems, have appeared. On the other hand, I have little sympathy for extreme responses—e.g., protesting professors employing direct action⁹—because I really believe this leads to the opposite of the desired results.

I am clearly a proponent for continued economic growth, although, of course, not at any price. The evaluation of the price is precisely what I am concretely confronted with, and this requires a sense of the appropriate in each different case, which cannot be described by answering the eight questions posed.

It has not been my intention to lecture. However, since lecturing has been alluded to, I have to admit that since I consider wonder not merely the point of departure for philosophy (Plato?) but also its point of arrival (hardly Plato's?), all definite opinions will have to seem unsatisfactory. There is little reason to believe that our "experts" at bottom feel very differently. A valuable response has the following postscript attached, reflecting on itself:

Puh . . . And how shallow, stupid, disconnected, and self-contradictory, despite revisions—which ought to have been pursued. Principles and generalizations are of interest.

(Hans Chr. Ødegaard)

***Basic Views on Value Are Neither Less nor More Justifiable
Than Basic Rules of Logic and Science***

I have little faith in absolute objectivity, and consider it both important and correct that common people see those who play the role of experts as human beings with personal values and convictions. I do not see in this any conflict with the respect for logical and disciplined thought.

(Per Schreiner)

From a philosophical point of view it is commendable that most respondents did consent to wide-ranging statements on values and norms. There were, nevertheless, signs of discomfort expressed in this agreement. How many statements on values and norms (ethical and others) be grounded? Can they be grounded rationally? Should not experts stick to statements that can be grounded rationally?

In what follows, I attempt (in a very simplified manner, if considered from a professional philosophical point of view) to calm the distrust regarding forcefully expressed statements on values and norms. There is little point in reducing such statements to a mumble or persistently employing phrases that reduce their force (“This I consider . . .” or “This I feel . . .”). What is required is a certain kind of basic respect for fellow human beings who proclaim opinions incompatible with one’s own. Stop mumbling, stand up, and proclaim your view!

Per Sundby’s comments on point 3 are in this vein:

Personally, I find it difficult to understand what rights men have or do not have, without a presentation of the reasons that justify norms limiting the rights of human beings in their relations with one another as well as in their relations with nature. I have been working to create a rational grounding of certain norms for consumption and norms for human relations that are important for the protection of health and welfare, and have collected extensive empirical material for this purpose. I am not certain that the same kind of rational grounding may be found for presenting the diversity of life as a precondition for human diversity, and particularly as a precondition for social stability and for the restriction of the space within which the most destructive forces can unfold. I am still looking for a way to bridge the gap between motives for environmental protection and the motive of preventing a continued deprivation of the health and social circumstances in different populations.

In certain formulations, (implicit) statements of value expressing the

rights of man seem to appear as the deepest level of justification. A deeper level would provide a justification for such rights of man. Let us assume that these rights are grounded in man himself as a rational being, or by the creation of man in the image of God. An even deeper justification would provide a normative grounding for one or both of these statements. The work on justification will continue indefinitely, unless statements are found at some level that can be claimed as self-evidently valid. Much philosophy has been developed to distinguish between what has been counted as self-evident before and what counts as self-evident now. This is very difficult terrain.

What I want to emphasize is merely that we have to *stop* somewhere. We present something as the deepest level in the chain of reasoning that provides justification for our opinions. We do not attempt to justify statements on this level.

The expression “rational grounding” of *A* by *B* is usually employed when *A* appears as more or less strictly implied by *B*, which then is accepted as the deepest level in the chain of reasoning. If the statement *B* is not accepted as valid, we accept that *A* is no longer rationally grounded in *B*. “Rational grounding” rests on statements that in logical terms are considered postulates *and cannot be grounded themselves*.

“Protect Norwegian health!” and “Protect Norwegian welfare!” are well suited in Norway as statements at the deepest level in chains of reasoning intended to aid social and political decisions. These may then be expressed as resting on rational grounds, but the rationality of this grounding is, of course, relative to the postulated imperatives.

Chains of reasoning either have an end or form a circle. In the latter case, we ground *A* in *B*, *B* in *C*, and *C* in *A*. I cannot accept such a procedure in full earnest and therefore contend that we have to accept that at any particular time, and in any particular situation, there is a deepest level of reasoning that is not grounded. This is the case both when “facts” are considered and when evaluations of values and norms such as ethical imperatives, rules of logical inference, and so on, are made.

Some answers clearly showed that taking a stand comes naturally. Per Sundby, and most of the other respondents, does not seem to have doubted the legitimacy of presenting strong statements in matters of value. On points 5 and 6, Sundby proclaims:

I have no difficulty supporting these views, even if they should lead into deep waters regarding evidence, objectivity, or professional respectability.

When we close in on the most fundamental premises, we are not in deep waters. We simply are.

Conclusion

The results of my investigation suggest that many of those close to the policy-making process consider changes to be necessary at all levels of society, politics, and ideology to protect the conditions of life locally and globally. They also indicate that at the grassroots level “experts” and “environmentalists” generally share a common view on what basic values ought to guide the effort to bring about such changes.

Given these insights, we should ask the “experts” why these values are so poorly represented in the practical policies that they participate in shaping. Finally, we should ask the “experts” how they believe this discrepancy between theory and practice can be bridged.

A heartfelt thanks goes to those who found time to answer my many questions, and to Kjell-Håvard Bråten, who aided me in the publication of the original text.

Appendix: List of Respondents

Fredrik Barth. Professor, Department and Museum of Anthropology, Ethnographic Museum, University of Oslo.

Trond Berg. Professor, Nordic College of Domestic Economics, University of Oslo.

Trygve Bergland. Former Department Director, Norwegian Water Resources and Energy Administration.

Anders Bratholm. Professor, Department of Criminology and Criminal Law, University of Oslo.

Knut Dæhlin. Director General, Ministry of Oil and Energy.

Odd Steffen Dahlgård. Professor, Clinic for Psychiatry, Ullevål University Hospital.

Torstein Eckhoff. Professor, Department of Public Law, University of Oslo.

Morten Gautvik. Professor, Department of Medical Biochemistry, University of Oslo.

VALUES, LIFESTYLE, AND SUSTAINABILITY

Tore Gjerløw. Head of Division, Ministry of Oil and Energy.

Finn Gran. Department Director, Norwegian Water Resources and Energy Administration.

Per Harald Grue. Director, Department of Agricultural Policy, Ministry of Agriculture.

Vidkun Hveding. Former Chief Executive Director, Norwegian Water Resources and Energy Administration.

Olav Hilmar Iversen. Professor, Institute of Pathology, University of Oslo.

Erik Kaas. Director of Administration, Oslo Sanitetsforening Rheumatism Hospital.

Kåre Kristiansen. Minister, Ministry of Oil and Energy.

Oluf C. Müller. Secretary General, Department of Industry.

Kaare R. Norum. Professor, Nordic College of Domestic Economics, University of Oslo.

Hans Chr. Ødegaard. Head of Division, Ministry of Agriculture.

Per Oftedal. Professor, Institute of General Genetics, University of Oslo.

Jan Økland. Professor, Division of Limnology, Department of Biology, University of Oslo.

Ivar Øye. Professor, Department of Pharmacology, University of Oslo.

Eystein Paasche. Professor, Division of Marine Botany, Department of Biology, University of Oslo.

Hugo R. Parr. Head of Technical Laboratories, Det Norske Veritas.

Alexander Pihl. Professor, Institute for Cancer Research, The Norwegian Radium Hospital.

Jan J. Qvigstad. Assistant Director, The Bank of Norway.

Roar Rognes. (position unknown)

Olav Sandvik. Director, Department of Agricultural Policy, Ministry of Agriculture.

Per Schreiner. Director General, Ministry of Industry.

Per Sundby. Professor, Institute for Social Medicine, University of Oslo.

Jon Tveit. Department Director, Norwegian Water Resources and Energy Administration.

Jon Rasmus Vale. Professor, Department of Thoracic Medicine, The National Hospital of Norway.

Olav Vannebo. Head of Division, Ministry of Industry.

Bo Wingård. Managing Director, Norwegian Correspondence Institute.

Should We Try to Relieve Clear Cases of Suffering in Nature?

This essay addresses the empirical manifestations of life, not questions about the innermost essence of life, whatever that may be. Therefore, it does not discuss beliefs in the absence or presence of a definite trend toward ever “higher” life-forms. It just talks about what we see around us.

Aldo Leopold and many other dedicated protectors of nature seem to hold that nature as it evolves with its fabulous manifold is good in an ethical sense, not beyond ethical good or evil. At least this is my conclusion about Leopold’s opinion, if we accept the rather trivial proposition that if something is ethically wrong, it cannot be ethically good.

In *A Sand County Almanac, and Sketches Here and There* (1987), Leopold says: “A thing is right when it tends to preserve the integrity, stability and beauty of the ecosystem. It is wrong when it tends otherwise.”

Various interpretations are possible, some of which are not acceptable to me. These are interpretations such that the above formulation—let us call it the *L*-formulation or just *L*—furnishes a general criterion or definition of right and wrong in an ethical sense. I do not operate with any such general criterion or definition. Also, I am worried about the “thing.” If “a thing” is meant to connote something much wider than “an interaction of a human being with the rest of an ecosystem,” then over the centuries things would happen that according to *L* would be wrong: ecosystems come and go.

A reformulation of *L* such that I could accept it would read: “A decision has presumption in its favor if there is reason to assume that its implementation will tend to preserve—or at least not interfere with—the integrity, stability, and beauty of the set of ecosystems concerned. A decision

This article was reprinted with permission from *Pan Ecology* 6 (1991): 1–5.

has a presumption against it if there is reason to assume that its implementation might reduce the integrity, stability, or beauty of the set of ecosystems concerned." I write "set of ecosystems" instead of just ecosystem because any human interaction happens with a set of comprehensive systems of unequal scale—the largest today being the planetary system of the sun.

At least one distinguished ecologist, Ivar Mysterud, and a friend of the reindeer, thinks that even if there were an ecologically very innocent way of heavily reducing the population of a certain parasite that causes extreme pain to the reindeer, or of altering its habits, it should nevertheless *not* be carried out. The reason: it might disturb a relevant ecosystem. We know too little (the *docta ignorantia* of a field ecologist!). I agree that there is a presumption against it, but I disagree with his conclusion. The very prolonged, cruel sufferings of the reindeer count more. I am for radically reducing the population of the parasite even if it may be wrong according to *L*. If an ecosystem is dominated by pain-producing parasites, perhaps we might say its "beauty" diminishes? I am somewhat uncertain about how to interpret the term, and also about the possibility that human beings could preserve or enhance beauty by interfering.

Philosophically less important, but ecopolitically important: if an ecosystem has been radically disturbed or destroyed by human beings (for example, through deforestation) and a different ecosystem is created (for example, a desert), does *L* cover the new system? If "man-made" ecosystems are not covered by *L*, how is the European situation to be judged? Fairly old landscapes that are "man-made" in the sense of having been radically influenced by human beings a long time ago are now protected as "free nature." We try to preserve their present integrity, stability, and beauty, or we try to restore a former ecosystem considered to be more "natural," but partly because their "human" character has been forgotten.

In short, I feel a need to know about how *L* is applied in concrete cases.

Perhaps because of the problematic nature of all proposed criteria of goodness since the time of Socrates, I look with wonder at the efforts to find a nontautological supreme and general characteristic of goodness. Perseverance in the service of protecting nature, and support of the deep ecology movement, does not imply any definite opinion on questions of unconditional goodness of nature as a vast set of ecosystems—not even on whether the question of goodness is meaningful. In what follows, I shall fo-

cus on the darker side of free nature and how contemplation of this may influence one's choice of ultimate criteria of the goodness and badness of a case of interference.

The development of life on finite Earth clearly presupposes the process of dying. We must "accept" death, but the death of insensitive beings does not disturb us as much as the death of sensitive beings, and a quick, painless death does not disturb us as much as a slow, painful one. Sometimes the quick death is due to predators; sometimes the slow, agonizing death is a "natural" death of old age—but sometimes the opposite is the case.

Every day some animals become weak and ill and enter a process of dying that involves prolonged pain as far as we can judge from their behavior. When wild reindeer smell large carnivores like bears, wolves, or dogs, they run away quickly. Old and tired reindeer find it more and more exhausting to keep up with the others. The same holds of some of the young ones. If they are caught quickly by carnivores, they tend to get a rapid, merciful death and not a slow, "cruel" one. Some reindeer experience the latter. Having been badly attacked by a winged insect (*Cephenomyia trompe*), they may die very slowly from suffocation from the growing larvae in their noses.

I hope no such planet exists, but consider one where slow, painful death from parasitism is universal. How would we talk about nature on such a planet? What kind of book would Thoreau have written there?

The parasitology of mammals tells us about parasites that kill or maim in ways that elicit intense alarm, disgust, and great negative feelings in us. Evolution specialists tell us that such parasites are not among the most successful and highly developed ones, which thrive without inflicting intense suffering or death on their hosts.

This admission of the imperfection of some parasites does not console their victims, however. The situation is relevant in assessing the adequacy of unconditional positive, sometimes highly emotional utterances about nature. What do human beings do when witnessing animals in what they think is unnecessary and prolonged pain? Those who intensely identify with the victims try to rescue them, provided it is not too late and a practical way is seen. The rescue may involve merciful killing by human hands. Generalized, and made into a policy, rescue attempts would amount to an

attempt to reform nature. Not everybody studying the consequences of such a policy will accept it as desirable. Because it is totally out of our reach completely to eliminate prolonged extreme suffering, it is of no practical value to discuss its ethical status, but its existence makes *general* glorification of nature strange to many of us.

A main point under consideration is our ignorance of consequences. What if we had adequate knowledge? One answer: we never will have! I suppose, though, that we could have sufficient knowledge in particular cases. If adequate ecological knowledge were available, some of us would not hesitate to interfere on a large scale against intense and persistent pain.

The manifold of different cultures is a desideratum according to most supporters of the deep ecology movement, but in many of them some animals in culturally important situations are caused terrifying and persistent pain by human beings. There is a real difference between initiation rites of a culture causing pain and rites involving animals who cannot grasp the meaning of the pain inflicted on them. Their helplessness is of a higher order. My very tentative conclusion is that the cultures in question might be approached in a way that indirectly would cause a change of behavior toward those animals.

"Look at this exquisitely beautiful little creature! Look at the colors, the shapes, the impressive and beautiful contrast between the green surrounding and its own colors! How can we not bow down in awe? How can we human beings kill and destroy so much of beautiful nature!?"

This passionate utterance may have occurred when a nature-worshiper saw a ladybird beetle in action, without noticing that the beetle was systematically using her formidable jaws to pierce the bodies of small green aphids, eating her way through a stalk of them. If her behavior were filmed and enlarged and shown on a big screen, the same nature-worshiper would probably shudder.

The utterance "beautiful, lovable!" does sometimes, but not always, depend directly on a process of identification. If identification is strong, an utterance like "tragic, paralyzing, horrible" may be rather natural. Moreover, action will follow, completely spontaneously. The victim is rescued.

A “compassion priority norm” seems to collide with the point of view of Stephan Lackner in his very important book *Peaceable Nature*:

We have to accept life on its own terms. There are no others, at least none that apply to us. We have to talk about “good” or “bad” even while conscious of the obvious relativity of such valuations. “Good for whom?” we have to ask before every decision. The more general the applications of this “good,” the more desirable. The mounting scale of positive values would appear, consequently, like this: good for my own self, for my family, for my club, for my community, my ideological or religious group, for my province, nation, continent, for humanity, in ever widening circles. Only when we come to the most general aim—good for life—is relativity suspended, allowing us to envisage an obligatory good.

(Lackner 1984)

Can I know whether rescuing or not rescuing a living being from lasting, excruciating pain is “good for life” of the biosphere at large? I don’t know, and I decide to rescue anyhow.

For some philosophers, among them Peter Wessel Zapffe (Naess 1991e), the hypothesis that life is completely meaningless plays an important role; for others, hypotheses about definite cosmic goals are all. Lackner says that we “have to accept life on its own terms.” Some people, however, decide to quit life, basing their decisions on hypotheses about their own lives and their unwillingness to continue. One may have a norm saying that one *should* accept life on its own terms, whatever they are, but this is a norm that many of us feel depends on some fundamental premises: answers to the question “Why should we?” Must we be passive because insufferable pain is a genuine part of life?

What is the status in the work of Thoreau of compassion and interference to end prolonged suffering? It is a question that might throw light on his basic view of identification and the human–nature relationship. When he observes one ant fighting another, there is identification:

I saw that, though he was assiduously gnawing at the near foreleg of his enemy, having severed his remaining feeler, his own breast was all torn away, exposing what vitals he had there to the jaws of the black warrior, whose breast-plate was apparently too thick for him to pierce; and the dark carbuncles of the sufferer’s eyes shone with ferocity such as war only could excite. . . . I felt for the rest of

that day as if I had had my feelings excited and harrowed by witnessing the struggle, the ferocity and carnage, of a human battle before my door.

(Thoreau 1971: 230–31)

Just within the edge of the wood there, I see a small painted turtle on its back, with its head stretched out as if to turn over. Surprised by the sight, I stooped to investigate the cause. It drew in its head at once, but I noticed that its shell was partially empty. I could see through it from side to side as it lay, its entrails having been extracted through large openings just before the hind legs. . . . Such is Nature, who gave one creature a taste or yearning for another's entrails as its favorite tidbit!!

(Thoreau 1949: 345–46)

There is a certain neutrality in this attitude in spite of strong, but partial identification with sufferers. I do not see examples of Thoreau interfering “in nature.” It is as if Nature, by him written with a capital *N* in the above quotation, is something apart or that human beings are something apart. I do not know. Just because I am not apart, I interfere in certain situations no matter what abstract reflection tells me.

Ecosophy, in my variant, “T,” does not imply any “acceptance of life” independent of definite assumptions about life. It contains—among others—two hypothetical assumptions: (1) there are no structures of the universe such that living beings cannot reach the highest levels of realization of their potentialities; (2) there is no definite limit of development of symbiosis, using this term in a wide sense. The development of ecosystems is not such that the self-realization of a living being depends *necessarily* on the destruction of the potentialities of others.

Part of the motivation for developing Ecosophy T is a reaction against “cult of life” and “cult of nature” *whatever its manifestations*. It is also a reaction against a tendency to take as axiomatic that life—Life with a capital *L*—somehow exists independent of the behavior of living beings, and that nature—Nature with a capital *N*—somehow exists independent of what happens, manifests itself for all to see. Ecosophy T does explicitly and firmly reject human brutality, cynicism, oppression of the weak, and lust for “power over.”

The twentieth century has seen political developments in which completely amoral acceptance of power and strength has been justified based on

concepts of “nature red in tooth and claw.” If nature is dependent on brutality, and we are part of nature, why should we try to shun brutality? As Hitler once said: “We have to destroy the Polish intelligentsia. It may sound brutal, but it is in accordance with the laws of nature.” Brutality, racism, and other coercive phenomena have been defended in many ways, but one of them is by means of an unrestricted acceptance of *every* manifestation of life in nature.¹

A student of cultural anthropology may witness in a particular culture a case of extreme suffering, which he may consider completely unnecessary and easily avoidable. Yet he knows that if he uses his way of eliminating that suffering, he undermines the culture. The clash of norms is formidable; there is no easy way out. Whatever the decision, the goal would be, according to Ecosophy T, to relieve extreme suffering of the kind envisaged *within* the framework of the culture. As with animals, ignorance and misconception must be taken into account. A culture is not something static.

Whether we are dealing with cultural systems or with ecosystems, the problematics are in principle the same: we have to assess the consequences of interference, the short-term as well as the very long-term effects, and judge the effects in terms of a norm system. We *have to* reach conclusions based on glaring inadequacy of available empirical knowledge and a clear norm system.

The complexity of the web of life even within a cubic millimeter of soil is, and presumably will remain, indescribable, but if humanity does not destroy itself, our basis for concrete ecological decisions may increase immensely. Respect for the dignity of free nature and proper humility do not rule out planned interference on a greater scale, as long as the aim is a moderation of conditions of extreme and prolonged pain, human or non-human. Such pain eliminates the experience of a joyful reality. We are not justified in turning our backs, or closing our eyes, to extreme suffering.

The higher levels of self-realization of a mature being *require* with increasing urgency the assistance of any living being to realize its potentialities, and this inevitably actualizes the concern for the sufferers.

This kind of argument indicates part of the motivation for not placing a norm like “Richness and diversity of life!” as an ultimate norm. The ultimate guidelines must squarely face the extreme suffering in nature. The argument implies disturbing some manifestations of life; it implies interfer-

ence in natural processes—but highly selective interference and not necessarily on a large scale. Interference in nature today is excessive.²

The admission of the existence of extreme kinds of suffering in free nature does not in any way support highly influential “bellicose” views of nature as a whole. The most often quoted articulation of such a view is that of the poet Tennyson: “Man . . . who trusted God was love indeed / and love Creation’s final law / Though Nature, red in tooth and claw / With raven, shrieked against his creed. . . .” Darwin used his expression “the struggle for life” extensively, and the interpretation was quite natural that he mainly referred to the painful and deadly struggle against enemies. Kropotkin, early in the twentieth century in his seminal *Mutual Aid* (1955), objected, but the view that nature was *full* of cruel competition suited the extreme economic liberalism and colonialism of England as well as the bellicose nationalism of Germany. Today, popularizations of this theme are still found in the life sciences. The opposition is vigorous but less known to the general public.

The following six propositions I think are tenable:

1. Predation (of animals by animals) has played an important role in evolution but is not a necessary ingredient on the level of birds and mammals.
2. A very small portion of birds and mammals die through predation (5–10 percent).
3. Only a small part of the life of animals is adequately described by the expression “struggle for life” or “struggle against enemies.”
4. The fitness referred to in the phrase “survival of the fittest” does not in general refer to fitness in deadly struggle or cut-throat competition with others.
5. Many birds, such as flamingos, and mammals, such as koalas, rarely meet a violent death (not taking human and exotic, human-introduced predators into account).
6. In the long run and on the whole, the less the chance of getting killed, the fewer the number of descendants. There is no general pressure to have as many offspring as possible. (Having no natural enemies results in a natural birth-control tendency of having fewer pregnancies.)

Should We Try to Relieve Clear Cases of Suffering in Nature?

Even if these propositions are strongly confirmed by observation, it is not very strange for a twenty-four-hour stroll in free nature to result in many observations aptly but unprofessionally characterized as tragic, brutal, cruel, hideous, horrible, or detestable.

Accounts written by forerunners and contemporary supporters of the deep ecology movement rarely mention these encounters and observations. Why not? I think it is worth pondering that most supporters implicitly assume and strongly feel the existence of a creative principle essentially connected with life that more or less compels veneration—something akin to Spinoza's "God or Nature." It is, however, nature with capital N. Trying to communicate this essential creative aspect of life by dwelling on cruelty and pain would lead us astray. So we don't talk about it?

In Ecosophy T there is an ultimate norm "Self-realization!" and an ultimate hypothesis "The higher level of self-realization reached by a living being, the more further increase requires others to reach self-realization."³ In simple words, it is not a question of acceptance of any kind of life but of "live *and let live*!" Thanks to the capacities of the human brain, full realization of our potentialities—if there is any limit—cannot be anything like an ego trip but must be a joint venture with other beings, both human and nonhuman. The higher the level of realization, the more the realization is a joint venture, a Self-realization without loss of the individuality of each living being. We have sometimes the potentiality of relieving extreme suffering, human *and* nonhuman—and we make use of that privilege.

Sustainability! The Integral Approach

The Greek philosopher Diogenes of Sinope, or Diogenes in the Barrel, is well known because of his meeting with Alexander the Great. When Alexander, standing in front of Diogenes' barrel, asked him to express a wish, he is said simply to have answered, "Please stop blocking my sun!" Alexander could have granted him much more. He could have had gifts produced through great expenditures of energy and natural resources. Diogenes was active in the rich cultural life of Athens, but this did not require any gifts of that kind. Diogenes' solution to his housing problem was a nonverbal expression of a globally, regionally, and locally sustainable lifestyle, and his answer was a verbal suggestion of the same. Alexander was reminded of the ecologically innocent character of vital needs, and—let us not forget Diogenes' proverbial wit and joyful, spontaneous character—Alexander got a lesson in "rich life, simple means." It is said that most followers of Diogenes through the centuries have misunderstood him, taking him to be a proponent of a simple, not a rich, life.

The reason I mention Diogenes of Sinope is to remind you that classical Greek philosophy as well as philosophy in the Middle and Far East combined the verbal and the nonverbal. You were not a philosopher if you did not. Today, we still say that so-and-so is a philosopher and use the word for such a combination, but the intended range of philosophies seems small. Mostly people have in mind what the professionals call popular Stoicism, or, to give another example, popular Epicureanism. The very special form

This article was reprinted with permission from *Conservation of Biodiversity for Sustainable Development*, edited by O. T. Sandlund, K. Hindar, and A. H. D. Brown. (Oslo: Universitetsforlaget, 1992), 303–10.

of Western academic philosophy does not ask for a philosopher. No combination of theory and practice is called for. If it were, some of you would perhaps be called sustainers, practicing a philosophy that combines theories of biodiversity and sustainable development with an appropriate, or at least, intended appropriate, lifestyle. There is much talk about a “new” ethics of respect for life on Earth, but it does not focus on the lifestyle of those who emphatically agree. One strong reason for the neglect is the plain fact that the complication and structural density of modern society make it practically impossible to combine the consistent use of simple means with participation in social and political struggles.

Depressing? Yes, but we may allow ourselves to say that Diogenes in the Barrel went too far. Here I follow Aristotle in advocating “everything with (philosophical) moderation.” An Indian practicing philosopher perhaps also carried the concern for citizens’ self-sufficiency and equimindedness too far when he, old and satisfied with life (“enough is enough”), brought together some wood, started a fire, placed himself on top, and cremated himself (in conformity with a practice that caused deforestation in certain localities). Incidentally, yoga of some sort is part of most classical Indian philosophies. They integrated theory and practice.

Fortunately, there are possibilities for decreasing the unsustainability and ununiversalizability of the “average” lifestyles in economically rich countries without decreasing life quality. To exemplify such a decrease is a great aim for some who wish to be taken seriously in the present struggles.

Discussing various interpretations of the term *sustainable development*, we may start with the following formulation: There is sustainable development if, and only if, it ensures that it meets the vital needs of the present-day human population without compromising the ability of future generations to meet their own vital needs.¹ This formulation resembles those of the Brundtland Report, but there is a major difference: the substitution of *vital needs* for just *needs*. Lists of needs made by decision makers in the rich countries include items that clearly are exorbitant and ununiversalizable. Even the *desire and demand* for more parking space is generally talked about in terms of satisfaction of a *need*. Those often are placed in urban locations where children have had their precious playgrounds, or where people have long lived but cannot afford a car, or among those who are incapable of resisting destruction of their habitat.

Needs are accepted that, if met, exclude sustainable development in every acceptable sense. The term *vital*, although vague and ambiguous, is a good starting point for a critical approach to the term *need* in its relation to *demand* in the marketplace of the world's rich countries.

If we postulate that human beings have a special ethical obligation toward their fellows, that which serves the vital needs of humanity requires a kind of priority. This does not mean, however, that we have no serious obligations toward nonhuman beings, and classes and systems of such beings, culminating with obligations relative to the Earth as a whole. These obligations, though, are mainly negative: obligations related to destructive consequences of our exponentially increasing interference in the ecosystems.

As to the satisfaction of human vital needs, there are at present a substantial number of human beings living in a desperate state of poverty or oppression, which clearly prevents a minimum satisfaction of those needs. They live mostly in countries one may call poor, using an economic measuring rod, and the term *sustainable development* should there imply *sustainable economic progress*.

The implied task is gigantic considering that there may soon be twice as many people in the poor countries but not twice the area of cultivable land. Under similar circumstances, Europeans who immigrated to North and South America introduced vast unsustainability, including a decrease of human cultural diversity.

It marks a major victory for the global ecology movement that the World Commission for Environment and Development announces clearly that sustainable development unconditionally requires ecological sustainability. The consequences of this admission are far-reaching because ecological sustainability requires significant economic, technological, social, political, and cultural changes in most or all countries. Here I shall first dwell on a terminological consequence: the term *developing country* automatically implies "ecologically developed country."

If we retain the underdeveloped/developed terminology, we must therefore class all ecologically unsustainable countries as *underdeveloped* without need to add the adverb *ecologically*. It is implied by our terminology that these countries are underdeveloped. The richest industrial country is not a developed country if it is not in a process of ecologically sustainable development.

A revised terminology has already been introduced in Norway: "When will it rise from being underdeveloped to being a developing country?"

That is, when will the rate of unsustainability (globally measured) decrease in a stable way? My guess is that by the year 2020 this may well happen. As it is now, Norway, like the United States, has not turned the tide of pollution, energy consumption, and other variables that must be taken into account. Those who think this guess is rather pessimistic are likely to neglect our wide perspective: it is the global situation that counts, and we must take into consideration that in the years 2000, 2010, 2020, with an even bigger population and with economic growth in terms of GNP in the Second and Third worlds, the projected level of Norwegian pollution, growing energy consumption, and so on, cannot be tolerated. Talking about 2020, I have assumed that political ability to take ecological problems seriously will increase, but not in any revolutionary way. That would require a vast increase of active interest within the Norwegian population at large—many more sustainers!

One may hold that it is wiser to modify the old usage of *developed*. My point is only that there is ample ground, when we seem to encounter its old use in discussions, to ask what the terms are meant to express, and then strongly discourage any use that might support the old belief that the rich industrial nations are developed and somehow able to show the poor countries the way to development. This belief is still not uncommon within the power elites of the Second and Third worlds, I am afraid.

In the 1980s it was out of the question for a wide group of politicians to declare that life on Earth, or life in the Universe as a whole, has any value in itself apart from the rather narrow serving of human needs and interests. It was out of the question to declare that the richness and diversity of life is worthy also of being cared for for its own sake, in the sense that we feel it obvious to care for children for their own sake. Such thoughts could not have been incorporated into a report such as *Our Common Future* by the World Commission on Environment and Development (United Nations 1987). By now, only one country, New Zealand, can show a public document that affirms intrinsic value. If, within a few years, such an affirmation becomes commonplace, it will not make much difference in human practice, but it will *add to the force of argumentation* in favor of generous, wide sustainability. “You *said* it has intrinsic value! Why don’t you act accordingly?”

The formidable capacity of our brains makes it easy for us to “see ourselves in others,” not only in other human beings but in every living being.

Sometimes it is even easier to identify with certain animals than with certain human beings. Compassion, aided by the brain, is something that encompasses everything capable of pain. The interest, in a broad, easily understandable sense, of a tiny plant to live and blossom is obvious, and under suitable circumstances we act to serve this interest. The definition of sustainable development cannot ignore these facts. A wide and deep perspective is obviously needed. Human capacity to think and to feel, human dignity, requires it. Our contemplation of the development of life on Earth through countless millions of years, the development of the richness and diversity of life-forms, almost inevitably makes mature, informed human beings adopt a wide perspective. In short, we demand that full ecological sustainability shall mean or include conservation of the richness and diversity of life-forms. We cannot slavishly accept the narrow interpretations of the Brundtland Report (*ibid.*), interpretations that some of the signatories, including Gro Harlem Brundtland herself, personally, I think, find too narrow.

Let us look closely at the term *sustainable development* as it occurs on page 8 of *Our Common Future* (*ibid.*): “Humanity has the ability to make development sustainable—to ensure that it meets the needs for the present without compromising the ability of future generations to meet their own needs.” Plausibly, but narrowly interpreted, what might according to the above be considered satisfactorily sustainable is compatible with maximal destruction of life conditions on Earth, a maximum of extinction of life-forms and habitats of life-forms, a maximum of gross human interference with landscapes and ecosystems—as far as these maxima are conceived to allow satisfaction of human needs, as those needs are conceived at any definite time. In addition, we must ask, Considered by whom? It is clear that by “reforestation” many decision makers do not refer to getting back real forests. The artificial tree plantations with fast-growing trees do not support the biodiversity of a forest. The number of species in them may be one-fourth, or less, of those of a decimated forest. If it is objected that one must distinguish the forest *itself* from the animal and plant life in it, the ignorance of ecosystem thinking is clear, and the way is open for a maximal destruction that only too late will be seen to be incompatible with the satisfaction of vital needs of additional billions of people born in the years to come.

In the present conflicts, the usual narrow interpretations of “sustainable development” are convenient for planners of gigantic destructive poli-

cies, because it is difficult to convince people that future generations will lack the ability to take care of themselves whatever we find suitable to do. People read about technological inventions, even revolutions, that are likely to push the limits of responsible growth indefinitely. They do not read about the lack of economic and political will to make global use of the inventions made even long ago.

Rejecting the narrow concepts of ecological sustainability, which a plausible interpretation of the Brundtland Report admits, some of us are on the outlook for definite, wider interpretations. Preferably these should not be completely implausible interpretations of the document but should be in harmony with what at least one of the twenty-two people underwriting the document had in mind. The criterion I am going to make use of in what follows does not explicitly refer to human beings, but they and the richness and diversity of their cultures are implied.

There is ecological sustainability if, and only if, the richness and diversity of life-forms is sustained.

Ecology helps us to understand and watch out for destruction of ecosystems and habitats. Those terms are not used in the above formulation because it should be widely understood and be emotionally attractive. By “richness” I do not refer to abundance of specimens of species but to their wide distribution locally and regionally, provided that wide distribution is realized today or was recently realized and it is practicable to restore the former situations.

The criterion is applicable to the Earth as a whole, to regions, nations, and societies, but only to some extent to localities. It is perhaps of little use to talk about ecological unsustainability, for example, in *small* areas or localities of monoculture or of city developments. A region may be called sustainable even if there are plenty of localities of that kind. Otherwise, sustainability is too utopian. The term *development*, however ambiguous, must be used because of its importance in policy documents. A terminology proposal:

A *development* is ecologically sustainable if and only if there is a long-term trend that assures, or that may justifiably be considered to assure, ecological sustainability.

The special obligations we have for our own species require us in the long run to assure a population what is necessary to provide conditions for

reaching the ultimate goals of humankind and satisfying vital needs. Beyond that, our obligations to life in general and the Earth as a whole acquire priority. These obligations will in the foreseeable future scarcely determine policies with wide sustainability as a goal. If the most exciting threats, such as those involving climatic change and the ozone layer, seem to be overcome, and if spectacular animals and limited plant biodiversity are saved, certain regions may be classed as developing in an ecologically sustainable way. In a broad sense, crude ecological unsustainability may still be at hand. There is a long way to go.

If some Third World countries reach ecological sustainability in the next century, which one will be the first? Costa Rica? The education level of women is high, the standard of living is increasing, the government is interested, a significant number of "parataxonomists" (raised in the country) and others help mapping out the fauna and flora and do an important job to increase respect for and joy of life. Furthermore, much is done to develop sustainable uses of tropical biodiversity, thus integrating concern for ecological sustainability in society. The cooperation of researchers and local people is flourishing. The ecologist Daniel H. Janzen is the most well-known researcher working along "social ecological" lines and collecting millions of dollars in aid for Costa Rican projects. All this activity decreases the ecological unsustainability in some ways, but large-scale deforestations still go on. Some researchers guess that only about 10 percent of the habitats will be saved from complete human domination with extensive regions of monocultures and asphalt. It is, therefore, a wide-open question when sustainability will be reached, if at all.

One may wish that all other tropical countries would develop in the auspicious way of Costa Rica. The corresponding amount of money that would have to be collected in the rich countries would not be in the range of millions, but billions. Benevolent bureaucracies would have to be available, and an army of ecologists and their assistants working together with the local populations.

The great Danish philosopher Søren Kierkegaard, the father of existentialism as a philosophical movement, insisted that human beings are always in "deep water." Their decisions must be made on the basis of a total integrated view, but systems like Hegel's are mere fictions. This implies, in principle, going back to ultimate premises, and to a conception of the main

goal of human life, whether pleasure, happiness, or achievement of some sort. It implies also that if you consider a certain question to be of immediate relevance for actions in your life, your community, or life on Earth, you must have an answer, whether expressed through deliberate words or through deeds. Moreover, we should remember that even if we do not answer deliberately, our actions or lack of actions express answers.

In life one cannot say “Leave me out!” Ignorance and incompetence furnish explanations, but not an excuse—not automatically. The question “Are we informed to an extent that should be expected of us?” is relevant.

Crudely expressed, if it is an important decision either to turn right or to turn left, to do neither also has important consequences. One answer may be “I am too tired to reflect. I’ll go left!” This or similar kinds of answers must, of course, sometimes be tolerated. The main thing is the awareness, with equanimity, that a choice is made anyhow.

The practicing philosopher is one who feels an obligation to answer but who does not thereby pretend that it is worthwhile for others to listen. Perhaps all our answers are more or less imperfect.

Those who are serious about somehow decreasing unsustainability locally, regionally, or globally may contribute to the effort in specialized jobs (for example, as researchers) or as generalists, showing as much as explaining their choices in life. They are then to be classed as *practicing philosophers*, whatever their degree of ignorance of academic philosophy. Sometimes this ignorance may be an advantage.

In our very special kind of culture in the rich countries of the West, verbal articulations in the form of reasons are highly appreciated. Somebody may ask, “What is your reason for valuing priority *A* over *B*?” You may have a reason R_1 , but then you are asked, “What is your reason for accepting R_1 as adequate?” Suppose you answer with an R_2 , or you admit that you do not pretend to have a sort of reason R_2 such that if it were untenable you would give up the priority of *A* over *B*. That is, you stop the chain $R_1, R_2, \dots R_n$, after the first number of the series. Generally speaking, such behavior is wise, because it is likely that sooner or later you will give misleading reasons, reasons that do not really fit your ultimate or complex motivation. Today, though, we must dig deeper—our global perspective makes it necessary.

One of the many great achievements of Aristotle was a clear denial that

we can prove everything we assert. We cannot give good reasons for everything. We stop somewhere, normally outside science, and doing this, we may, if appropriate, quote Aristotle. We can say that belief in the possibility of proving everything shows lack of education, and that we like to be considered educated.

My advice is to stop giving reasons when you announce something you personally find *intuitively* obviously true or correct, or something that you cannot imagine yourself giving up except for reasons you have never heard of and cannot see how they could be convincing. This is not dogmatism. You are not less philosophical or deep or scientific for stopping at a certain point to repeat again and again certain announcements without giving reasons. You are not worse off than mathematicians and logicians who repeatedly use the basic rules of inference, which they, by definition, cannot prove or validate scientifically.

Intuitively-based announcements are common today. Here are some examples:

“Every life-form has a worth of its own independent of its usefulness for human beings.”

“Animals have a right to exist, no less of a right than human beings.”

“Life diversity is a good thing independent of human usefulness.”

“Life on Earth is a value even without human beings to value it.”

Some philosophers offer reasons in favor of these pronouncements; others accept them without offering reasons; still others do not accept them and give reasons for that. They also stop giving reasons somewhere.

All this would be pointless to say except that, again and again, we see people who *unreasonably* feel guilty for not giving reasons, or we see scientists who hide or never announce their basic norms or evaluations because they lack “scientific” reasons.

Human beings are never wholly functionaries; they never behave wholly as functionaries. They are always, as specimens of adult, sane *Homo sapiens*, responsible as persons. The timid “As I see it . . .” and “In my personal opinion . . .” are misplaced if ultimate views are at stake. You try to step outside of yourself, try to be a *mere* witness to your own intuitions.

What about conflicting intuitions—are they not a cause of violence and war? Yes, but also a partial cause of peace, progress, and nonviolence of the most superb kind.

Some concluding remarks: Full global and regional biodiversity is necessary to reach full ecological sustainability. Full ecological sustainability is necessary to realize sustainable development. Biodiversity is required to satisfy the vital needs of humanity. This is now generally acknowledged. That the biodiversity of this planet should be protected also for its own sake was first internationally recognized through the United Nations World Charter for Nature. The initiative to get this established was taken by a group of Third World nations. The General Assembly adopted the charter in 1982 by a vote of 111 to 1, with the United States casting the sole dissenting vote. Only a *rich* nation dissented!

It serves the cause of biodiversity to maintain that it has a value in itself apart from narrowly conceived usefulness for human beings. It also helps when people who maintain this testify to its profound implications through their lifestyle, at least in some ways in some kinds of life situations.

High-level humanitarian norms justify ecologically negative policies. They should be short-range, and often they are avoidable by a cooperation of rich and poor nations on a greater scale than ever before.

Because of its touchy nature, I wish to end with a remark on the size of the human population as seen in a cultural-philosophical perspective: a future long-range, slow decrease of the human population would to some extent increase the chances of full biodiversity, sustainable development, deep cultural diversity, and the prospect of satisfying vital needs and reaching cultural and philosophical goals.

The Arrogance of Antihumanism

One may have such a low opinion of the human race that the phrase “live and let live,” applied to the ecosphere as a whole, is considered incompatible with deep, specific human interests. Permit me to suggest that the attitude expressed by “live and let live,” in the broadest and deepest sense, is specific to human beings. Up to this point, we know of no other life-form in the universe whose nature is such that, under favorable circumstances, it would more or less inevitably develop a broad and deep concern for life conditions in general.

Human beings have a sufficient natural endowment such that they can perceive and enjoy their kinship with living beings of the most diverse kinds, and care for them. To realize their total potentialities, mature human beings need communities that permit them to live out their full capacities for identification with other life-forms.

Under unfavorable social conditions, human capacities for identification do not manifest themselves. There is, however, sufficient empirical evidence to show that people in our industrial societies who are reared and educated under appropriate conditions do develop attitudes of the kind expressed in deep ecology. This occurs without their being necessarily deficient or immature in other human ways.

If we focus our attention unduly on the crudest behavior of human beings, we are tempted to form an unfavorable image of human nature. This focus tends to lead some authors to postulate that the domination and exploitation of nature are inherent in the nature of human beings, that the

This article was reprinted with permission from *Ecophilosophy* VI, edited by George Sessions (May 1984): 8–9.

primacy of human interests implies the subjugation of the interests of other beings.

On this planet only human beings formulate general norms about equal rights, and perhaps only human beings have a nature that calls for identification with all life-forms. This makes it awkward to use the term *humanism* to refer to attitudes that go against human nature in a philosophical sense. Present-day anthropocentrism is inhuman in my view. It is specifically human both to see and formulate the limitations for the role of human beings in the ecosphere and to experience their identification with the whole.

In criticizing the “homocentrism” or “anthropocentrism” of the shallow ecological movement, we are pointing to an image of man as an immature being with crude, narrow, shortsighted interests. It is an image well suited to the kind of policies that predominate today. I refuse to accept the view that a high level of human self-realization can be reached by the satisfaction of mere narrow, insensitive, shortsighted interests.

“Obviously the most humane goal of mankind is the improvement of the human lot” (Watson and Smith 1970: 25). Yes and no! Yes, only if “human lot” is defined in harmony with the need to satisfy basic aspirations such as the realization of egalitarianism as defined below. Then the quoted sentence does not say much more than this: . . . given a set of value priorities for humankind. In relation to such a set, the most humane goal is the improvement of conditions for realizing the priorities.

If “human lot” is defined more narrowly, then something will be missing. Then we would have to add “But surely it is just as specifically a humane goal to improve the lot of a broader class of beings!” This holds even if we admit that the fight for mere biological survival must sometimes considerably narrow down our goals. Such temporary minimum goals, however, are not the most humane.

Human beings have no less right than any other life-form to change the world. I do not see that deep ecology needs a *general* norm against human efforts to change ecological conditions on Earth, but Barry Commoner and others are right about the present-day generation of human beings when they claim that any major man-made change in natural systems is “likely to be detrimental” to those systems. Today’s combination of ignorance, arrogance, and narrow perspective justifies this pessimistic view. If, however, human beings in some remote future could avert a glacial age, or

the impact of a comet, then I tend to think that no norm should be used against interference of this magnitude in natural systems.

Egalitarianism applies to human beings: they have the right to live and blossom, *just as* other life-forms do. This right is in principle the same and does not admit of degrees. (The term *egalitarianism* should perhaps not be used for this equalness, for it is also used in many other conflicting ways.) Each life-form has its own nature, which determines what kind of life gives maximum satisfaction. For example, among bears there are differences in lifestyle (some bears not only kill for food but also maim and cripple).

It may sound paradoxical, but with a more lofty image of maturity in human beings, the appeal to serve deep, specifically *human* interests is in full harmony with the norms of deep ecology. This is evident, though, only if we are careful to make our terminology clear. This terminology is today far from common, but it may have an illuminating impact. It proclaims that essentially there is at present a sorry underestimation of the potentialities of the human species. Our species is not destined to be the scourge of the Earth. If it is bound to be anything, perhaps it is to be the conscious, and joyful, appreciator of this planet as an even greater whole in its immense richness. This may be its “evolutionary potential” or an ineradicable part of it.

Is today’s large-scale deforestation “natural” for human beings? It depends on our terminology. In my terminology: no. There are others, though, who seem to think that a norm against destruction would thwart the human species in “its natural behavior” (Richard A. Watson). If we are to refer to how human beings actually have behaved lately: YES. Why not adopt a kind of terminology with deep roots in the past, the *kata-physin* terminology. To live “according to nature” is for human beings not just to live without any bearings.

It is deemed natural for a species to show preference for its own interests over the interests of any other species. In a society that fulfills human aspirations, the mature member shows preference for its interests over the interest of any *single* other species, but only because human interests concern greater wholes in space and time. The mature member is a friend of the Earth. Their deepest interests are not destructive.

If someone asks how I know this, my answer is that, of course, I do not know this—but neither do they who would maintain that mature human interests constitute a threat.

The Place of Joy in a World of Fact

The solution of environmental problems is presupposed in all utopias. For example, every family is to enjoy free nature under Marxian communism. “In a communist society,” Marx says in a famous passage in *The German Ideology* (1970), “nobody has one exclusive sphere of activity but each can be accomplished in any branch he wishes. Society regulates the general production and thus makes it possible for me to do one thing today and another tomorrow: to hunt in the morning, fish in the afternoon, tend cattle in the evening, engage in literary criticism after dinner, just as I have in mind, without ever becoming a hunter, fisherman, shepherd, or critic.”

The complete individual is not a specialist; he is a generalist and an amateur. This does not mean that he has no special interests, that he never works hard, that he does not partake in the life of the community. He does so, however, from personal inclination, with joy, and within the framework of his value priorities.

In the future ideal society, whether outlined by Marx or by more bourgeois prophets, there will be people who might use most of their energy doing highly specialized, difficult things, but as amateurs—that is, from inclination and from a mature philosophy of life. There will be no fragmentary men and women, and certainly no fragmentary ecologists.

We all, I suppose, admire the pioneers who, through endless meetings held in contaminated city air, have succeeded in establishing wilderness ar-

This article was reprinted with permission from *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions (Boston: Shambhala Publications, Inc., 1995), 249–58. It was originally published in *The North American Review* (Summer 1973).

eas in the United States. Unfortunately, their constant work in offices and corridors has largely ruined their capacity to enjoy these wilderness areas. They have lost the capacity to show, *in action*, what they care for; otherwise, they would spend much more time (and even live) in the wilderness. Many people verbally admire wilderness areas, but they have not stepped down from their exalted positions, as chairmen of this or that, to enjoy these areas at least part of the year.

What I say here about advocates of wilderness seems, unhappily, to be valid for advocates of a better environment in general. Ordinary people show a good deal of skepticism toward verbally declared values that are not expressed in the lifestyle of the propagandist. Environmentalists sometimes succumb to a joyless life that belies their concern for a better environment. This cult of dissatisfaction is apt to add to the already fairly advanced joylessness we find among socially responsible, successful people, and to undermine one of the chief presuppositions of the ecological movement: that joy is related to the environment, and to nature.

In short, the best way to promote a good cause is to provide a good example. One ought not be afraid that the example will go unnoticed. For example, Albert Schweitzer hid himself in Africa, but his public relations prospered and so did the sale of his books.

So much for utopias. My next concern is with how to get nearer to our utopias. I shall take up only one aspect: the relation between personal lifestyle and teaching.

The Lifestyle of Environmentalists

Joy is contagious. If we only talk about the joys of a good environment, though, it is of little avail.

I know that many *have* turned their backs on more lucrative careers and on a life of security cultivating well-established sciences. This is not enough, however. Life should manifest the peaks of our value priorities. Working for a better environment is, after all, only of instrumental value. We remain on the level of techniques. What criterion shall we use to follow the lead of our personal priorities? We do have one that is underrated among conscientious, responsible people: joy.

Joy According to “Pessimistic” Philosophers

Suppose someone openly adhered to the doctrine that there cannot be too much cheerfulness under any circumstances—even at a funeral. The sad truth is, I think, that he or she would be classified as shallow, cynical, disrespectful, irreligious, or mocking.

Søren Kierkegaard is an important figure here. He *seems* to take anguish, desperation, a sense of guilt, and suffering as the necessary, and sometimes even sufficient, condition of authentic living, but he also insists upon continuous joy as a condition of living. Whatever is done without joy is of no avail. “At seventy thousand fathoms depth,” you should be glad. At seventy thousand fathoms, one should retain “a joyful mind.” He sometimes calls himself Hilarius, the one permeated with *hilaritas* (the Latin word for cheerfulness).

Dread is the technical existentialist word for the kind of anxiety that opens the way to a deeper understanding of life. According to Heidegger (another hero of modern pessimism), dread is not an isolated sensation of a negative kind. The mind is in a complex state in which dread cannot exist without joy; that is, one who thinks he has the dread experience but lacks joy, suffers from an illusion. Dread has an internal relation to joy.

Our problem is not that we lack high levels of integration (that is, that we are immature and therefore joyless) but rather that we glorify immaturity. Do the most influential philosophers of our time and culture represent high degrees of maturity and integration? I have in mind not only Heidegger, Sartre, Kierkegaard, and Wittgenstein, but also Marx and Nietzsche. Tentatively, I must answer no. There are lesser known but perhaps more mature philosophers, like Jaspers and Whitehead.

Should the world’s misery and the approaching ecocatastrophe make one sad? My point is that there is no good reason to feel sad about all this. According to the philosophies I am defending, such regret is a sign of immaturity; the immaturity of unconquered passiveness and lack of integration.

The remedy (or psychotherapy) against sadness caused by the world’s misery is to do something about it. I shall refrain from mentioning Florence Nightingale, but let me note that Gandhi loved to care for, wash, and massage lepers; he simply enjoyed it. It is very common to find those who

constantly deal with extreme misery to be more than usually cheerful. According to Spinoza, the power of an individual is infinitely small compared with that of the entire universe, so we must not expect to save the whole world. The main point—which is built into the basic conceptual framework of Spinoza's philosophy—is that of activeness. By interacting with extreme misery, one gains cheerfulness. This interaction need not be direct. Most of us can do more in indirect ways by using our privileged positions in rich societies.

There are clear reasons for us not to concentrate all our efforts directly on extreme miseries, but rather to attack the causes, conditions, and factors indirectly contributing to this misery and, just as important, to encourage the factors that directly cause or facilitate the emergence of active (and therefore cheerful) work to alleviate misery.

Behind the prevailing widespread passivity found throughout the world is a lot of despair and pessimism concerning our capacity to have a good time. We tend to enjoy ourselves (except during vacations) in a private world of thoughtlessness, well insulated from the great issues of the day.

One of the strangest and next-to-paradoxical theses of Spinoza (and of Thomas Aquinas and others) is that knowledge of evil, or of misery, is inadequate knowledge. In short, there is no such object, whereas there is something good to know. Evil is always an absence of something, a lack of something positive. Their theory of knowledge holds that objects of knowledge are always something. When you say that you see that the glass is transparent, what you see, for example, is a red rose behind the glass. You do not see the transparency, which is not an object of perception.

In any event, while I do not think that the positive nonexistence of evil things can be shown without a great deal of redefinition of words, I nevertheless do not consider this view totally ridiculous. Like so many other strange points of view in major philosophies, it has an appeal and points in the right direction without perhaps stating anything clearly in the “scientific” sense.

Spinoza on Joy

Spinoza operates with three main concepts of joy and three of sorrow. *Laetitia*, *hilaritas*, and *titillatio* are the three Latin terms for the positive emo-

tions of joy. Translations of these terms are, to a surprising degree, arbitrary, because their function in Spinoza's system can be discovered only by studying the complex total structure of his system. Isolating one concept from the others is not possible. Moreover, the system is more than the sum of its parts. From a strict, professional point of view, you must take it or leave it as a whole.

I translate *laetitia* as "joy"—a generic term comprising several important subkinds of joy. The main classification of joy is into *hilaritas* (cheerfulness) and *titillatio* (pleasurable excitement). *Hilaritas* is the serene thing, coloring the whole personality, or better, the whole world.

Spinoza defines *hilaritas* (cheerfulness) as a joy to which every part of the body contributes. It does not affect just a subgroup of functions of the organism, but each and every one, and therefore the totality of the organism. Spinoza contends that there cannot be too much of *hilaritas*.

The other main kind of joy, *titillatio*, affects a subgroup of the parts of the body. If very narrowly based and strong, it dominates and thereby inhibits the other kinds of joy. Accordingly, there can be too much of it. Here Spinoza mentions love of money, sexual infatuation, and ambition. He also mentions other sources of joy that are all good in moderate degrees if they do not hamper and inhibit one another.

A second classification of joy is that derived from contemplation of our own achievement, creativity, or—more broadly—activeness, and the joy derived from contemplation of causes of joy outside of us. The first he calls satisfaction, or repose in ourselves (*acquiescentia in se ipso*); the other he calls *amor*. There can be too much of them, however, because they sometimes refer to parts, not to the whole.

According to Spinoza, what refers to the whole of the body also refers to the whole of the conscious mind, and to the whole of the universe or, more generally, to the whole of Nature, insofar as we know it. This is understandable from Spinoza's so-called philosophy of identity, which proclaims the ultimate identity of thought and matter, and from his theory of knowledge, which relates all our knowledge of the world to interaction with the body—just as biologists tend to do today.

Lack of self-acceptance (*acquiescentia in se ipso*) accounts for much of the passivity displayed by an important sector of the public in environmental conflicts. Many people are on the right side, but few stand up in public

meetings and state how they, as private citizens, feel about the pollution in their neighborhoods. They do not have sufficient self-respect, respect for their own feelings, and faith in their own importance. They themselves do not have to fight for the changes; it is only necessary that they state their feelings and positions in public. A small minority will then fight with joy—supported by that considerable sector of people.

The distinction between pervasive joy (covering all) and partial joy need not be considered an absolute dichotomy but rather exists in degrees. Joy may be more or less pervasive. Clearly, higher degrees of joy require high degrees of integration of the personality, and high degrees of such integration require intense cultivation of the personal aspect of interaction with the environment. It requires a firm grasp of what we call value priorities—which Spinoza would call reality priorities, because of his resolute location of value among “objective” realities. Spinoza distinguishes degrees of realness and perfection. That which is perfect is complete. Integration of personality presupposes that we never act as mere functionaries or specialists but always as whole personalities conscious of our value priorities, and of the need to manifest those priorities in social direct action.

The specific thing to be learned from Spinoza and certain modern psychologists is, however, to integrate the value priorities themselves in the world. We tend to say “the world of facts,” but the separation of value from facts is, itself, mainly due to an overestimation of certain scientific traditions stemming from Galileo, traditions that confuse the *instrumental* excellence of the mechanistic worldview with its properties as a whole philosophy. Spinoza was heavily influenced by mechanical models of matter, but he did not extend them to cover “reality.” His reality was neither mechanical, value-neutral, nor value-empty.

This cleavage into two worlds—the world of fact and the world of values—can theoretically be overcome by placing, as Spinoza does, joys and other so-called subjective phenomena into a unified total field of realities. This, however, is too much to go into here. I am more concerned with the place of joy among our total experiences. The objectivist conception of value is important, though, in any discussion in which technocrats tend to dismiss cheerfulness in the environment as something “merely subjective.”

Spinoza makes use of the following short, crisp, and paradoxical definition of joy (*laetitia*): "Joy is man's transition from lesser to greater perfection." Somewhat less categorically, he sometimes says that joy is the affect by which, or through which, we make the transition to greater perfection. Instead of "perfection" we may say "integrity" or "wholeness."

Of central importance, in my view, is the difference between these formulations and subjectivistic ones proclaiming that joy only *follows* or *accompanies* these transitions to greater perfection. For Spinoza the relation between joy and an increase in perfection is an *intrinsic* one. That is, the two can be separated only conceptually, not in practice. Such a realistic view of joy suggests that joyfulness, like color, attaches to and forms part of objects, but of course changes with the medium, and must be defined in terms of interaction with organisms. Joy is linked intrinsically to an increase in perfection, an increase in power and virtue, an increase in freedom and rationality, an increase of activeness, an increase in the degree to which we are the cause of our own actions, and an increase in the degree to which our actions are understandable by reference to ourselves. Joy is thus a basic part of the conceptual structure of Spinoza's system.

An increase in power is an increase in the ability to carry out what we sincerely strive to do. Power does not presuppose that we coerce other people; a tyrant may be less powerful than some poor soul sitting in prison. This concept of power has a long tradition and should not be forgotten. What we strive to do is defined in relation to what actually happens; thus "to save the world from pollution" is not something anyone strives to do, but is rather a kind of limited effort to save the things around us.

Cheerfulness (*bilaritas*) requires action of the whole integrated personality and is linked to a great increase in power. In the absence of joy, there is no increase of power, freedom, or self-determination. Thus, lack of joy should be taken seriously, especially among so-called responsible people furthering a good cause. The joy of work, like any other partial joy, can dominate and subdue other sources of joy to such an extent that the overall result is stagnation or even a decrease in power. In Spinoza's terminology, this means a loss of perfection or integration, and increased difficulty in reaching a state of cheerfulness.

"To be happy" is often equated with enjoying oneself, laughing, or

relaxing in the sense of being passive. Enjoying oneself by becoming intoxicated, which decreases the higher integrations of the nervous system, results in resignation. It means giving up the possibility of joyfulness of the whole person. Cheerfulness, in the Spinozistic sense, may not always be expressed in laughter or smiling, but in concentration, presentness, activeness.

The example of Buddha may illustrate my point. Buddha was an active person but had great repose in himself (*acquiescentia in se ipso*). Long before he died he is said to have reached Nirvana, which, properly interpreted within Mahāyāna Buddhism, involves supreme integration and liberation of the personality, implying bliss or (in the terminology of Spinoza) *hilaritas*. Research by F.Th. Stcherbatsky (1974) and others concerning the term *dukkha* (conventionally translated as “pain”) shows that so-called pessimistic Buddhism also has a doctrine of joy as a central aspect of reaching freedom in Nirvana.

One may say, somewhat loosely, that what we now lack in our technological age is repose in oneself. The conditions of modern life prevent the full development of that self-respect and self-esteem that is required to reach a stable high degree of *acquiescentia in se ipso* (the term *alienation*, incidentally, is related to the opposite of *in se*, namely, *in alio*, wherein we repose in something else, something outside ourselves such as achievement in the eyes of others—we are “other directed”).

Humility, as defined by Spinoza, is sorrow resulting from contemplation of one’s own impotency, weakness, and helplessness. A feeling of sorrow always involves a decrease of perfection, virtue, or freedom. We can come to know adequately more potent things than ourselves. This gives us such joy because of our activeness in the very process of knowing them. The realization of our own potency, and our active relation to the more potent, results in joy. Thus, instead of humility (which is a kind of sorrow) there are three kinds of joy: first, that resulting from the contemplation of our own power, however small, which gives us *acquiescentia in se ipso*, self-respect and contentedness; second, the joy resulting from increased personal, active knowledge of things greater than we are; and third, the joy resulting from active interaction, which, strictly speaking, defines us (as well as other objects or fragments) in the total field of reality (or in Nature, in Spinoza’s terminology).

Adequate knowledge always has a joyful personal aspect because it reveals a power (never a weakness) in our personality. In Spinoza's words:

Therefore, if man, when he contemplates himself, perceives some kind of impotency in himself, it does not come from his understanding himself, but from his power of action being reduced. . . . To the extent that man knows himself with true rationality, to that extent it is assumed that he understands his essence, that is, his power.

We say with some haughtiness that Spinoza belongs to the age of rationalism, to the pre-Freudian, pre-Hitler era. Nevertheless, Spinoza in many ways anticipated Freud, and his term *ratio* must not be translated by our term *rational* or *rationality* unless we immediately add that his *ratio* was more flexible and was internally related to emotion. Rational action for him is action involving absolutely maximal perspective—that is, where things are seen as fragments of total Nature—which is, of course, not what we tend to call rational today. Spinoza was not an “intellectual” in the sense of modern Anglo-American social science.

Pity and commiseration (*misericordia* and *commiseratio*) are not virtues for Spinoza, and even less so for Gandhi, although they may have some positive instrumental value. Spinoza says that “commiseration, like shame, although it is not a virtue, is nevertheless good in so far as it shows that a desire for living honestly is present in the man who is possessed with shame, just as pain is called good in so far as it shows that the injured part has not yet putrefied.” A modest function, but nevertheless of instrumental value! Tersely, Spinoza adds that “a man who lives according to the dictates of reason strives as much as possible to prevent himself from being touched by commiseration.” People who are crippled are among those who practically unanimously agree.

Commiseration is sorrow and therefore is, in itself, an evil. According to certain conventional morality, a duty should be carried out even if there is no joy. This might suggest that we had better disregard our duties if we are not permeated with joy. This interpretation seems to me rather fanatical, however, except when one adds a kind of norm concerning the high priority of developing the *capacity* for joy. “Alas! I cannot do my duty today because it does not fill me with joy. Better to escalate my efforts to experience joy!” Spinoza does not stress the remedy to the above situation—

greater integration—but he presupposes it. The case of humility shows how *ratio* changes sorrows to joys: Spinozistic psychoanalysis tries to loosen up the mental cramps that cause unnecessary pain.

Freud worked with the tripartition of id, ego, and superego. The superego, through its main application in explaining neuroses, has a rather ugly reputation: it coerces the poor individual to try the impossible and then lets it experience shame and humility when there is no success. In Spinoza's analysis, the *ratio* also functions as a kind of overseer, but its main function is rather one of consolation. It directs our attention to what we can do rather than what we cannot, and eliminates feelings of necessary separation from others; it stresses the harmony of rational wills, and of well-understood self-interests.

A major virtue of a system like Spinoza's is the extreme consistency and tenacity with which consequences, even the most paradoxical, are drawn from intuitively reasonable principles. It meets the requirements of clarity and logic of modern natural science. The system says to us: "You do not like consequence number 101? But you admit it follows from a premise you had admitted. Then give up the premise. You do not want to give up the premise? Then you must give up the logic, the rules of inference, you used to derive the consequence. You cannot give them up? But then you have to accept the consequence, the conclusion. You don't want to? Well, I suppose you don't want clarity and integration of your views and your personality." The rationality of a total view like Spinoza's is perhaps the only form of rationality capable of breaking down the pseudorational thinking of the conservative technocracy that currently obstructs efforts to think in terms of the total biosphere and its continued blossoming in the near and more remote future.

The Philosophical Premises of Environmentalism

Personally, I favor the kind of powerful premises represented in Chinese, Indian, Islamic, and Hebrew philosophy, as well as in Western philosophy—namely, those having the so-called ultimate unity of all life as a slogan. They do not hide the fact that big fish eat small ones, but stress the profound interdependence, the functional unity, of such a biospheric magnitude that nonviolence, mutual respect, and feelings of identification are always potentially there, even between the predator and its so-

called victim. In many cultures, identification is not limited merely to other living things but also includes the mineral world, which helps us to conceive of ourselves as genuine surface fragments of our planet, fragments capable of somehow experiencing the existence of all other fragments: a microcosm of the macrocosm.

Another idea, right at the basis of a system from which environmental norms are derivable, is that of self-realization. The mature human individual, with a widened self, acknowledges a right to self-realization that is universal, and seeks a social order, or rather a biospherical order, that maximizes the potential for self-realization of all kinds of beings.

Levelheaded, tough-minded environmentalists sometimes stress that it is sheer hypocrisy to pretend that we try to protect nature for its own sake. In reality, they say, we always have the needs of human beings in view. This is false, I think. Thousands of supporters of unpolluted so-called wastelands in northern Labrador wish simply that those lands should continue to exist as they are, for their own sake. They are of intrinsic, and not only instrumental, value. To invoke *specifically* human needs to describe this situation is misleading, just as it is misleading to say that it is egotistical to share one's birthday cake with others because one *likes* to share with others.

Self-realization is not a maximal realization of the coercive powers of the ego. The "self" in the kinds of philosophy I am alluding to is something expansive, and the environmental crisis may turn out to be of immense value for the further expansion of human consciousness.

In modern education the difference between a world picture—or better, a world model—and a straightforward description of the world is slurred over. Atoms, particles, and wave functions are presented as parts or fragments of nature, even as *the* real, objective nature, as contrasted with human projections into nature—the "colorful" but subjective nature.

So-called physical reality, in terms of modern science, is perhaps only a piece of abstract mathematical reality—a reality we emphatically do not live in. Our living environment is made up of all the colorful, odor-filled, ugly or beautiful details, and it is sheer folly to look for an existing thing without color, odor, or some other homely quality. The significance of this subject is a broad cultural one: the rehabilitation of the status of the immediately experienced world, the colorful and joyful world. *Where* is joy in the world of fact? Right at the center!

Politics and the Ecological Crisis: An Introductory Note

“Everything is politics!” This was a powerful slogan in Western Europe during the 1960s, the years of student revolts. This slogan meant for the students that the emerging environmental movement had to be politicized. No real progress toward solving the ecological crisis would be made unless ecological problems were seen as questions of policy. Politicians had to be warned that they would be voted out of office if they attempted to block antipollution and other ecological legislation. With no powerful pressure groups advocating strong environmental legislation, most politicians felt that they could not risk moving from vague environmental promises to strong, concrete proposals. Although the student radicals underestimated important aspects of the classical “unpolitical” conservation movement, nevertheless they did have a beneficial influence on politically activating mere “nature lovers.”

In Eastern Europe, the international ecological movement was inevitably politicized, but in a wrong way. Political leaders in these countries interpreted it, or pretended to interpret it, as an effort to undermine centralized industrial projects, and thus as a subversive activity. Consequently, even less was accomplished by the movement than in Western Europe.

It is important to note that Rachel Carson’s political *Silent Spring* (1962), from which we date the beginnings of the international deep ecology movement, insisted that *everything*, every aspect of society, not just politics, would have to be changed. The controversy that Carson’s book

This article was reprinted with permission from *ReVision: A Journal of Consciousness and Transformation* (Washington, D.C.: Heldref Publications) 13 (Spring 1991): 142–46.

elicited brought to light the issue of the covert cooperation between the U.S. Department of Agriculture and the pesticide industry. The uproar stemming from Carson's charges against the pesticide industry made it clear not only that very powerful pressure groups would influence votes against necessary changes in the direction of responsible ecological policies, but also that those groups had the clout to monopolize the mass media with counterinformation. For example, they claimed that there was no reason to ask for significant changes because the environmentalists were exaggerating; that new technologies, various natural science projects, and a few environmental laws were all that was needed to solve environmental problems and then they could get back to business as usual.

Consequently, it was not deemed necessary to hold discussions and engage in dialogues concerning the fundamental philosophical issues surrounding the ecological crisis. It was not necessary to question the deepest premises of the way of life in the rich, consumerist nations. Understanding of Carson remained at a shallow level from the point of view of premise/conclusion relations.

Ecologically beneficial technologies, such as solar energy, were invented, but they could not be introduced on the large scale required without strong political backing, and that was unavailable. As the tremendous social and political obstacles to the needed ecological changes were exposed, unhappily only a small minority of people in a minority of countries stood firmly behind the necessity to make these changes. Unfortunately, that is the situation even today.

It is appropriate to talk of the "deep" and the "shallow" ecology movements as being characterized by marked differences in argumentation patterns. The deep ecology argumentation pattern was generally rejected by industry and most of the public as leading to a blind alley, and as being pernicious because of its alarmist and even subversive character. I refer to this as an *argumentation pattern* because the differences between the deep and the shallow movements are not always discernible if we focus only on individual arguments. For example, members of the deep ecology movement support many of the arguments made by shallow ecology proponents for certain changes, such as the move toward technologically "green" products.

Because of the multiplicity of political parties and the relative ease with which they can be formed in Western Europe, the politicization of the

ecology movement is easier to trace there than in the United States. It would be wrong to suppose, though, that supporters of the deep ecology movement in the United States have been politically passive. Their politics have generally taken the form of infiltrating and influencing the two major political parties, the Democrats and the Republicans. There also have been occasional political victories, such as the passing of laws requiring major industries to choose less ecologically sensitive areas in which to locate new factories.

Ecological Sustainability

Moving now to the more philosophically fundamental issues of ecological politics, I wish to deal with the question, What are the *means* and what are the *ends* in the political fight for responsible ecological policies? With regard to ends, I propose the following axiom: *Long-range local, district, regional, national, and global ecological sustainability is the criterion of ecologically responsible policies as a whole.* Unsustainable policies can be allowed only as necessary ad hoc evils, but that tolerance must be only temporary. When the norm of “sustainability” is used in the following discussion, it refers to the sense of encompassing sustainability as described in the above axiom.

It is now largely accepted among politicians that some sort of sustainability is a necessity. Therefore, one should be prepared for usages of the term that are both much narrower and much weaker than the one suggested here. It actually may mean very little when a government or government-dominated agency declares a policy ecologically sustainable. The same holds for the term *biodiversity*. “Maximize biodiversity!” is a very strong norm as promoted by conservation biologists, and it is derivable from our axiomatic norm of sustainability.

The goal of ecological sustainability is, however, only one of the goals of a green society. A great deal of valuable literature has been devoted to outlining the characteristics of a green society, and it is important to retain a vision of what we would consider a perfect green society. Among the proponents of the ideals of a green society, there is fairly substantial agreement that an established green society will have reached three main goals, of which only one is ecological sustainability. The other two are the goals of the peace movement and the goals of the social justice movement (if we al-

low the term *social justice* to have a broad meaning that includes the elimination of large-scale human starvation and subjugation).

It is often asked, What are the politics of the deep ecology movement? Do not deep ecology supporters have a political program? These are badly posed questions, for there is no green-party political program derivable from the views that the supporters of the deep ecology movement hold more or less in common.¹ Furthermore, the movement exists in many countries, and those countries have different traditions and various political systems.

Considering the accelerating rate of irreversible ecological destruction worldwide, I find it acceptable to continue fighting ecological unsustainability, whatever the state of affairs may be concerning the other two goals of green societies. I find this to be so despite the completely obvious requirement that there needs to be significant progress toward the goals of the peace and social justice movements in order fully to reach ecological sustainability. Because of the unique features of the ecological crisis, many political initiatives and goals relating to its solution must proceed with only minor reference to the ultimate goals of a green society. The “greening” of policies must be constantly kept in mind, but not necessarily the ultimate steps toward a perfect green society.

If there is any doubt concerning the need to act quickly on a number of ecological fronts, consider, for example, the depletion of our forests. The World Watch Institute’s proposed worldwide reforestation project (1988) estimates that it will take an expenditure of between five and ten billion dollars from the year 2000 onward to save and replace our forests. We are now even more clear in our understanding of the differences between a forest and a species-poor plantation of trees, and know that the costs of reforestation will be even higher than originally anticipated. The rich countries, of necessity, will have to bear most of the burden of these costs, if it is to be done at all.

In the early 1970s, there was substantial agreement on a number of features of green societies—for example, decentralization and the establishment of strong, fairly self-determining local communities. It is now clear, though, that in areas of the world where pollution and other environmental problems are still minimal, the people who hold influence or power tend to favor the kinds of development that people in more polluted areas increas-

ingly resist. To save what can still be saved in areas contributing only moderately to the ecological crisis, political institutions in larger, more polluted areas must pressure the smaller, less-polluted and damaged areas to adopt restrictions on ecologically damaging practices. The anger, indignation, and fierce resistance of the more local political institutions underscore the present deep-seated pressures to continue to “develop” along the lines of the most exploited areas. I put the word *develop* in quotation marks because it is development inconsistent with the requirement of ecological sustainability. The unfortunate necessity of occasional coercion can be justified in part by an application of the norm of *universalizability* (i.e., that if ecological sustainability is a necessity for any area, then it is a necessity for all areas).

Classes of Ecological Unsustainability

Let us suppose that we were able to group areas into three classes: (1) those with a level of unsustainability considerably below the average, (2) those with roughly an average level of unsustainability, and (3) those considerably above the average level of unsustainability. Let us further suppose that a political party in the first class argued that certain unecological policies could justifiably be pursued because their implementation would merely bring that area nearer the average level of unsustainability. This political party probably assumed that others in the first class would not do the same, for if they all did, it would significantly increase the average unsustainability, a situation contrary to what all classes now agree must be avoided. In this case, people in the first class are asked to follow a norm of forced status quo in terms of their degree of unsustainability, that is, a forced limitation on their self-determination in these matters. This course of action would protect those areas in the third class so that people there would not have to go through a severe period of transition toward sustainability. Thus, a thoughtless increase in unsustainability would be prevented, as well as the resulting painful change of direction. This is not a question of arbitrary coercion but rather of sanctions drawn within the limits of carefully considered legislation.

The above line of reasoning and proposed solution would, no doubt, be resisted within some “radical” environmental circles. The ghost of ecologi-

cal dictatorship is liable to be raised, as well as that of undesirable hierarchical sociopolitical structures. Therefore, it is important that as many people as possible articulate clearly the means and goals of policies that lead to a decrease of unsustainability. One may justifiably object to the above classification scheme on the grounds that some areas exist that have attained full sustainability (i.e., human and other activities do not result in a decrease in the full richness and diversity of life-forms in the areas). Such areas, though, are few and small; not even Antarctica qualifies as fully sustainable. The objection may also be raised that it is more important to apply such a classification scheme to states, countries, and other political and administrative units. If we neglected geographical areas, however, the Earth's natural subdivisions would be ignored. For example, the eruption of Mount Saint Helens decreased the richness and diversity of life-forms over a large area encompassing several political jurisdictions; it went from class 1 or 2 to class 3 in a very short time. Thus, the geographical point of view of the Earth is of some importance in devising these classification schemes. Further, the biodiversity of the Mount Saint Helens areas should be restored—in short, we wish to protect the richness and diversity of life whether or not decreases in richness and diversity are caused by human beings. Another example is the Barents Sea, which is now a large class 3 area. In this case, the “criminal” policies of several countries, together with the irresponsibility shown by certain occupational groups, have severely decreased the populations of various species of fish. It is open for discussion whether certain “natural” processes are also at fault, but the point of view taken is that, in the end, we wish the Barents Sea to recover.

At a national level, interesting conflicts along the above lines arise. If Norwegian politicians agree to increased gas production from the North Sea area, it will lead to an increase in Norwegian production of atmospheric carbon dioxide. If this happens, Norway will not be able to stay within the limits its government has promised the world it will not exceed. The government claims that the carbon dioxide production of an area larger than Norway, namely that of the European Common Market, and, of course, the world as a whole, will diminish as a result of the North Sea production. The government points out that because Norway would be exporting nearly all the gas, the importing countries would reduce their more ecologically unsound energy production from coal. If this were indeed the case, the in-

creased development of the Norwegian gas industry seems to be a step toward less unsustainability in a wider global area.

Several relevant arguments can be offered against the government's decision, however. First, long-range policy must be that of stabilization and reduction of the use of energy and, in particular, energy produced by non-renewable resources. Second, the energy used to develop Norway's gas industry and to transport the gas to foreign countries would be considerable. If such foreign countries were to indicate to Norway that they had a coal-reduction program, and were then to ask for gas to replace a certain percentage of their coal, the ecological situation would be quite different. The departments of foreign affairs must be drawn into these ecological considerations. At present, they are mainly preoccupied with commercial matters.² From the point of view of the deep ecology movement, both a trend toward centralization of political decisions and a trend toward decentralization must be envisaged. The policies of local communities, in many areas of ecological conflicts, must be controlled by regional and national political authorities. These again, to a much higher degree, must be controlled by institutes that are global (not only international) in scope. Nevertheless, many ideals of strong local communities formulated in the 1960s and 1970s can be retained.

Green Politics

The building of a green party at the national level is occurring only in the relatively few "democratic" countries. It is necessary for green politics to spread to other parts of the world. The content of the various green party programs will have to adapt to differing political and ecological situations and will inevitably show great differences. Internal strife can be kept to a minimum by being clear about the differences between the fundamentalist and the pragmatist positions in green parties. Fundamentalists take a hard stand on ecological issues; pragmatists are willing to consider compromises for social justice's sake, for example. Some compromises will have to be made. In Norway, fundamentalism has been strong, although there is a willingness to maintain the welfare profile of the political left. The following is a short résumé of the Norwegian political program as one example of green politics in a First World country.

The publication describing the Norwegian green program consists of ten chapters, the first of which outlines the "basic values." The first two sentences read: "We who are alive today have an obvious responsibility, in relation to future generations, for other life-forms and for the global community. The Greens wish to leave behind them an Earth at least as rich and diverse as the one we humans have inherited." The phrase "global community" does not mean the same thing as "human community"; rather, it refers to the coexistence of *all* living beings in the Earth's ecosphere. Richness and diversity are intended to include deep human cultural diversity as well. Clearly, it is implied that we human beings have many special obligations toward our fellows.

Twelve points are then listed that outline the Greens' basic tenets, one of which is that current rates of economic and social development can proceed only at the cost of seriously degrading the quality of life. Other tenets hold that social and global solidarity implies reversing the trend toward growing differences between rich and poor; that increase in the material standards in the rich countries must be reversed; and that bureaucracy and the power of capital must be reduced. These reversals are the inevitable consequence of emphasizing certain basic human values, not of achieving them as independent goals in themselves.

Other basic values in the Norwegian green program include a technology adapted to nature and human beings, cultural diversity, viable local communities, and a respect for nature and life. Other key issues include an increase in the minimum wage; the redistribution of wealth; decentralization and the support of small organizations; the participation of children and the old in productive work; ecological architecture that gives small children access to free nature, not just parks; transfer of military resources to environmental tasks; global cooperation and security; and the support of groups who work for alternative kinds of societies.

The above list of key issues provides an impression of the comprehensiveness of the Norwegian Green party program. Like the programs of most European green parties, the Norwegian program tries to include the main concerns of the three great social movements of our time: the peace movement, the social justice movement, and the ecology movement. This is a formidable task and requires great discipline. In my opinion, the extreme positions within the three movements cannot all be accommodated.

For example, antiracist feelings are strong in Norway, resulting in liberal immigration policies for Third World countries. Unfortunately, these feelings often overpower ecological considerations. Because today's lifestyles in the richer countries ensure gigantic waste per capita, compared to those of the poor countries, every immigrant from a poor to a rich country creates more ecological stress. It is clear that the children of immigrants will likewise adopt the fatal consumption patterns of rich countries, thereby further adding to the ecological crisis. In my estimation, green parties, including the Norwegian one, do not sufficiently see that these feelings of solidarity and compassion, especially for children, demand a tenfold increase in contributions to Third World countries to aid in their daily fight against devastating hunger and degrading torture as a more ecologically sound solution. The main driving force of the deep ecology movement, as compared with the rest of the ecological movement, is that of identification, and thereby solidarity, with all life. Human beings are our nearest, in terms of identification with all life, and green parties should include political plans for participation in the fight against world hunger and for basic human dignity. A green program in the richest countries should include a proposal to help poor countries that are invaded by immigrants from still poorer countries. It is likely that such phenomena will increase in the future. Immigration policies must be seen in a global context.

It is a widespread practice to accuse politicians, and the heads of political parties, of being weak in their support of environmental matters, of adopting green slogans but never proposing strong actions to solve the ecological crisis. To act, party politicians must have voter support, and it is fairly clear that powerful pressure groups, whose well-organized, effective action supports special interests and influences votes, will fight any decisive ecological program. Politicians will not propose programs or projects that are unacceptable to the leadership of major pressure groups. Special-interest-group democracy, as it functions today, prevents major changes in ecological policies. Therefore, people need help to recognize the inconsistencies between statements made for public consumption and political effect on the one hand and actual behavior on the other. For example, politicians may profess strong environmental concerns but, through their actions, be responsive to special-interest groups that prevent responsible ecological policies from being adopted, or even proposed, by the main po-

litical parties. What everyone can do in this situation is to spend some time analyzing how he or she, directly or indirectly, supports the continuation of local, regional, or national policies that are ecologically irresponsible.

The special role of the deep ecology movement in political life has several aspects. It rejects the monopoly of narrowly human and short-term argumentation patterns in favor of life-centered, long-term arguments. It rejects the human-in-environment metaphor in favor of a more realistic human-in-ecosystems and politics-in-ecosystems one. It generalizes most ecopolitical issues—from “resources” to “resources for . . .”; from “life quality” to “life quality for . . .”; from “consumption” to “consumption for . . .”—and in “for . . .” we insert “not only for human beings, but for other living beings.”

Supporters of the deep ecology movement have, as a main source of motivation and perseverance, a philosophical-ecological total view (an ecology) that includes beliefs concerning fundamental goals and values in life, which they apply to political argumentation. That is, they use *not only* arguments of the usual rather narrow kind, but also arguments from the level of a deep total view *and* with the ecological crisis in mind. Supporters of the deep ecology movement do not consider the ecological crisis to be the only global crisis; there are also crises of social injustice and of wars and organized violence. There are as well, of course, political problems only distantly related to ecology. Nevertheless, the supporters of the deep ecology movement have something important to contribute to the solution of these other crises: they provide an example of nonviolent activism that will be needed in the years to come.

The Politics of the Deep Ecology Movement

Some Key Slogans of the Deep Ecology Movement

By definition, what is called the deep ecology movement explicitly bases its activity on philosophical or religious premises.¹ These can differ considerably without disturbing the fairly uniform character of the aims of the movement's supporters. I shall quote some statements typical of those environmentalists who support what is now often called deep ecology.

1. "Earth First!" This is a slogan expressing the opinion that the maintenance of the richness and diversity of life on our planet must be considered a first-priority goal. It supersedes the goal of a maximum number of people with a maximum standard of living. It supersedes any other goals but implies the maintenance of a population of human beings sufficient for cultural diversity and a high quality of life. This is accepted because it is necessary for realization of the maintenance goal for the Earth itself.
2. "Why more than 100 million human beings on Earth?" This rather rhetorical question is posed to familiarize people with the conception that the present-day size of the human population has a tremendously negative impact on conditions for life on the planet and that a long-term plan for substantial reduction would not threaten life quality. Of course, the plan would have to be consistent

This article was reprinted with permission from *Wisdom in the Open Air: The Norwegian Roots of Deep Ecology*, edited by Peter Reed and David Rothenberg (Minneapolis: University of Minnesota Press, 1993), 82–99.

with the basic rights of the human *as a living being* and never resort to crude coercion.

3. "An injury to where I belong is an injury to me!" This slogan reminds us that the human self is a part of many gestalts. The skin is not our limit. Therefore, the term *environment* is not popular among some supporters of deep ecology, because an environment may imply the separation of an organism from its surroundings and, as such, does not foster feelings of participation, identification, or expanded notions of the self.
4. "Animals, plants, and landscapes have intrinsic or inherent value independent of narrow human usefulness." This slogan is used to undermine our tendency to rely only on short-term, opportunistic economic and health arguments when supporting the fight against pollution, resource depletion, the extermination of species, the destruction of ecosystems, and other calamities for long-run survival and well-being. The slogan is intended to make us fight also for the planet and its phenomenal qualities.
5. "Simple in means, rich in ends!" Human interference in the eco-sphere can be reduced to tolerable levels only if people, and especially those of us in the industrial states, adopt lifestyles requiring simpler material means. This is compatible with, or even favorable toward, richness of goals.
6. "Increase the sensitivity to and appreciation of what there is enough of for all!" This instructive slogan fights against the confusion of real value with market price: a way to maximize our ability to derive deep satisfaction from the goods of which there still are, or could be, enough. The current lifestyle of people in the industrial societies cannot become a global lifestyle without irreversible and colossal destruction of the conditions of life on Earth.
7. "Mother Earth has no use for modern war!" Modern armaments and wars are ecological catastrophes. The peace movement is not just a movement on behalf of human beings. Deep ecology embraces movements for disarmament and for nonviolent solutions of conflicts.

Philosophers of the deep ecology movement may be said to be people who never found biological, political, or other arguments that undermined those attitudes implicit in childhood, whereas those in the shallow envi-

ronmental movement seem to have fallen sway to the times, letting narrow human interests dominate: other life-forms are seen as beings only to be used, enjoyed, and managed by human beings. From these hints about what supporters of deep ecology think and feel, I shall move on to discuss some political aspects of the movement.

The Three Poles of the Political Triangle and the Limitations of Triangular Analysis

Ecopolitics is a widely used term in northern Europe. Sometimes it is used synonymously with what I would call “good or responsible ecopolitics.” I prefer to use it, like *ecophilosophy*, as a fairly neutral term for “politics with reference to ecology” or “political aspects of ecological problems.” Instead of “good or responsible ecopolitics” I use the term *green politics*. There are five general points about green politics that I would like to mention here:

1. One convenient way of naming the main contemporary currents and parties in industrial countries is to present a political *triangle*, with each point representing one of three main political poles (figure 3). The colors used to label the poles are familiar symbols in European discussion.

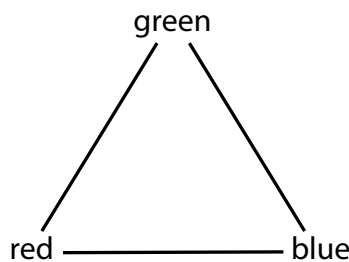


Figure 3. The Political Triangle

It is essential for supporters of green policies to maintain and show that they cannot be placed on the line between red and blue. A second dimension is needed. Roughly 10 percent of Swedish and Norwegian voters feel at home around the green pole. It is also essential to keep in mind that political abstractions such as green, red, and blue are dangerous if taken as being merely points. They are more like *magnetic* poles: dynamic pulls in more or

less singular directions. They must be distinguished, then, from particular parties or platforms themselves, which are definable in relation to the poles.

So we can try circles (figure 4). If circles are used, they are overlapping. Most supporters of green politics see a greater affinity between green and red than between green and blue, but from a broad historic and systematic point of view it is prudent to let the circles overlap equally, rejecting any quantitative interpretation of the overlapping areas.

Examples of similarity between green and blue include stressing the

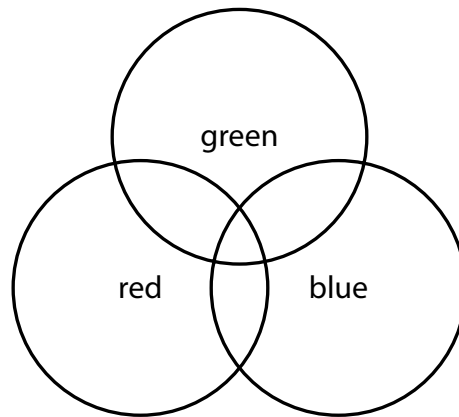


Figure 4. The Political Circles

value of personal enterprise (overlapping the blue private enterprise) and a very high priority of fighting bureaucracy. Similarities between green and red include stressing social responsibility and a very high priority of fighting undesirable ethical, social, and cultural consequences of the unrestrained market economy.

Political parties can roughly be located within or along the borders of the political triangle, but more accurately (although still in a rough way, of course) in three dimensions, using an ordinary Cartesian coordinate system (figure 5). Here each “element” (blue, green, and red) is not linearly independent. The essential point, though, is that green is *not merely another point, circle, or dimension*. It is a dynamic wavelike force, an intuition or sudden realization that should affect all points along any shallowly conceived spectrum or frontier of political opinions. Hence the British Ecology Party

makes it clear that its own existence will be rendered unnecessary by its success, as “all parties will in time become more or less ecological” (Porritt 1984: 36).² A quite ecological attitude about one’s own existence!

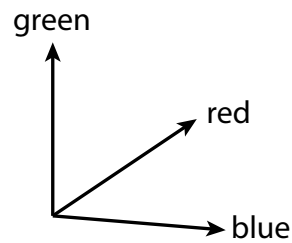


Figure 5. Cartesian Coordinate System

So, probably the most satisfactory diagram would be one that indicates clearly the more dynamic nature of the green influence upon the other two. We may see it as an axis, which pulls the others toward it as asymptotes (figure 6).

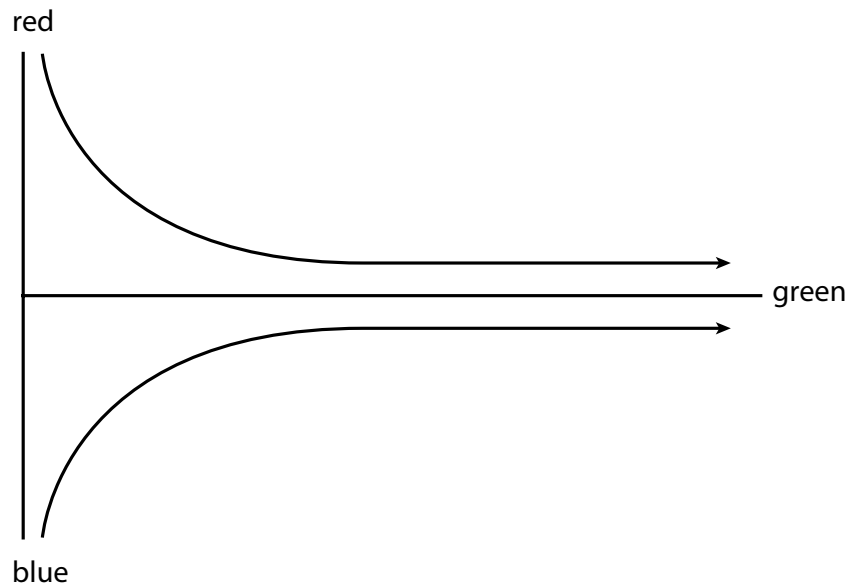


Figure 6. The Political Axis

2. Every political decision has green relevance; as a consequence, green parties must be big enough to have people well versed in each of the major issues. (No single politician can really be well informed on all.) It is not enough to take up the problems that people in general perceive as being typically ecological (nuclear energy, acid rain, etc.).

3. In industrial democracies, the supporters of green policies must keep track of how the politicians of the various parties talk *and vote* on specific matters, evaluating them from the green outlook. Their ecology "score" should be widely publicized. The same holds for party platforms, although experience, at least in Scandinavia, suggests that every party platform can look as if responsible ecological policy is being taken seriously, whereas decisions may turn out to be consistently ungreen.

4. A major part of political debate today is economic. To take part in it, supporters of green politics should try to acquire a clear conception of the main factors of their country's economic system and try to articulate how the system differs from a green economics.

One of the characteristics of green economics is the insistence on distinguishing need from demand on the market. The so-called need for more parking space is a demand that may or may not express a need. There is a need to work not far from home, but public transport may largely decrease the demand for parking space. Demand for luxury foods in a starvation area is practically zero—there is no money available and no market. The maximum demand for foodstuffs is in the richest areas of the world—to feed animals or to fuel industry—but where is the need greatest?

5. People have reason to entertain suspicions about societies planning to implement green policies: do they not ask for still more regulations (laws, coercive rules, etc.) than we already have? The tame answer is "Not necessarily!" To avoid such a tendency, organizers must constantly strive to keep down regulations. A typically blue attitude? Yes and no: private industry is, in spite of its official "free and competitive" nature, shot through with regulations, mostly unknown to the general public but no less coercive for that. The smaller-unit industry of green societies will, because of a less hierarchical power structure, among other reasons, need less regulation. Much depends on change of mentality: the less change in the green direction, the more regulations there will be.

If-Statements and Exponential Growth

Politicians suggesting the wisdom of radical green programs have sometimes been discredited as doomsday prophets. Through the mass media the public was, in the late 1960s and early 1970s, told that there were ecologists predicting catastrophe very soon. As nothing seemed to happen that fulfilled these prophecies, the public was placated.

No well-known ecologist has *predicted* a human-caused ecological catastrophe. By the term *ecologist* I here refer only to trained active researchers in ecology, and I limit my contention to published predictions. (What some ecologists may utter in private I do not pretend to know.) Therefore, it is not today a high priority to discuss political moves under immediate threat of ecocatastrophe. On the other hand, many well-known ecologists have predicted that *if* certain trends continue, destruction of gigantic dimensions will take place on our planet within a hundred years or less.

An example of such if-statements: “*If* the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, *then* the limits to growth on this planet will be reached sometime within the next one hundred years.”

Other statements are of a much graver kind, *but are still if-statements* and still with comments implying that we have not reached a point of no return. An example: “Humanity will ultimately destroy itself if we thoughtlessly eliminate the organisms that constitute essential links in the complex and delicate web of life of which we are part.”

Such statements are meant as warnings, and the authors most likely hope that action will be taken to change politics deeply so that the warnings will not be realized as truths. Also politically significant are the predictions that the longer we wait before we start making radical changes, the more terrifying will be the necessary political and other means to reestablish planetary richness and diversity of life, including a decent human quality of life.

The doomsday terminology is the invention of *opponents* of the deep ecology movement. The same holds true for expressions like “zero growth.” This is borrowed from demography and is rarely used by supporters of deep ecology today. They criticize the GNP calculations as basically misleading as they are used in blue economics, and still more as they are used in blue

politics. Green politics cannot have as part of its program the increase of GNP, which perhaps should be read as "gross national pollution." Moreover, there is no new measurable quantity, say "gross national life quality," that could take over the role of GNP. The whole way of thinking that places such weight on a single statistic is in question.

The frantic efforts to maintain economic growth in terms of GNP mean that, on the whole, damaging interventions in ecosystems increase exponentially rather than arithmetically. When a forest is reduced in an arithmetic way, life conditions tend to worsen in an exponential way when the area approaches zero. The difference between exponential and arithmetic growth cannot be overemphasized. If you place pages of paper on top of one another, and each page is one millimeter thick, you would need a thousand pages to reach the thickness of a single meter. If, however, you fold a single piece of paper over and over again, then the thickness grows exponentially as the series 1, 2, 4, 8, 16 . . . , which means that you reach the thickness of a meter (or more accurately, 1,024 millimeters) after only ten foldings, and a thickness of 1,048,576 millimeters, that is, a thin column of paper 1,048 kilometers high, after folding it only twenty times. The public needs to fully understand the *exponential character* of growth measured in percentages.

The decrease of life quality in general is a theme that has been largely neglected in political discussions. Attention has been concentrated on immediate health problems for human beings, the economic loss through death of fish in hundreds of thousands of lakes, and, very recently, the economic loss through dying forests. The shallow approach asks for acid-resistant fish and trees, or questions the economic importance of fishing and forestry when compared with industry, or goes so far as to say, Why even have forests in West Germany if they are not compatible with the country's industrial growth? The contribution of these forests to life quality is being neglected.

Checklist of Ecopolitical Issues

Question: What is the proposed politics of x in regard to subject y ?

x = a person, an institution, a nation, a group

y = any of the subjects listed below

- I.A. Politics of pollution of human environment
 - 1. short versus long time perspective
 - 2. local versus regional versus national versus global perspective
 - 3. class aspect: local versus regional versus national versus global perspective
- I.B. Politics of pollution of the habitat of other life-forms
 - 1. short versus long time perspective
 - 2. local versus regional versus national versus global perspective
 - 3. discrimination: favored versus unfavored life-forms
 - 4. politics related to specific species, ecosystems, landscapes
- II.A. Politics of resources for human beings
 - 1. short versus long time perspective
 - 2. local versus regional versus national versus global perspective
 - 3. class aspect: local versus regional versus national versus global perspective
- II.B. Politics of resources for nonhuman life-forms
 - 1. short versus long time perspective
 - 2. local versus regional versus national versus global perspective
 - 3. discrimination: favored versus unfavored life-forms
 - 4. politics related to specific species, ecosystems, landscapes
- III.A. Politics of population of human beings
 - 1. short versus long time perspective
 - 2. local versus regional versus national versus global perspective
 - 3. class aspect: local versus regional versus national versus global perspective
- III.B. Politics of population of nonhuman beings
 - 1. short versus long time perspective
 - 2. local versus regional versus national versus global perspective
 - 3. discrimination: favored versus unfavored life-forms
 - 4. politics related to specific species, ecosystems, landscapes

These three classes of issues constitute the core of ecopolitical issues in a narrow, standard sense. The above list may be helpful, but there is a wider, and in my terminology, deeper sense in which ecopolitical issues also cover many problems within traditional politics. In relation to I.A–III.B, green politics opposes the red, and especially the blue, in the following ways:

1. We have a long time perspective. We intimately feel that we are parts of an emanation of life wherein a million years is a short time. We are concerned with soils that can be destroyed in five minutes but that would take a thousand years to restore. We are unimpressed by short political election periods and reject the superstition that a few years of research and technical development can solve any major ecological problems of any kind. Nevertheless, we must be alert and try to anticipate the next moves of our governments and their primary unecological agencies (e.g., the so-called forest services; the Environmental Protection Agency in the United States).

2. Green politics combines local and global perspectives, trying to tone down the excessive role of national and international structures. What is known as "national identity" should be based on local communities. Inter-local communication largely supplants international. So-called assistance to the Third World (e.g., by the organization The Future in Our Hands) is done through direct contact between local communities. It is difficult to avoid governmental institutions, but nearly a thousand global nongovernmental institutions are headquartered in Geneva and can be used to facilitate interlocal rather than international contact.

Education will largely concern the local and the global. Green schools are available in many places today, but there are thousands of graduates who cannot find work along their preferred lines. The public and the bureaucracy should come to realize the great value of the interdisciplinary education provided by such schools, and thus welcome their graduates heartily into many kinds of respectable employment positions.

The main arguments used in Norway when rejecting membership in the European Common Market (EEC) in 1972 were mainline ecopolitical arguments (issues I.A and III.B). We rejected centralism endangering local and "peripheral" populations, forced worker mobility, increased competitiveness in the world market. We said no to the introduction of four times as many officially accepted medicines, and we said no to opening still wider our gates for immense European and multinational firms.

3. Green politics supports the elimination of class differences locally, regionally, nationally, and globally. The global aspect makes it clear that practically everyone in the rich industrial states belongs to the global upper class. This is easily forgotten by trade unions and by some Marxist-Leninists who still unilaterally focus on the liberation of the workers of their own country.

The core of class suppression may be seen basically as a cross-generational

suppression of life-fulfillment potentials in relation to fellow beings, or in my terminology, possibilities for Self-realization.

The politically significant *green-red alliances* in Scandinavia use this name because green political issues are mostly conceived rather narrowly as comprising only issues I.A through III.B. If we adopt such a narrow concept, a great many political problems seem to fall outside the green framework. However, all political issues can be considered from a green perspective.

To finance ecologically important projects, supporters are dependent on private and public funding. This means that one usually has to give priority to projects that people with power or people with money think should have priority, and then hope that some of the money and equipment can be quietly put to work on projects that should have priority according to deep ecology. In short, politically accepted tactics must be taken seriously, however distasteful this may seem. Talk more about cancer, and dollar bills may come flying through your open window! The same is true for the fight against *easily seen* effects of pollution. Acid rain is now taken seriously in West Germany because an important pressure group, the owners of forests, discovered that they could *calculate* losses in terms of money, and because more and more people could *see trees dying* all around them.

The political function of science deserves to be mentioned. The belief is widespread that because some scientists now work for governments, politics has become more scientific than in the days of Louis XIV. There is little evidence to support this. In ecopolitics three main factors operate against scientific influence. First, politicians ask ecologically relevant questions that scientists find impossible to answer except perhaps after long periods of large-scale research. So politicians conclude, Science has *not* found it dangerous or detrimental to do such and such; therefore, why not do it? Or, as in Britain today, the government says that the theory of acid-rain destructiveness has not been scientifically *proved*, so let us postpone costly methods of control for at least five years.

Second, the cautious language of some scientists (or philosophers) may always be used to postpone. Third, the government knows that scientists do not always agree with one another. One or more scientists can always be found who do not publicly condemn unecological policies, and these are then given power. For reasons already mentioned, saving spectacular animals receives better financing than saving more modest creatures that are more important for their ecosystems. Giant pandas and California condors

are showpieces. It is estimated that recovery efforts to help the condor will cost \$25 million over the next forty years. Tactically, propaganda in favor of the spectacular may pay off, but tactics may go too far.

The recent effort in Australia to save toads crossing highways on their way to breeding sites by use of road signs shows the way to a more “democratic” and “egalitarian” ecopolitics. Philosophically, the trend is remarkable.

Malthusianism

It is of crucial importance for the political left’s efforts to limit human populations to eliminate certain misconceptions about Malthusianism. Malthusian theory has two parts, one of which is acceptable and important from a green point of view, and one of which is completely unacceptable.

The first part concerns food increases versus population increases. Let us say that there are one million people in a territory, and let us suppose that they get food by cultivating one square kilometer—using fantastically “advanced” technology. Let us further assume that the population doubles very slowly, say every hundred years. Even then, it is clear that the geometric (exponential) ratio of increase makes our planet overcrowded after only a small number of centuries. The number of square kilometers on Earth is finite! Malthus makes this important point by considering the likely effects of “unchecked” population growth. Today, human population is largely unchecked, and it would be a Herculean task to check it.

From theoretical demography Malthus jumps to social philosophy and politics. To understand Marx’s hatred of Malthusianism, one must read Malthus’s most extreme views: everyone must delay the establishment of his own happiness until, through his labor and savings, he has put himself in a situation in which he can provide for the needs of his family. The man responsible for disobeying this injunction should rightly be punished, even if this causes his wife and children extreme suffering.

To the punishment therefore of nature he should be left, the punishment of want. He has erred in the face of a most clear precise warning, and can have no just reason to complain of any person but himself when he feels the consequences of his error. All parish assistance should be denied him; and he should be left to the uncertain support of private charity.

(Malthus 1872)

What also infuriated Marx was Malthus's talk about laws of nature and laws of God. Nothing could possibly eliminate poverty; misery was a scientific necessity!

The hatred of Malthusianism is worth mentioning because it may have indirectly led political parties on the left everywhere to shun any talk of human population control by political means. To rationalize this negligence, which is so dangerous from a green point of view, the most improbable views about salvation through industrialization have been current in the Third World since the 1920s. In India, for example, it has until recently been common to point to the population density of England or Holland: population control was said to be unnecessary because "industrialization in these European countries shows that Malthus is wrong! The greater the population, the higher the standard of living for all!"

In Scandinavia and perhaps in all the rich industrial countries, it would today be politically suicidal to propose plans for population reduction. From a green point of view there are, however, only two options: either a complete restructuring of economy and technology, or population reduction. It is to be deplored that groups near the red pole in politics tend to neglect (human) population problems and that those near the blue pole forget that one more baby in the overdeveloped countries is a much graver ecological threat than one hundred more in the slums of Calcutta.

A person active in politics should try to make it clear to the public that he or she as a private person may entertain some views that are completely unrealistic in terms of accomplishments within election terms but that nevertheless are important for his or her personal political motivation. The impact of continued population growth on conditions of life and on the ecosphere in general is intolerable and is still increasing geometrically. Even if it is *politically* suicidal to plan changes of this dimension as part of a political platform, it is irresponsible on the part of the politically active not to admit that they as private persons entertain these green views. If these views are hidden, the many people who do not play an active part in politics, but entertain radical green views, feel even more powerless than they are. They get the feeling that taking part in the struggle for power is incompatible with having green views.

The Rights of Living Beings

“Human rights” terminology has had a significant impact on politics that has been largely beneficial. Since 1945 minority groups in many countries have fought against discrimination and cruelty using rights terminology. As long as this has political impact, it is advisable not to give up the expression “*animal* rights.” The confusion about the term *rights* in philosophical and legal-academic milieus does not constitute a decisive counterargument. At least in some countries, the talk of rights of animals does not confuse people and is endorsed by the majority.

In a vast number of texts, the substitution of “human and animal rights” or “ecosystemic rights” for just “human rights” improves the text significantly from the point of view of green politics. As an example, consider such a substitution in the last part of the following quotation: “In this work, it is proposed to use *overpopulation* to refer to population sizes that exceed a country’s or the world’s capacity to provide adequately for the enjoyment of the basic human rights of all who are born into that country or the world” (McCloskey 1983: 19). In discussions, this means that questions such as the following are often relevant: You mean *exclusively* human rights? Why do you refer only to *human* rights? What about the rights of nonliving beings? The question is to some extent spurious if one adopts an expanded notion of the term *life*, including the physical life of an ecosystem, the interaction of ecosystems, and the inherent life of the Earth as a whole. The highly successful slogan “Let the river live!” attests to the power of broad ideas of living that can cover landscapes, including mountains, lakes, and oceans.

In some contexts, though, the use of the term *rights* may be confusing. If so, it may be appropriate to eliminate it in reference both to animals and to human beings.

The Deep Ecology Movement, the Peace Movement, and Their Campaigns

Fifteen years ago close cooperation between supporters of deep ecology and activists in the peace movement was out of reach. Rather suddenly, this situation has totally changed. Nuclear war would be an ecological catastro-

phe, and no life-forms except one are vitally interested in different political ideologies or big-power rivalries. Even the present level of armaments with its exponential growth is a heavy burden ecologically. One factor often overlooked is the mishandling, even torture of millions of animals in experiments involving nuclear radiation. These animals are living through a nuclear war today. (This reasoning may sound ridiculous at present in the face of the other horrors of the modern world, but in ten years such thinking should be commonplace.)

Some of us, myself included, favor unilateral disarmament and establishment of unheroic nonviolent defense. Today it is politically unrealistic in northern NATO nations to work toward getting out of NATO. This is not necessary, however. The basic documents of NATO establish it as a defense organization with no clauses against nonviolent defense. So, by promoting that sort of defense, we could be *pushed out* of NATO. A more politically realistic approach is a gradual introduction of antinuclear and nonviolent proposals from within NATO.

At this point it is important for activists to stress the distinction among action, campaign, and movement. The first comprises the direct *actions* within a campaign, for example, a demonstration at a particular place and time against the building of a dam, or the nonviolent obstruction of the transport of machinery on the way to the dam site. This may be part of a ten-year-old *campaign* to save a river (including, of course, its watershed) from development of some sort. Ten direct actions may be failures, but nevertheless their impact may contribute to the victory of the campaign. (Or may polarize the conflict, contributing to the failure of the campaign? That is what many antiactivists claim.) The river campaign together with other analogous campaigns may be seen as part of a *movement* of greater or lesser generality: a movement to save rivers or, more generally, a conservation movement. Many campaigns may be failures, but the movement goes on.

Politically, it has been important to clarify that the highly successful antinuclear campaign (as part of the peace movement) is after all only a definite, limited campaign. Supporters of a more radical disarmament, or of nonnuclear politics of various kinds, should not try to force the campaign to widen or change its identity. One may take part in several campaigns, but the frequent attempts to change the antinuclear campaign to cover

other goals are politically dangerous, leading to ruinous struggles among campaigners.

Deep Ecology and the Big Political Issues

Which political traditions or systems are most likely to color green politics? Here I am using the customary vague and ambiguous terms, and let me immediately admit that I feel uncomfortable when having to use those terms.

1. Reform or revolution? I envisage a change of revolutionary depth and size by means of many small steps in a radically new direction. Does this essentially place me among the political reformists? Scarcely. *The direction is revolutionary, the steps are reformatory.*

Of course, what I as an individual think has not much weight, and I can only say that I do not feel at home with the thought that something resembling the revolutions we read about in history textbooks, or that we may wish would take place in South America, would be of help in the industrial countries.

2. Capitalism or socialism? Although there may be said to be economic policies conveniently called capitalistic, there is hardly any capitalistic political doctrine. Socialism has such a doctrine, but is it sufficiently concerned with nature rather than its own bureaucracy?

3. Relation to communism and anarchism? Roughly speaking, supporters of the deep ecology movement seem to move more in the direction of nonviolent anarchism than toward communism. Contemporary non-violent anarchists are clearly close to the green direction of the political triangle, but with the enormous and exponentially increasing human population pressure, and war or warlike conditions in many places, it seems inevitable to maintain some *fairly* strong central political institutions. Recommendations such as those contained in the World Conservation Strategy are steps in the right direction, but there are no authorities strong enough to implement them.

Experience suggests that the higher the level of local self-determination, the stronger the central authority must be in order to override local sabotage of fundamental green policies. Or is this too pessimistic? Anyhow, the green utopias, such as those of Sigmund Kvaløy, Johan Galtung, The Future in Our

Hands, Blueprint for Survival, much like the *panchayat* utopia of Gandhi, rarely provide for significant variation in occupation and social structure in general, nor do they seriously consider the need for centralized power as long as human mentality remains similar to what it is now. Local initiatives must be encouraged! There is a great difference between units of administration and self-motivated small groups of people.

Green Political Programs from Day to Day

My conclusion here is to remind us that we need not agree upon any definite utopia, but we do need to thrash out limited programs of political priorities within the framework of current political conflicts. Our questions are of the form “What would be a *greener* line in politics at the moment within issue *x* and how could it be realized?” rather than of the form “What would be the deep green line of politics within issue *x*?” *Green is dynamic and comparative, never absolute or idealistic.*

The term *political voluntarism* may be helpful in this connection—as something to be wary of. It is a term characterizing political activity in which you think that you can rapidly force a deep change of society by sheer willpower through direct action. It was used, for example, in Marxist criticisms of students engaged in the so-called student revolutions of the late 1960s. Some Marxists said that universities are peripheral institutions: “Power inside universities does not count.” The *will* to change society by means of student power is nonsensical. You must have a much broader and more realistic basis of activity. In this sense, political voluntarism is a kind of romantic delusion.

Returning to the problem of combining basic ideals of ecopolitics and day-to-day political fights for very, very limited green gains, let us consider an example that may make the complicated situation clearer.

An energy problem exists in Norway and Sweden, but it is primarily the problem of how to reduce the fantastic *waste* of energy. It is essentially a problem of how to limit the use of energy to vital needs. From the green point of view, the current level of yearly consumption is more than sufficient for any needs. Nevertheless, some supporters of green policies take part, and should take part, in discussions concerning which sources of increased energy supply have the least detrimental consequences socially and

for life conditions in general. The situation is rather awkward: the greens are led to promote decisions they detest. As long as we constantly make clear that any increase of energy production is unnecessary and detrimental, the participation in how to increase it is justified and important. At the moment, policies of stabilization or decrease of energy production should be vigorously propagated, but politically they are dead or hibernating. Or proposals for such policies have no chance of being adopted at the moment. Today, politically powerful plans call for exponential increase of energy production until 2020. So if all available alternatives are bad, this should be said, and the worst consequences should be fought strongly.

“Everything hangs together.” This is still a good slogan. One consequence of the interrelatedness is that we all have the capacity to do something of relevance within a framework of our own interests and inclinations. The ecopolitical frontier is immensely long, but we can only work effectively at one place at a time. It is more than long: it is multidimensional, and the pull of the pole of greenness can be felt in all our political positions and actions.

The Three Great Movements

At the end of this century we see a convergence of three areas of self-destructiveness: the self-destructiveness of war, the self-destructiveness of exploitation and suppression among human beings, and the self-destructiveness of suppression of nonhuman beings and of degradation of life conditions in general. The movement to eradicate wars has a long history as a global movement. The movement against abject poverty and cruel exploitation and domination is younger. The third is quite young. These are the great movements that require intense participation on the grassroots level for the rest of this century and far into the next.

The supporters of the peace movement have always asked for policies that often have been clearly “politically impossible” for governments to accept. The same applies to the second and third movements, but today the first two can at least point to people in power who declare strong sympathy for their radical points of view. A prominent supporter of stronger NATO forces (Halvard Lange) declared that at heart he was a pacifist (which irreverently made his wife whisper, “Then I am a virgin”). Such sincere, *publicly declared* sympathy is probably not yet at the governmental level, say, in support of the deep ecology movement.

The urgency of preserving nature for “the future generations” — meaning future generations of human beings, not future generations of living

This article was reprinted with permission of Arne Naess from *Deep Ecology and Politics* (Centre for Development and Environment: University of Oslo, 1993). It is a revision of three articles, “The three great movements,” “Comments on the planned official Norwegian presentation in Rio, April 1992,” and “Politics and the ecological crisis: An introductory note.” A revised version of the article appeared in *The Trumpeter: Journal of Ecosophy* 9 (Spring 1992).

beings—has won acclaim among power elites. What I, perhaps misleadingly, have called the shallow, reform, or nondeep ecology movement has started to have an impact on the governmental level. Environmental organizations are listened to and their advice has occasionally been used in practice. However, future generations of nonhuman beings seem to be valued, at least publicly, only for the sake of future human beings.

It is the task of dictionary editors to offer definitions of the deep ecology movement. I have difficulties in doing more than proposing a tentative formulation of the views that most supporters of the movement hold in common on a fairly general level. These are the so-called Eight Points, which I shall not repeat here.

The realization of the points requires significant changes in both the rich and the poor countries and affects social, economic, technical, and lifestyle factors. The goals *include* the protection of the planet and its richness and diversity of life *for its own sake*.¹ The specific kind of urgency accorded to this third movement owes to the time factor: it is obvious that delays rapidly make the ecological crisis more difficult to overcome. Wait five years and the process may take fifty years more. Such a nonlinear function of time we do not find with regard to the other two movements.

What can be more urgent than the elimination of extreme poverty and suppression? We may answer that nothing can be more urgent, but whereas the general costs are roughly constant year after year, or increase linearly, the specific character of the ecological crisis makes the cost to reach ecological sustainability increase exponentially.

Whether in a civil war or an international war, the mentality created is that of more or less complete indifference toward destruction of nature. Destruction is even used as a weapon. To ask for mercy toward nonhuman beings would here tend to be considered frivolous. The same holds when questioning the destructiveness of the gigantic military-industrial complex that is now increasingly under ecological scrutiny, as its impact is made known in wider circles.

It is evident that the goals of the deep ecology movement cannot be reached without decisive victories of the peace movement. This should add to the motivation of people using much of their time and energy within the peace movement. Some peace people have changed focus and are now active in the ecology movement, finding the change comparable to a

change of focus within a wider peace movement: work for peace with nature, for ending brutal invasions. The change of focus undertaken by prominent peace activists such as E. F. Schumacher has not resulted in noticeable polemics about the relative importance of the two movements.

The many branches of the social justice movement have a more complex relation to the deep ecology movement.

In the West, beginning with the Industrial Revolution and continuing at least into this century, labor has been treated worse than cattle. For several hundred years pollution at the workplace and in urban slums has injured the health of the underprivileged, not the privileged.

"You speak of environmental degradation. We have suffered that for hundreds of years. You close down a factory because of poisons, but what are the consequences for you and what for us? The managers lose their jobs, but they take a long vacation in superb nature, and get new jobs. We increase the legions of the unemployed, we cannot move around easily with our family, we remain in an unhealthy environment, many lose their way of life (loggers), and our problems persist."

"You say the deep ecology movement asks for widening care so that nonhuman beings get a better chance, but you should also support increased care for the underprivileged human beings."

It is quite right that deep ecology theorists, like the peace- and social justice—theorists and activists, speak publicly about the concerns they have focused on. Their writing, if they write, also reflects their specialties. It is, however, difficult to assess what they do privately without knowing them well. General conclusions about the various concerns of the supporters of the three movements are rather shaky.

It is an embarrassing scandal that the rich industrial nations do not use the urgency of work to be done to overcome the global ecological crisis as a basis for significant reduction of unemployment. The jobs in this area are clearly more labor-intensive than jobs in industry.

Looking at philosophical "schools" of the 1960s and later, one sees clearly that anarchists, Marxists, neo-Marxists, the Frankfurt School, and hermeneutics have not felt at home with the tenets of the deep ecology movement—and not just because of the special terminology of its theoreticians. This is not the place to go into professional philosophical debates, but in spite of different philosophical and terminological leanings, three

groups—supporters of the social ecology movement, the ecofeminists, and the deep ecology movement—have cooperated well in praxis, learning from each other's special activities. The frontier of work is long, and we need to express our appreciation for work done in sectors other than our own. The convergence of problems within the three great movements may be expected to increase and their impact on policies correspondingly strengthen.

It is of historical interest to trace the various kinds of physical, social, and other changes triggering the convergence of the three movements. Here I shall not try anything like that but will merely offer some general reflections about these movements, starting with conceptual considerations.

It is not by chance that I have used the term *self* in the short characterizations of the lines of thinking, feeling, and acting. The terminology suggested itself when I was trying out a conceptual unification of a normative system with "Self-realization!" as the basic norm—expressed, inadequately of course, through a single word. For those who habitually look at the three global movements with the conceptualizations of the third movement in mind, the concept of "ecosystems," not "man/environment," is central. The human self is then basically an ecological self, that is, a kind of part of ecosystems, and the doings of human beings in war and peace and as masters or slaves are processes going on with accelerating speed and causal weight all over the globe. The self-destructiveness of current policies seems clear to a great many, and it has been adequately formulated, but to "turn the tide" seems politically overwhelmingly difficult. The self-destructiveness of wars has been announced clearly since the atomic bomb changed "everything." The long-range self-destructiveness of large-scale exploitation and suppression based on race or sex or dominant economy is by now gradually being seen to undermine the exploiters or suppressers themselves. (The false masculinity has crippled the male sex.) At least this is clear if we take into account concepts of self on a scale nearer to the great Self than to the concepts of hard egos. The development of human maturity may perhaps be said to be impaired when stiffened into counterintuitive perceptions of classes among other human beings with whom one interacts. In this case, according to my terminology, there is a limit of Self-realization not being transcended. It seems, though, that most human beings most of the time have been either exploited or suppressed most of their lives. The high levels of

self-realization have been difficult, but not impossible, to reach under such circumstances.

In most cultures some animals have been taken better care of and treated more respectfully than some human beings. During the early days of the Industrial Revolution in England, this presumably was the case with pets and even pigs. In the same country, however, a brand of utilitarianism arose that strengthened the third line of thinking and feeling—that of Jeremy Bentham (1748–1832): “The question is not, can they reason? Nor, can they talk? But, can they suffer?”

So far as I can understand, all-round maturity of human beings facilitates acts of identification with every kind of living being. This again facilitates negative attitudes toward wanton limitation of the fulfillment of life potentialities of such beings. When manifest exploitation and suppression are encountered, a reason is demanded: are they necessary for the satisfaction of vital needs of human beings? The deepening and widening of the human ecological self result in increasingly limiting its own realization when exploitation and suppression are applied. Potentialities of self-realization are destroyed. In this sense, the third movement seeks to reduce the self-destructiveness of present-day globally relevant human behavior.

Within the three great movements there are a number of organizations. One kind of problem they all have is that of eager members who wish to change or, more often, to expand the basic mandates of the organization. The successful movement against nuclear weapons in some countries had to spend much time restraining members who wished to expand into a more general peace organization. That would have reduced its thrust.

Amnesty International is a tremendously successful organization within the human rights movement—part of the general, loosely connected social justice movement (in my terminology). Its success owes in part to its careful limitation to a core problem: to get political prisoners out of more or less devastating prisons through nonviolent action. Its main procedure: letters to people in power. Because of its success, some eager members (and also outsiders) are, of course, pressing the organization to extend its mandate—for example, into being a general human rights organization.

The deep ecology movement has as a general aim to participate in overcoming the ecological crisis, but supporters have in common, for example, a strong sense of the intrinsic value of every living being and the right of

each to live and blossom that is independent of usefulness. Like other movements, especially as long as it seems to be successful, it will always be under pressure to extend its mandate. Mostly, such efforts tend to confuse rather than strengthen a movement, but cooperation with other movements is obviously an important task. The contemporary complex social situation makes isolation rather unnatural.

Again, the very special situation today must be kept in mind: an increasing portion of the populace in the industrial countries are aware of the colossal changes taking place on land, in the oceans, and in the atmosphere, changes that threaten everybody everywhere. The interconnectedness of everything is manifested in a more dramatic and convincing way than in 1970 or 1980. Many of those who were young in 1970 and got some ecological education are now firmly established and influential. It is not my job, though, to trace the ecological, social, and political factors determining the historically important convergence of the three movements and the ascendancy of the ecological issues on par with the traditionally most crucial social and political ones.

Postscriptum, 1993

I still smile, thinking about the fate of a certain criminal called Yellow Cheese (*Gulosten*) among his fellow burglars. He was also a great patriot, and the very day the Nazis invaded Oslo (April 9, 1940), the capital of Norway, Yellow Cheese ran round collecting dynamite: his personal plan was immediately to bomb the places where the Nazis congregated in Oslo. Fortunately for him and for the five-year-long resistance movement, a wiser fighter stopped him: Direct actions must be carefully planned, priorities established. Risk your life, yes, but people are needed who are not sent to German concentration camps within a week of drastic activity. Think in terms of years! Yellow Cheese understood and survived five years of fighting. Honored with a meeting with the King, he developed into a personal friend of His Majesty.

"The key is thinking BIG, both in space and in time," says Michael Soulé (1992/93: 7). Properly explained, this is not the same thing as being "moderate." Yellow Cheese was never moderate, but his later direct actions

were carefully planned and were rarely dramatic. Tactical and strategic considerations went hand in hand.

In the ecological movement there is a need to think in terms not only of days and years, but *also* of generations.

A response to the article by Soulé says a lot of things compatible with his appropriate time-scale principle: “any remaining old growth forest . . . should be afforded the highest levels of protection”; it is “unconscionable to suggest that it is not important to preserve the remaining patches on the national forests.” From a point of view of appropriate time scale, a slogan like “Stop logging old growth immediately!” is justifiable, but we know that we have to select a small number of places, perhaps only one at a time, where we can try to stop logging or at least convince people that we seriously mean that no more logging should be undertaken. So we have to ask, Are there spots that have a lower priority than other spots? This is not compromising in essentials but admitting that we have neither the manpower nor the funds available to offer visible resistance everywhere. Tactical considerations? Sure, but caused by the limitation of resources—as in any protracted warlike situation, except that we are trying to remain strictly nonviolent.

In short, let us be able to join short-range and long-range considerations, and remember that the long-range considerations in no way should diminish our concern for the local in time and space.

Cultural Diversity and the Deep Ecology Movement

The New Cultural Anthropology

Cultural anthropology and the general history of the major families of cultures on Earth reveal vast differences of attitudes, beliefs, assumptions, and premises as well as of individual, social, political, and metaphysical patterns.¹ How deep or basic are these differences? That is an open question. Inevitably, tentative answers require that we also answer questions about what precisely is meant by “deepness” in this context.

Since the 1940s there have been theories about the future of humankind that emphasize the need for continued richness and diversity of human cultures in order to avoid stagnation of human development. Development in terms of biological evolution may take thousands or even millions of years, but the extreme flexibility of human beings may ensure development through deep cultural changes rather than through manifest biological divergence. Such changes may, however, in part depend on the sheer plurality of cultural differences, regardless of their deepness.²

Plurality requires moderation of the contemporary rapid cultural invasion of other cultures, a process we have seen accelerate in the twentieth century. I look on these efforts of moderation as part of the general effort to maintain richness and diversity of life on Earth. At least, in some easily observable ways there is a convergence of cultures rather than diversification. Here, however, we have to take into account the present-day diversification of subcultures—rapidly changing groups of people trying out

This article was written in 1988. It is being published here for the first time.

“new” ways of life in conscious opposition to what is “customary” within a particular culture.

From the very start of the deep ecology movement in the industrial, materially rich societies, an obvious question was raised: are there or have there been cultures with a more ecologically responsible relationship between the human and the nonhuman worlds? In the United States various North American Indian cultures were studied with special care and furnished a clear answer: yes. At the same time, Europeans with a critical attitude toward industrial societies began with renewed interest to study African cultures. Did members of those cultures really work harder? Did they have less time and opportunity for cultural achievements beyond those serving mere survival? Marshall Sahlins answered no. His main work appeared in English under the title *Stone Age Economics* (1972)—an excellent kind of economics. In his opinion, the most *affluent* Stone Age societies were able to support rich cultures.

A new generation of cultural anthropologists grew up in the 1960s with rather ambivalent feelings toward the basic politics of industrial societies. Many of these cultural anthropologists favored new concepts such as “postindustrial society” and “green society” as well as a new conception about “development”: the “underdeveloped versus developed nations” terminology was largely given up as a near-synonym for “poor nonindustrial versus rich industrial nations.” The basic question was raised, How can the poor nations get rid of the kind of poverty that has a negative influence on life quality? How can they develop *without* following the tracks of the rich, consumerist Western nations?

From the point of view of the deep ecology movement, these new vistas were of prime importance. If the majority of human beings tried to live as the average person in the rich industrial societies does, the doomsday prophecies might come true. When we appreciate a manifest cultural difference, do we react in the same manner as when we appreciate a difference between groups of plants or animals? We do not look upon human beings as animals in a zoological garden.

People active in the various life sciences may easily go too far in finding similarities between phenomena in human societies and those in the animal and plant worlds. One has to be clear about the many pitfalls. In the history of ideas the important line of ideas from Protestantism through

Hegel, Marx, and the Frankfurt School has contributed to an acute awareness of this tendency. On the other hand, there is in this thinking a kind of spiritual arrogance that may hide important analogies and counteract the process of identification with life-forms other than one's fellow human beings. In the worst concentration camps of the twentieth century, the conscious efforts of tyrants to educate guards in brutality consisted mainly of teaching them to look upon inmates as animals. "They are only animals!" Brutes should be handled with brutality—they don't understand decency. One must expect that a combining of human cultural diversity with non-human diversity will sometimes elicit deep-seated repugnance. The recent, somewhat confusing debate over E. O. Wilson's sociobiology (1975) illustrates both tendencies, exaggerating similarities or letting repugnance take over.

Julian Huxley, the biologist and leader of UNESCO in the late 1940s, and many others at that time, worked out the hypothesis that in the very long run, cultural diversity and cultural "evolution" will play for the species *Homo sapiens* a role *analogous* to the role of mutations and species variation among nonhuman beings. Cultural evolution has been thought to result in a development much faster than real speciation among nonhuman beings. This is made possible through the extremely loose programming of human beings: their options in life are more varied, "instinctive" determinants are less dominating even if very strong. The term *analogous* is used rather than *similar* because some differences are deep and important.

Deepness of Cultural Differences

If we subsume human cultural diversity under the concept of intrinsically valuable diversity of life-forms, the adjective *deep* is appropriate. Differences in details are not often important. If people in culture *A* must put something on their heads when entering a church, whereas people in culture *B* must take care not to wear anything there, the difference in behavior is not deep. The attitudes toward a church may be very much alike.

What we are mostly concerned about today is the continued existence of deep cultural differences, not just small variations of mores and habits. From the point of view of the science of cultural anthropology, the criterion of deep versus shallow cannot be precise, but the literature of that sci-

ence shows clearly the presence of a distinction between deep and shallow or, rather, between deep and less deep, big and small, essential and nonessential. Classifications of cultures into groups attest to such discriminations.

Scientists are able to describe fairly precisely differences between societies as wholes. Human cultures as wholes are more elusive. Researchers may point to a great manifold of particular differences between cultures, but the characterization of cultures as wholes is an ambitious undertaking with many pitfalls.

It is understandable that efforts to furnish a cultural taxonomy—with species, genera, families, and so on—are scientifically and philosophically doubtful. In any case, some applications of the distinction between deep and less deep are obvious: the cultural differences among Norway, Sweden, and Denmark are less deep than those among England, France, and Germany. Within the territories of Norway and Sweden there was not very long ago, however, a deeply different, extremely decentralized nation and homogeneous culture: that of the Sami people (generally known as Laplanders). Here we have three levels of deepness that are uncontroversial. It is perhaps unfortunate that the term *deep* is used both here and in the expression “deep ecology movement.” There are, however, similarities of connotation: one line of interpretation of “deepness of cultural difference” makes it synonymous with “cultural difference affecting cultural *premises*,” and premises are at stake when we distinguish between deep and nondeep questioning (problematization) within the general ecological movement. The term *premise*, like *presupposition* (Collingwood), is fairly common in cultural anthropology. Furthermore, there is a movement to defend cultures threatened with extinction. Within the movement is an awareness that, other things being equal, a culture more deeply different from others has a priority. The threatened cultures are small and so-called underdeveloped—i.e., not on the (wrong) way to becoming like us. Their resources are “underutilized.” Conflicts are going on all the time between those who will profit from “helping” them on the way to being like us, and those who try—mostly with little effect—to help the minorities who are critical of this “help.” It is a good sign that the term *development* now is more of a dyslogism than a eulogism.

From the point of view of economic growth and consumerism, no-

madic people are a nuisance for the extremely rich nations. The Sami people protested in vain against roads and dams in their Arctic territories in Norway and Sweden. The movements of their reindeer were impeded and their ecologically sustainable ways of living were undermined. Those young people who wish to adapt to the ways of the powerful invaders, for example, to the ways of the Norwegians, should be helped by the invaders, but those who wish for a development, not abandonment, of the Sami people should not be impeded in their efforts.

One way of clarifying the deepness of a cultural difference is to evaluate the success of efforts to translate a culturally significant text in one culture into a text in the vocabulary of another. (For important reasons I avoid discussing translating one language into another.)

The culturally important Greek term *areté* is only by an old convention translated into English by the term *virtue* and into Scandinavian languages even less adequately by *dyd*. The meanings of the Greek term are laboriously explained in footnotes and in special texts about texts. It is hopeless to find a single word or complex expression that would come near to expressing what is conveyed by *areté*. Therefore, it is better to use one and the same inadequate word in every context. Its occurrence *signals* the Greek untranslatable word. The informed reader knows that in the Greek text there is an occurrence of the term *areté*.

Similarly, the Sanskrit term *deva* is translated “god,” but the informed reader knows that this is not a translation in any precise sense but merely a conventional indication that in the text there is an occurrence of *deva*. A ten-word, not entirely inadequate “translation” might be: a power different from that of human, and mostly greater.

When a Bororo utterance is rendered as “I am a parakeet,” the translation is sometimes thought to be adequate. The Bororo clearly have a term designating the sort of bird we call a parakeet. Of course, the English sentence is misleading, except to cultural anthropologists. Many people with severe mental disturbances say “I am Jesus,” and we conventionally consider their statements false in a historical sense. When hearing the sentence “I am a parakeet” (if not asserted by a parakeet!), we similarly tend to reject the statement as false. The cultural anthropologist will try, perhaps through a couple of semesters’ lectures, to convey—still more or less inadequately—*what is meant* by the sentence when uttered by a Bororo. Conclu-

sion: if a translation of one sentence, *A*, into another, *B*, is an adequate translation only if what is meant by *A* within group *C* is conveyed to *B* within group *D*, then there cannot be any translation of the Bororo sentence into English. This holds true even if we write “approximately conveyed” instead of just “conveyed.”

A different criterion of deepness is the extent to which cultural premises differ. It is a common methodological norm within cultural anthropology to try to “understand each culture on the basis of its own premises.” The assertion of such a norm is justified only if the researchers have means to test properly hypotheses of the kind “*x* is a cultural premise of culture *y*.” If premises are articulated systematically, they form sets of more or less *different* fundamental hypotheses and norms. The more the set of premises explicit or implicit in culture *A* differs from the set in culture *B*, the deeper is the difference. This may be a useful criterion, but the fierce conflicts between cultures often concern very special applications of the premises, rather than the premises themselves.

Whatever the reasonable criteria of “deeply different cultures,” there were more than 100 deeply different cultures about the year 1650. Given some of the sets of reasonable criteria, the number would be much greater.

The number of human beings at that time was about 500 million, less than one-tenth of the world’s human population today. One hundred cultures among 500 million means five million for each culture, on the average. The way some cultural anthropologists reckon, we may say that there were more than 100 deeply different cultures with significantly different “premises.”

In about 1650 Scandinavia was inhabited by two deeply different cultures, the Sami and the dominant Scandinavian culture with its three languages—which are, surprisingly enough, classed as major languages in the supremely interesting book *The Languages of the World* by Kenneth Katzner. The Sami language is still used by more than 10,000 people, but the culture is rapidly degenerating under pressure from powerful industrial neighbors. Until recently, such pressure was blatantly coercive; now there is a tendency to listen to a minority in the dominant culture who want the Sami to be offered a high degree of independence. In other areas of the world, such as in the remaining tropical rain forests, the extermination of cultures deeply different from the dominant ones goes on practically unhindered.

If we use language as a criterion of deepness of difference, Katzner's classification includes nineteen families of languages, plus an "independent" category to represent those not easily put into any family. Some families have many members; the American Indian, for example, has more than 1,000, "the vast majority spoken by small tribes numbering a few thousand people or less" (Katzner 1986: 34).

There are some deep differences in cultures corresponding to different American Indian languages spoken in Canada, the United States, Mexico, Central America, and South America. There are, however, by far fewer deeply different cultures in these areas than the number of languages. Sixty-eight languages are listed as Indo-European. From the point of view of an American Indian, these languages would perhaps be found to be similar and so also the corresponding cultures. From the point of view of a Norwegian, they seem to contain considerable differences. I would vote for the existence of more than ten deeply different cultures when we work through the many branches of the family, the Indo-Iranian, Slavic, Celtic, Germanic, and so on. Again, though, without fairly precise criteria for assertions of forms such as "The cultural difference between *A* and *B* is greater than between *A* and *C*," not much is gained from the above reflections.

Enough number games? The main point is to make available for our imagination and appreciation the still considerable number of deep cultural differences. It is also my intention to heighten awareness of the decrease, even extinction, that is going on, especially outside the sphere of big, rich nations, but also inside them through harassment of subcultures deviating "too much" from the establishment. Life is made difficult for people who try to live in an ecologically responsible way, i.e., an ecologically universalizable way—not from malevolence but from sheer friction.

In the words of the cultural anthropologist Fredrik Barth, cultures are mowed down as with bulldozers. This metaphor and many others suggest a widespread similarity of attitude both toward destruction of diversity of cultures and diversity of animals and other kinds of life-forms.³

Cultural Diversity and the Deep Ecology Platform

It is not common to link the movement to protect nonindustrial cultures to the ecology movement. There are, however, good reasons to do so as long as

we do not neglect the obvious great differences between our relations to human cultures and those to any animal or plant culture (or society). In what follows I shall mention some of the areas in which there are obvious analogies or even similarities.

In the eight-point deep ecology platform proposed in 1984, considerations of diversity of life-forms include diversity of human cultures.⁴ Human cultures constitute complex forms of life on the planet. Or, less dogmatically formulated, the way supporters of the deep ecology movement conceive the *diversity* of cultures is in certain ways very much like the way they conceive the *diversity* of plants and animals and human beings. This justifies mentioning deep cultural differences in point 2.

Point 3 emphasizes that the rich nations with great coercive power have no right to reduce the diversity of cultures with less power, less ability to survive invasion—whether territorial, technical, economic, or cultural. Here it should be added that a lot of this reduction is not intentional, and, as in the case of most invasions, there are fifth columns eagerly supporting the invasion. Furthermore, reduction of cultural diversity is carried out within the poor nations, with powerful tribes or groups suppressing “weaker” cultures.

Point 4 puts forward the contention that the flourishing of human cultures is compatible with a “substantial decrease” of the human population. *Just to provoke*, I have sometimes suggested 100 million as “sufficient.”⁵ With one million as the average membership of a culture, this only provides for a maximum of 100 deeply different cultures. The main point, however, is that there are no vital needs, no ultimate goals that require a gigantic number of people. In a small population the investment per capita would be prohibitive in terms of ensuring broad scientific progress, including progress in mathematical physics and cosmology. Therefore, one would have to think of the future scientific endeavor as a joint enterprise of several deeply different cultures.

The relevance of point 5 of the platform is terribly clear. There are today cases of violent extinction of cultures. More often, there are constant, more or less easily observed pressures from surrounding powerful societies. In *The Careless Technology* (1972), Farvar, Milton, and colleagues describe cases of mindless introduction of Western technology. The ideology of “progress,” Western style, is still used when cultures are invaded. Tourism is permitted

to take forms clearly destructive of cultures. One must admit that it is sometimes very difficult to find out where to draw the line: starving children must be helped even if most kinds of help so far have undermined the culture.

Some serious students of the problems have given up hope that certain cultures can be saved. To support the forces that try to prolong their lives may be brutal toward young people who should learn new things required when their culture gets closer to death. There are no easy solutions to these problems. I just mention them here.

Point 6 was written primarily with the rich countries in mind. To prevent what is generally called neocolonialism, many of the same changes are necessary that are also necessary to protect nonhuman life on the planet. It must be conceded by the rich that efforts to protect East Africa's fabulous fauna were more energetic and better administered than efforts to protect its cultures. Norms announcing that human beings have special obligations toward their own kind were violated, as were norms expressing concern about extreme poverty and about cultural diversity. The situation is different now. The World Wildlife Fund successfully combines concern for people and animals, to mention an example. Much remains to be done, though, to clarify the ethical questions involved and to find tenable solutions.

Point 7 was also written primarily with the rich countries in mind, but if the reports about the lifestyles of the power elites in the poor countries are fair, the situation is precarious there also. Ecologically universalizable lifestyles must be the norm for all groups, including those in the poor countries.

Point 8 is particularly relevant in a time of mass tourism and worldwide economic penetrations. Millions of people who are not trained to contact vulnerable cultures visit them and cause the young to get the impression of an easy life without any obligations, and an opportunity to roam around at will. In all cultures the young are under at least some pressure to conform and to learn a profession. Foreign tourists seem to come from countries without any restrictions except those imposed by the police.

Economic forces operate largely without restrictions, penetrating more or less helpless countries ruled by power elites profiting from foreign domination. Those who essentially agree to the descriptive and normative views outlined have, according to point 8, an obligation to try to assist the implementation of the necessary changes.

The above survey of the Eight Points has not considered "richness" of cultures. The intended concept of richness as applied to the animal and plant world implies, for example, not only preservation of species but also the wide distribution of habitats of the species and the multiplicity of individuals. If we map out bioregions and, in general, different areas of the biosphere, the questions posed are mainly, Have the population and distribution of such and such species diminished in this area? Why? Can we restore these areas?

With cultures, such questions are less applicable. The members of a culture may, of course, belong to a large set of tribes and the tribes will, if nomadic, spread out geographically. At any minor place there cannot easily be large numbers of members of deeply different cultures. Members may come together at big trade centers (Fredrik Barth) and live together at the center without much conflict, but in general, different cultures occupy different territories.

This brings up the large question of the relation of minorities and subcultures to a main culture, and the pseudo-richness of cultures within the borders of a metropolitan area like Los Angeles. Is there a South Korean culture within Los Angeles? The answer, as I see it, is a clear no, although there is a cultural minority and a subculture within the cultural unity of the United States.

Is it ethically legitimate to support minorities in foreign cultures? Must we either support dominant tendencies or try to keep neutral? A philosophy of compassion makes it difficult not to lament the vast amount of suffering in nature. When we contemplate cultures in their splendid diversity and their accomplishments, the same philosophy makes it doubly difficult not to lament the sufferings and indignities manifested there. It is scarcely possible not to utter "How unnecessary, how meaningless!"

The anthropologist and historian offer explanations, trying to show that the vast suffering has been unavoidable. It remains a painful side of human development, but it does not diminish the appreciation of the deep diversity and the great accomplishment under difficult circumstances. Lamentation is a passive emotion in the terminology of Spinoza. Self-preservation makes us try out an active attitude in regard to extreme prolonged suffering in animals as well as in the cultural context, in spite of our limited ability to foresee the overall and the long-term consequences of our actions.

Some cultures, like that of the Chiricahua Apache, are conventionally looked down upon because their technology is “ridiculously” simple and their institutions astonishingly undeveloped. What is mostly forgotten is the great achievement of *a culture shared by practically all adult members*. They are competent in practically every culturally important activity. There are no occupational secrets, no carefully cultivated specialties, no hierarchical structures that leave some members out in the cold; there are no second-rate citizens. The culture as a whole is alive, whereas with us the whole is merely an abstraction, nothing experienced by anyone. It is in deep contrast to conditions in our giant industrial society where we can do practically nothing worthwhile culturally without the clear knowledge of others doing it professionally and much “better.” With us there are no cultural generalists, whereas in the Fourth World cultures there are few specialists. There is simplicity of means combined with an astonishing richness of ends. So it is wise not to look down upon them! They have their shortcomings, we have ours, but ours generate tremendous global impacts.

Concluding Remarks

The movement in the rich countries to protect against their own destructive influence on nonindustrial countries, and therefore on cultural diversity in general, strengthened remarkably in the same years that the deep ecology movement strengthened. Whereas the latter movement depends heavily on grassroots support, people in general rightly feel that they cannot so easily demonstrate their willingness to change the current rapid deterioration, for example, of the conditions of the tropical rain-forest cultures.

Nevertheless, there is some overlap between the two movements. If we look at the efforts within the three great contemporary movements that demand strong grassroots participation—the peace, social justice, and deep ecology movements—the strength of the movement to protect cultural diversity depends on all three.

Deep Ecology and Conservation Biology

In the late 1960s and early 1970s, many of us believed that most ecologists would concentrate on research clearly related to the solution of the ecological crisis. At the universities, however, the atmosphere encouraged “pure” research—research without definite, practical goals. Moreover, those who get jobs within the range of interest of big corporations work with goals in mind but rarely focus on the crisis and rarely “go public.”

Most high-level papers in ecological journals are extremely specialized and only remotely relevant for critical issues. In the early 1970s, those who focus on the general crisis warned supporters of the deep ecology movement not to expect much help from established researchers in scientific ecology.

Then came conservation biology! It started as scientists and managers from many quarters realized that they profited by working together to combine theory with practice in their efforts to save the planet from further destruction. They were in a sense practitioners of ecology. They came from “biogeography, systematics, genetics, evolution, epidemiology, sociobiology, forestry, fisheries, wildlife biology, and the auxiliary sciences of agronomy, veterinary science, resource economics and policy, ethnobiology, and environmental ethics” (Soulé 1986: 5).

Conservation biology is a movement. “The idea of conservation biology seems to convey several things at once, including scholarship, a common purpose, and the potential for making a significant personal contribution to the world. For students and established scientists alike, conservation biol-

This article was reprinted with permission from *Earth First! Journal* (March 20, 1990): 29.

ogy seems to represent a community of commitment, and something of value to identify with" (Soulé 1986: 5). "Consensus can also define a discipline. Disciplines are not logical constructs; they are social crystallizations which occur when a group of people agree that association and discourse serve their interests. Conservation biology began when a critical mass of people agreed that they were conservation biologists. There is something very socialized very human about this realization" (ibid., p. 3).

Insofar as conservation biology is a scientific discipline, it is a crisis science like AIDS and cancer research. That is, it uses certain goals and values as axioms. The intrinsic value of diversity of life-forms and the meaningfulness of a struggle to save life-forms from extinction are taken for granted. Conservation biology is therefore not purely descriptive; it is "a prescriptive science" (Norton-Griffiths, in Sinclair and Norton-Griffiths 1979: 237). Consequently, it is activist-oriented and personal: "The planetary tragedy is also a personal tragedy to those scientists who feel compelled to devote themselves to the rescue effort" (Soulé 1986: 11).

Despite conservation biologists' intense commitments to rescue the nonhuman world, they see the precarious situation of millions of people. "For example, the implementation of 'biosphere reserves' as sites for the harmonious coexistence for humans and nature (UNESCO-UNEP, 1984) depends on both a good grasp of the local biology and on the enthusiastic support of the indigenous peoples. In fact, the survival of many natural biological communities is going to require the creative cooperation of biologists, social scientists, and politicians, especially in the tropics. It won't be long before many conservation biologists are spending more time at community meetings than in the field or laboratory" (ibid.).

From all this it is clear that members of the conservation biology community are supporters of the deep ecology movement—provided that movement is characterized along the lines of the Eight Points of the Naess-Sessions platform. On the other hand, very few deep ecology supporters can boast of being conservation biologists. Many supporters may be ignorant of conservation biology. They may be local activists trying to save a small forest, say, in India.

Some supporters of the deep ecology movement are active in the efforts to save the cultures of nonindustrialized communities. The slogan "Wilderness for the people" attests to the goal of letting people in who do not de-

stroy or degrade wilderness and letting people who already are there remain. It is sad that some Third World authors feel that “American deep ecology” threatens to save spectacular animals at the expense of human beings. It must be clearly stated that the average lifestyle in the United States is such that wilderness and the American way of life are incompatible. The fight to save what remains of U.S. wilderness does not teach anybody how to save Third World wilderness. Conservation biologists in the Third World try to preserve wilderness, but in cooperation with people who determine policies.

Conservation biologists “go public.” That is, they try to make people aware of the perilous state of affairs. Here they part from the main body of earth scientists, who tend to avoid propagating their strong views—if they have any—in public. Why do most scientists avoid voicing strong views? I have made a tentative list of reasons:

1. Time taken away from professional work.
2. Consequent adverse effects on promotion and status.
3. Feeling of insufficient competence outside their area of “expertise.”
4. Lack of training in the use of mass media and in facing nonacademic audiences.
5. Negative attitude toward expressing “subjective” opinions and valuations, or violating norms of “objectivity”; reluctance to enter controversial issues.
6. Fear that colleagues or bosses will think they dabble in irrelevant controversial fields and go public for glory or publicity.
7. Fear of fellow researchers, institutional personnel or administrations; fear of the stigma “unscientific” (ibid., p. 513).

One of the dangers common to the two movements is elitism. It “lurks whenever a field has a strong academic foothold. Whether the root of elitism is arrogance from within the ivory tower or fear from without, it is always a danger. There is no hiding the fact that much of the current interest in conservation biology is occurring within academic circles” (ibid., p. 5). The deep ecology movement faces a danger of being too closely associated with the small group of deep ecology theorists, thereby obstructing the insight that the overwhelming mass of supporters do not publish papers or speak over the radio. These supporters form the backbone of the move-

ment. Their commitment manifests itself in the direct actions going on all over the world. We need the activism of millions of people with the basic attitude of supporters of the movement.

The two movements have another danger in common, "isolation—elitism's child." We should seek contact with groups competing with us in making an impact on the public, avoiding false pretensions and sectarianism. Some supporters of the deep ecology movement, like myself, are professional philosophers and theoreticians. We ask about the ultimate premises of sayings such as "Every living creature has intrinsic (or internal) value (or worth)." We may ask, Why is it so and what exactly does it mean? What does it mean that we do something for its own sake, and why should we do it? What is the relation of Aldo Leopold's criterion in his *Sand County Almanac* (1966)—"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community"—to general ethics, for example, dealing with friends stuck in the mud or babies starving? Answers differ. According to supporters who are not inclined to ask such questions, nothing much comes out of philosophical speculation. Nevertheless, the unphilosophically minded, as much as the professors, somehow assume when acting in grave conflicts that their decisions are compatible with an ultimate basis, whether religious or otherwise. We assume some kind of "ecosophy," some kind of wisdom, which we are able to verbalize only imperfectly and fragmentarily. (A recent attempt to verbalize such wisdom is offered in Alan Drengson's *Beyond Environmental Crisis* [1989].)

Whatever happens in the years to come, one may expect conservation biology, as a distinguished "mission oriented crisis discipline," to inform us of great successes as well as great failures. Let us hope the former will color the news!

Letter Sent October 1971 to the King of Nepal

Great mountains have since remote antiquity been the object of religious cults. They have been symbols of the highest, the sublime, the perfect, the imperishable, the unsurpassable and unreachable. And of course, symbols of deity.

Those who look upon the great mountains as temples may not hesitate to climb them, only they do it with an attitude acceptable in or on a temple. But to those who rather feel them as symbols of the highest and the unreachable and who reject climbing the summits: it only shows the vanity and impudence and also dullness of mankind to carry out an act symbolizing the dethronement of God and the conquest of the unreachable.

I have belonged to the former group, thinking of mountains as temples and symbols of what is both good and greater than man. Like many others I have spoiled a lot of mountains that could have remained unclimbed, undesecrated.

On behalf of a large section of mountaineers I beseech your Majesty to declare some of your still unclimbed mountains to be holy and not to be climbed.

One of the most holy mountains still left in your country is Gauri Shankar. I propose that the whole mountain be declared holy and untouchable, or its upper parts, let us say above 6,700 meters. The summit is 7,143 meters.

There are, of course, other mountains that in deference to a widespread attitude all over the world should be declared out of reach. In this letter I

This letter first appeared in *The Autobiography of a Shipping Man*, edited by Earling D. Naess (Colchester, England: Seatrade Publications, 1977), 252–53.

DEEP ECOLOGY PRACTICES

speak of Gauri Shankar because a group of Norwegian climbers and philosophers have wished to stay on the slopes and precipices of Gauri Shankar, combining veneration of that great mountain with climbing and enjoyment of its surroundings.¹

We make up only one of the many groups that try to change the attitude of highly industrialized societies toward nature. Climbing as a kind of conquest and subjection of mountains under the power of man belongs to the sick ideas of people out of touch with nature. It was a great moment when Sherpas and others from your part of the world asked that the highest points on certain peaks should remain untouched. But the rapidly diminishing number of untouched great mountains in the Himalayas, as well as in other parts of the world, has shown that their requests have been all too modest. It is time now, in the international year of nature preservation, to make bold steps forward before it is too late.

Most respectfully,
Arne Naess

Migration and Ecological Unsustainability

Before entering the discussion of migration, I shall mention a sort of emigration that is uncommon, but of increasing importance. There is a movement of emigration that roughly may be described as follows.

People from the rich, consumerist countries emigrate to poor countries and settle down for life. They live a rich life using simple means compared to what they did before leaving their native country, and certainly using simpler means than the rich in the poor countries. They and their children adapt to the new culture to an extent sufficient to enjoy good and close relations with the local people.

This kind of rich-to-poor emigration does not involve many people but is a highly instructive subject for research and not completely without influence both in the rich and in the poor countries. In the rich countries the influence is in part due to the fairly large literature created by the emigrants and by the work of social scientists and analysts.

There is also a movement from poor to rich and back. In this case the emigrants return to their own country after some years away, traveling once or several times, continuing to live in harmony with the same principles. Both migrations favor reduction of unsustainability.

Ecological unsustainability in the richest countries is still increasing. In 1983 *The World Conservation Strategy* pictured an equation: on the left-hand side was one man, a Dane; on the right-hand side were forty Somalis. The meaning: during the lifetime of one member of a rich industrial state, he interferes as much with the ecosystems of the planet as do about forty Somalis. Each of the children of one young Somali who emigrates to Den-

This article was written in 1993. It is being published here for the first time.

mark interferes forty times as much as they would have done if this young Somali had stayed at “home”—if we presume he had a sort of home. The unsustainability in his new home increases. Perhaps, though, people in the rich countries could learn from immigrants to downscale consumption? Unfortunately, the outlook for this is very bad, and not much can be expected in the near future. What happens is that because children of immigrants have low-paid jobs, they do not quite reach the average consumerism level.

From an ecological point of view, it is convenient to distinguish the three cases, the settling and movement of individuals from one of high unsustainability increase to one of low unsustainability increase, and the opposite, and that relating to roughly equal status. If the movement does not stretch over generations, the negative effects of the poor-to-rich movements are less serious, because the adoption of the consumerist lifestyle often is incomplete during the first generation. Children of immigrants adapt more closely to the established norms.

Let us approach the ethical aspect of immigration, and tentatively distinguish three categories of immigrants from poor to rich countries. The first contains migrants who *prefer* to live in country *A* rather than *B*, perhaps love, wish, and long to live in *A* rather than *B*, most often for economic reasons.

The second category equates to “refugees” according to more or less international criteria. Most of them are classed as refugees for political or religious reasons. They often maintain that there is a fair chance that they will be imprisoned or otherwise seriously discriminated against if they remain in their home countries. Hundreds of millions of people live where nobody can be sure that he will not suddenly be imprisoned or shot, even if he does not belong to organizations trying to overturn the government, even if he does not criticize the established order.

In what follows I focus on those refugees whose intention it is to *remain indefinitely* in the new country. At the moment (1993), conditions in former Yugoslavia are such that there is a great need for temporary emigration, but not to leave their communities for good. I am not talking about them as immigrants in the new country.

The third category contains two very different groups: the desperately needy from a material point of view, and members of the active political

and social nonviolent opposition to brutal authoritarian regimes. They are regularly imprisoned, tortured, or killed, and their families are threatened in a most infamous way.

The weight of purely ecological considerations seems to me indisputable only when applied to the first category. Any responsible ecological policy will discourage or tend to minimize migration of the first kind. The two great goals, reduction of total consumption and reduction of population, become more difficult to reach. The economic pressure to maintain or even increase private per capita consumption is so strong, in part because it is believed to be the decisive means to reduce unemployment, that reduction of population must be seriously considered.

It takes strong nerves to live under brutal authoritarianism without serious loss of life quality. It shows ethical strength when people aware of the increasing ecological unsustainability nevertheless insist that rich countries ought to accept more immigrants of the second category. How can we reject unfortunate people *knocking at our door*? Apart from the ethical argument, it has been (seriously?) suggested that if a hundred million people from the poor world settled in the rich, the per capita consumption might decrease even if the governments desperately tried to keep it up. If what is maintained in the following is tenable, a gigantic poor-to-rich-country migration does not solve any major problems.

The third category of people live under conditions materially so terrible or so dangerous that they must be accorded the highest priority. The desperately needy are mostly not able to reach our airports or even our borders. Many are in a condition that precludes even being transported to our countries, but there are also many families who would stand transportation and who would with great certainty be helped out of a status of *extreme suffering*. As I see it, they must be accorded a priority over people who are having a bad time, who certainly suffer, but are not in a state which we cannot but assume is truly terrifying.

The same level of priority must, as I see it, be accorded the active opposition and their families, people who courageously risk their lives fighting some of the causes of the miserable state of affairs in a large number of countries.

Not very long ago, it was fairly generally accepted as a good and important thing to hand out some money to beggars. Their need was so obvi-

ous and so near. Then came a period of reflection: the community must try to help in a way less arbitrary than by handouts to people able and willing to ask for small coins. Today, I think we have to consider how we can best decrease extreme suffering, whether the victims are able to knock on our doors or not.

A similar need for reflection makes itself felt when we assess the urgency of stopping the increase of ecological unsustainability. It has to do with “discounting” the future, the ethical abnormality of not taking seriously the life conditions of our children and grandchildren, pushing problems over to them—and doing this in spite of the insight that if we continue to support irresponsible policies, the problem of reaching sustainability will only become much greater. We refuse to carry a small load, thereby making it necessary for the next generations to carry a very much larger one.

The Third World countries suffer from migrations on a scale unknown in the rich countries. That from Bangladesh to India some years ago is a case in point. The rich countries have the means to help in such cases, but they do practically nothing. They could, for example, help solve the housing and school problems. Applying the cost-benefit criterion, one can do more for more people in that way than by putting Third World people in a rich country. Thus, the ethical question has a solution. It requires, however, that geographical distance be taken less seriously and that the increasing ecological unsustainability be taken more seriously. To help the Third World with its formidable migration problems provides us with the opportunity to help people increase their quality of life from a very low level to a significantly higher one while remaining within a culture in which they can feel at home, and feel competent and adequate.

Why do we have to give the people who must be assumed to be in a state of extreme suffering the highest priority? Why can we not just say that suffering is suffering? Why actively search for the worst cases, which presumably will require much work and an intolerable amount of arbitrariness? As to the latter, immigration officers already face that problem in assessing applications from people of the first and second categories. Active search may decrease arbitrariness, because those who are picked out are primarily those whose conditions *without doubt* are extreme.

The first question leads inevitably to the philosophical *problématique* of intensities versus quantities. (If we add warm water to a bathtub contain-

ing warm water, this will not make the water hot. Temperature is an intensity. Addition does not count.)

Suppose we are in a position *either* to relieve one human being of a moderate pain *or* to relieve another human being suffering an evidently stronger or more intense pain. If other relevant conditions are equal, we naturally focus on the one with the more intense pain. Suppose, however, that we are in a position to relieve either ten people of a moderate pain or one person of a more intense pain. What would we do? We assume that the case clearly permits a comparison of the degrees of pain. If we decide to relieve the one suffering intensively, we follow what we may call the principle of intensity applied to pain. It is necessary here to use *pain* in the sense of *felt* pain. We are concerned with feelings. *Felt* pain has intensities, and the calculus of adding and subtracting quantities of pained people does not apply. That is, when two people are in pain, that does not create a greater or more intense pain. (What about mutual influence? It changes feelings. Yes, but consideration of such influences belongs to the assessment of causes and effects of the felt feeling, not to the felt feeling itself.)

If by chance 1,000 people each sit down on a sharp nail (independent of one another and assuming for the sake of simplicity that there is a definite standard of pain associated with sitting down like that, and also a common pain threshold), no terrible pain is created. No pain a thousand times stronger, or even just a little more intense, emerges. That is, there is no stronger pain than if only one person at that moment had sat down on a nail. Because it is often difficult and resource-consuming to conclude rationally who suffers the worst among people we are in a position to help, we tend to let numbers decide. Often, we are *not* confronted with excessive difficulties. The same holds for assessing the graveness of threats involving clear risk of extreme suffering. A freedom fighter under some of the cruel regimes risks torture all the time, repeated torture until he breaks down definitively or dies. That is *evidently* a much more severe threat than the threat experienced by the average citizen of the country.

When we have to decide which categories of refugees to help, the principle of intensity may be applied without great arbitrariness. There are a multitude of people who are more or less helpless and who with great certainty can be understood to suffer greatly. The conditions in certain Third (and Fourth) World countries are such that, in my opinion, we in many

cases have to give them priority. Typically they are people with no formal education, often old and attached to big families. They adapt only with great difficulties to conditions in the rich countries. They must be helped where they are, in their own countries. Many young people in the rich countries are willing to help by spending a few years in a poor country, but then they must be assured that they get jobs when they return home.

Experience tells us that foreign aid rarely manages to reach satisfactorily those who need it. This owes to some extent to the low priority given to the organization of the aid. When high priority, including appropriate education of people sent into the country, is afforded, and no war going on, the aid is not less effectively distributed than aid in one's own country. Foreign aid must be increased, not decreased.

If these guidelines are followed would there be less migration from poor to rich countries? Not necessarily, and not in some cases—for example, Norway and Sweden. Norway experienced what it meant to live under a tyrannical government during the Nazi occupation of 1940–45. People who worked in the resistance movement against the occupiers could be helped to escape to Sweden or Great Britain when in great danger of being caught by the Gestapo. Appropriate secret organizations saw to that. Thousands escaped concentration camps and repeated systematic torture. Nobody could be sure that, under torture, he or she would be able to keep silent about things the Gestapo wanted to know. Escape was important for the “homefront.” Sweden was aware of the value of its help. What I am driving at is the paramount importance for freedom fighters in countries not just mistreating people but using systematic torture, to know that organized escape routes exist to other countries. Norway and some other countries might organize escape routes, receiving freedom fighters in grave peril and their threatened family members. This would be a kind of *active* immigration policy.

The tyrannical governments would not like this “emigration.” They would protest vigorously, but to no avail. Information about freedom fighters in grave danger can be obtained through normal international channels. Amnesty International provides one of them. Amnesty International must not get into trouble. Therefore, it can only do what it always has done: keep its files open for those who need information. What I propose is simply a more active refugee policy for a category of people who desperately need to

leave their country for good or for a time. It is at the same time a demonstration against torture, which many of us consider ethically to be on a more sinister level than straight killing of opponents. Torture is a fundamental attack on human dignity.

A main philosophical basis of the above proposal is, in my opinion, to be found in the acceptance of the intensity principle and some of its limited consequences of relevance to the immigration policies of the rich countries. I would find it of considerable value to get the proposal widely discussed.

Philosophy of Wolf Policies I: General Principles and Preliminary Exploration of Selected Norms

Coauthored with Ivar Mysterud

We, as philosopher and biologist, here present some preliminary explorations of values and norms of importance in the wolf-human relationship. The presentation is centered on problems as we see them from the modern wolf range in Norway, where there *should* be a mixed community of sheep, wolves, and human beings. At present we have 3.2 million sheep, 4.1 million human beings, and 5–10 wolves. The wolves are confined to a small area containing small scattered sheep farms. The owners, with local approval, do not accept the wolves. What norms should be considered in the process of changing this wolf/sheep ratio slightly in favor of wolves? How can we work today for a viable population of wolves? This article presents some general principles and philosophical methods for discussion in the spheres of ethical attitudes and opinions in norm conflicts concerning wolves. Important is an understanding of the logical priority of the normative system, and the need for it in a systematic analysis. This should be used extensively as an analytic tool in the many intricate problems of wolf management, some of which go all the way down to the rock bottom of philosophy and political ideology.

Wolves (*Canis lupus*) and human beings are carnivores, and domestic sheep (*Ovis aries*) are food for both of them. Depredation of sheep might therefore be interpreted as competition for food between wolves and human

This article was reprinted with permission from *Conservation Biology* (Oxford: Blackwell Publishing) 1 (May 1987): 22–34.

beings. The raising of sheep, however, is also economics for the sheepholder, who in Norway is part of a farming culture that has traditionally invested in bounties to get rid of wolves. Other groups identifying with trends in modern industrial culture invest money in the opposite, to experience and enjoy wolves. A collision of subcultures?

The wolf is today nominally protected by law in Norway and Sweden. Nevertheless, what man should and should not do to sheep and wolves is a grave question that illustrates well the problems of letting large predators live in sparsely populated areas. The problems are at present under intense debate.

The debate goes all the way down to the rock-bottom problems of philosophy and political ideology. The practical solutions to the so-called wolf problem reveal philosophical premises as much as they reflect concrete economic and other mundane interests. Philosophical research attempts to codify our deepest and most comprehensive attitudes and beliefs. This philosophical aspect is essential when we try to codify our attitudes toward nonhuman living beings. We recognize a "wolf problem" as well as a "human problem."

"Live and Let Live!" Inescapable Identification

The basic development of human behavior patterns seems to have provided us with an inescapable feeling of kinship with all living beings, but only if our culture, society, or group membership does not actively inhibit this feeling. From an early age we "identify" and perceive ourselves in something else.¹ The proposition that we only perceive *similarity* with other kinds of living beings is based on a misunderstanding. The spontaneous experience of relatedness is better expressed by the term *sameness*; that is, *identity*. It is, of course, an identity with awesome differences: we can change our attention and immediately be aware of profound differences. One's dog is vastly different from oneself, but we intuitively identify strongly with it as "a member of the family."

One of the most compelling cases of identification is furnished by our awareness of suffering. Even if we do not think that plants suffer, plants have traits that we spontaneously perceive as symptomatic of imperfect

conditions of well-being. We actually see them suffer from dryness, heat, cold, or lack of nutrition as we see the suffering of human beings.

Identification need not result in love. We may see our own bad characteristics in an animal. Except in people who are well acquainted with them, rats elicit disgust for obvious social reasons. The cultural setting of wolves is similar but formidable in its complexity and variation. Naturalists and mammalogists have “lived with” wolves and followed up with extensive reports.² Not surprisingly, the process of identification has been intense and positive in these cases. So far, however, the general public inside wolf localities has scarcely been influenced by the rapidly increasing prowolf literature.

Even exquisitely “ugly” animals such as the Tasmanian devil (*Sarcophilus ursinus*), which seems to be unflinchingly aggressive toward human beings and completely devoid of gratitude for whatever we do to satisfy its hunger and other needs, elicit sympathy and respect not only when considered *sub specie aeternitatis*, a natural wonder, part of the richness and diversity of life on the planet, but also when regarded as a symbol of our own aggressiveness and lack of gratitude. The Tasmanian devil permits us to laugh at ourselves.

Identification motivates norms of at least partial protection: rules of how to respect the dignity and stature of even an obnoxious animal are similar to our rules of respect for the dignity of murderers in prison. Such norms are, of course, also established through the operation of other motives, but identification must be considered if we are truly to understand both the strength of protective efforts in favor of wolves and the passionate urge to exterminate them.

Mixed Communities with Wolves, Sheep, and Sheep Owners

Sociology distinguishes *Gemeinschaft* (community) from *Gesellschaft* (society). The distinction is somewhat differently defined by different authors. In sociology, “community” is defined in such a way that only human beings are considered members. Concepts of human community are obviously needed, but today broader concepts are also required. We need to break down some of the barriers commonly erected between humankind and other forms of life within our common space. We need a concept of mixed

community, defined in such a way that human beings and *limited groups* of animals that play a more or less well-known role in human affairs are included as members.³

It is unfortunate that the organizational cleavage between the social and natural sciences has made many students of the former seemingly incapable of conceiving mixed communities. Dogs and cats have long been considered sort of members of the family, not quite on par with children and the mentally handicapped, but certainly the subject of privileges and status not accorded people or animals outside the family. The same holds true of sheep, cows, pigs, and other mammals of the same category in traditional herder communities.

The concept of "mixed community" may be seen as a subconcept of a general "life community" embracing all kinds of life. Considering that human beings know about only a microscopic part of the living beings to which they are hosts and even less of those living beings in their nearest environment, human relations with all other members of a "life community" are significantly different from those within mixed communities.

We do not favor the term *life community* because of the abstractness of its relations. We follow ways of thinking conceptualized in phenomenological philosophy. It is presumed that there are conscious relationships between members of a mixed community and an occasional awareness of one another even when there is no physical nearness. This concept of mixed community does not compete with concepts within biology. Plant ecology and animal ecology embrace the collection of species populations in a given space and treat them collectively in the field of community ecology.⁴

For thousands of years the wolf has been part of mixed communities in the Nordic countries. Until this century, the fairly large number of wolves and the limitations of available weapons made wolves a threat. This has totally changed. Furthermore, the deep ecological movement, the recent extensive prowolf literature, and the material richness of Nordic countries have, as an inevitable consequence, influenced the willingness of people outside wolf localities to give wolves a new and better chance to survive.

Here are a few facts about our Norwegian mixed community. At present (1987) we are 4.1 million human beings and 2.3 million sheep on 323,886 square kilometers of land (Spitsbergen and Jan Mayen excluded). Norway is part of the great Fenno-Scandinavian mountain range, and 50

percent of the land area of the country is bedrock. A mere 2.8 percent of the land is cultivated soil, 5 percent is lakes, 20 percent is productive forest, and less than 1 percent is populated. Norway is the country with the second lowest population density in Europe, although it is the fifth largest in terms of area. The human population density is 13.1 inhabitants per square kilometer.

The wolf has been regarded as nearly extinct and is at present directly threatened in Norway. Wolf numbers were estimated at five to ten during the 1960s and 1970s and at fourteen to twenty during the early 1980s.⁵ Today these “Norwegian” animals roam a limited area covering part of Sweden and perhaps part of Finland. Probably five to ten wolves share the Norwegian area with sheep and human beings; this corresponds to a wolf population of fewer than 0.0005 individuals per square kilometer. They kill at present about 400 sheep per year, fewer than 0.2 per thousand of the country’s total sheep stock.

It is paradoxical that this very small sheep loss compared to the total sheep loss and the minute population of wolves has elicited such vigorous debate and socially important plans of action at local and central levels of administration and management. The paradoxical situation can only be explained by searching much wider and deeper than the biology and economics of wolves. It leads us to consider the unique position of wolves within Norwegian and many other cultures.

It is irrelevant that the total number of sheep in Norway is vastly greater than the number of wolves. The same holds true when comparing the number of sheep killed by wolves with the large number of sheep that die or disappear because of inadequate efforts to protect them. What counts is the attitude in local communities within the wolf area. Here people live and support themselves through small-scale agriculture and husbandry. They wish and demand to continue with what they have done for generations. They are not willing to go into agribusiness or any other large-scale business in “safer” areas; they are not interested in living in cities, not eager to acquire power as members of the bureaucracy or by other kinds of “success.” They consider the loss of thousands of sheep from traffic accidents, the sudden onset of winter, and so forth, as inevitable, but the loss of twenty sheep to wolves as easily avoidable. Just kill the wolf! The comparison, though, is not quite fair. If an owner of forty sheep lost twenty in traffic, he

understandably would make a fuss about it and ask for full compensation. The actual situation is that a small-scale sheep owner suddenly loses a considerable part of his herd by wolf attack and the *whole community* is outraged.

“So what?” officials in many countries would say, but Norway is a welfare state and supports a cultural philosophy stressing intense respect for old, local, nonurban communities. Communities that mobilize to fight any policies protecting wolves are in ecologically long-term-sustainable *Homo sapiens* habitats. Northern and western Europe, which suffers increasing ecological destruction through unsustainable development, is an example. These communities exemplify subcultures in danger of being destroyed for reasons not very different from those that are bringing wolves to the verge of extinction: habitat deterioration and shrinkage. That is the awkward situation in the question of wolf policy: respect for wolves, but also respect for old, ecologically unobjectionable human communities.

Wolf Policies Reflect Philosophies as Total Views

A philosophy of the wolf-human relationship must be part of a more general philosophy. How general? *Philo-sofia* is love of wisdom, and wisdom must show up in wise action as implementation of wise decisions. Knowledge is not enough. Decisions, if they are to be wise, must take *everything relevant* into account. Because knowledge of what will be the immediate, not to mention the remote, consequences of an action is limited, the decision will be made on the basis of uncertain premises of very different kinds. Therefore *in principle* the premises of any decision are *all-embracing*. In wolf-human philosophy we neglect astronomy and astrology, implicitly asserting the first irrelevant and the second perhaps a more complicated verdict. We cannot neglect politics, and politics is from a cognitive (knowledge- and acquaintance-related) point of view based on a political philosophy. An example concerns the justification of a central government or a national majority decision to make illegal the shooting of wolves by locals. Hypotheses in sociology, psychology, and cultural anthropology are clearly relevant.⁶ They concern our decisions, and are expressed here by sentences ending with a period. A philosophy is needed that connects the hypotheses with norms—sentences ending not with a period but with an exclamation mark. We believe that the normative aspect of the basis of wolf policies

needs more comprehensive and clear articulation. We shall, therefore, be somewhat pedantic in our use of exclamation marks.

It is a common notion that every animal, however fierce and destructive, has a place in the whole of nature (Naess 1985a: 68–76). The notion is especially forceful when we talk about the larger ones and not “animals” such as bacteria. The idea that each species of animal has a place in nature has a strong implicit normative aspect. We might reformulate and express this in many ways: “Every kind of animal rightfully possesses a place in the whole!” “Mankind cannot violate this right!” “However, we may defend ourselves against attacks and hunt for purposes of food and clothing!”

Empirical studies suggest that such a normative view is prevalent in Norway, and we guess it prevails in many other countries as well. This should be taken into account when planning controversial conservation measures.

The view clearly applies to wolves, but it does not automatically apply to wolves in every particular region, say, in Norway. People know that there are plenty of wolves in other countries, for example, in the Soviet Union. There is no question of global extinction of the species. However, there is an awareness that wolves have, until the twentieth century, been common in Norway. They “belonged” there, but there were no norms discouraging killing, no limitation of the right to kill on sight. Today we think one may say that the prevalent, if unformulated, view is that the wolf is not only a genuine part of Norwegian nature but a genuine part of mixed communities.

No empirical studies have been done about this, and, unfortunately, such studies of opinions about wolves in Norway have little chance of revealing genuine attitudes. Those for or against wolf protection seek principally to influence government policy one way or another. Opinions are “mobilized” as in wartime. The general philosophical and ethical attitude in favor of having a viable population of wolves in Norway is strong, but so is that of people concerned with protecting their livestock and economy. The resulting norm conflict is common in other countries,⁷ but the long-range concern has, for simple reasons, not been clearly or repeatedly formulated in the conflict.

To what extent *should* prejudices, unreasonable fear, and cultural stereotypes of wolves be taken into account in policy decisions? A direct answer will properly end with an exclamation mark: “We *should* do such and such!” Are we really in a position to judge the threat to children, for ex-

ample, from immature wolves straying near settlements? A direct answer may end with a period: "No." This is a *hypothesis* in the form of a negation, but is the direct answer certain enough to *justify* our including it in a research report? Direct answer: "No!"

The decisions of wildlife managers have intricate, nonnormative economic aspects.⁸ To what extent, though, is it *justifiable* to "commercialize" wolves through safaris and placate local communities by finding ways of making wolves as "profitable" as sheep are today? What is the normative relevance of the pain inflicted on sheep? Should their owners or the Department of the Environment or some other institution or group finance protection of some sort? The ethical and legal problems are difficult and of necessity *involve a fundamental priority of values*.⁹

For simplicity of discussion we need some kind of model to facilitate the complex pattern of argument. We propose an ecosophic model in the form of a normative system. A normative system is not a psychological system showing how we actually think and how people or institutions actually arrive at decisions. It is not a causal or genetic system. It shows logical priority: a premise is logically prior to a conclusion. In it, fundamental value priorities form ultimate *premises*. The term is used for a set of norms and hypotheses arranged to show what is derived from what—rarely by *strict* logical inference, but derived in a looser way from premises.¹⁰

In a normative system *three levels* may be distinguished. One contains ultimate or fundamental norms and hypotheses. A second consists of intermediate norms derived from the first-level sentences plus further hypotheses. A third level contains sentences expressing concrete decisions in specific situations. The situations are described by factual assertions, or hypotheses (figure 7).

A model of such a system is not constructed once and for all but is articulated as we continue to debate the merits and demerits of alternative decisions, using what we have already articulated and adding what is needed to reach new decisions.

Two Norms About Suffering

Our first example is of a norm of fairly high standing within a model of what we call Ecosophy T:

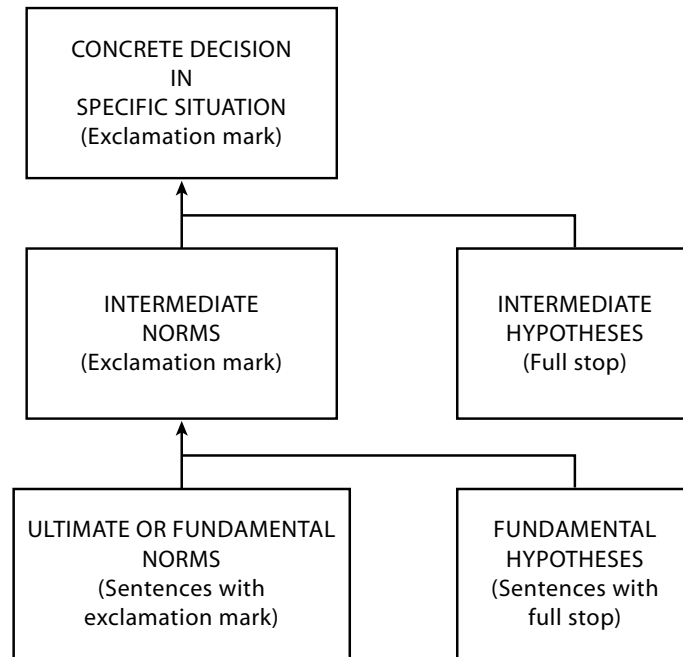


Figure 7. Normative System Diagram Showing Logical Priorities. This is not a diagram picturing the genesis of a decision; it only traces the logical derivation. It does not explain decisions on the basis of biology, sociology, or psychology, nor is it causal or motivational.

A_1 Severe suffering endured by a living being x is of no less negative value than severe suffering endured by a living being y , whatever the species or population of x and y !

The term *living being* is ambiguous. It includes the human species, but, until further notice, we shall think mostly of nonhumans. The norm A_1 is highly relevant in discussing the severe pain of mauled sheep and of other domestic animals attacked but not killed by wolves or other large carnivores. We believe that, among certain groups of wolf enthusiasts, these pains are not taken seriously enough. Suffering¹¹ comprises not only all sorts of extreme fear, panic, and terror, but also an increase in general nervousness. It may affect a whole herd, even if only one sheep is physically attacked.

A second example of a norm in Ecosophy T:

A₂ Human beings have an obligation not to place their domestic animals in situations in which there is a significant risk of severe suffering!

Who is responsible for the suffering of sheep in a mixed community including wolves? Laws against killing the wolves may be thought to make the lawmaker to some extent responsible, thereby obliging him to help protect the sheep by, for example, financing shepherds.

Scarcely covered by norm A₁ is the general *decrease of life quality* of a group or herd of sheep that has suffered after a wolf attack. This decrease is, in part, reflected in a decrease of economic value of the affected sheep on the market.¹² That, however, is another matter. As for a definition of “life quality,” we limit ourselves to referring to recent literature on the subject.¹³

Rational Policies Rest on Ultimate Norms

A₃ Long-range global concern for the life conditions on our planet requires national announcement and acceptance of long-range global norms for directing conservation strategies!

Standard cost-benefit analysis cannot do the whole job. Factual analysis presupposes norms in order to arrive at proposals for decisions. For example, we must ask “Benefit for which ethically acceptable goals? for which long-range global goals?” Adequate wolf policies require consideration of ultimate or fundamental norms and their application to local and global strategies of action. The ultimate question is, Cost-benefit in relation to which ultimate norms?

The appropriate concerns correlate with levels of education. It is clearly the responsibility of the highly educated (in the limited sense of university education) to articulate the norms and hypotheses beyond standard cost-benefit analysis. Unfortunately, though, experts and researchers have a tendency to avoid norms and values at a fundamental level.¹⁴ One way they justify this is to proclaim that technology and science are based

only on facts and hypotheses, not norms, not on sentences with unavoidable, irreducible exclamation marks. This claim of “objectivity” is an illusion well worth inspecting in some detail.

Given that chains of derivation cannot be infinite, they must start with definite statements.¹⁵ One can justify *A* with *B* and *B* with *C*, but at a definite time in a definite situation one has to stop somewhere—taking certain norms as ultimate or fundamental. In methodology there are *rules* of procedure; in logic, *rules* of inference. These rules can be derived from fundamental rules. A rule as a kind of norm is properly expressed with an exclamation mark, not a period. That a rule, *if followed*, has certain consequences may be expressed by a sentence ending with a period, but a sentence saying that the rule or the consequence is good should properly end with an exclamation mark. Most rules assumed to be fundamental seem to be absolutely obvious, but sometimes derived rules seem more intuitively obvious (e.g., in arithmetic). In normative systems, the fundamental norms, which constitute kinds of rules, normally appear to be obviously valid to those accepting the system. One may say that they tend to be accepted through *intuition*, like the basic rules of logical inference. In the philosophy of mathematics and metamathematics, controversies exist about competing systems (constructivist, logicist, formalist, intuitionist, etc.) in which intuitive acceptance plays an inescapable role.

The importance of the above stems from the widespread, unsupportable view that if one is a scientist one starts and ends with factual statements—sentences ending with periods. To the contrary, one never gets going without methodological and logical *rules*, and some of them cannot be validated *within* one’s system. *Unvalidated rules are necessary to validate a claim that such and such is a fact.* To show that a fundamental rule (R_1) is useful, successful, or valid, one must include these properties in the conclusion one infers from premises—say, observation sentences—but how, from those premises, does one reach a conclusion? Only by rules. So one either uses R_1 , going in circles, or a new fundamental rule, R_2 , whereby the same problem of how to “prove” that rule is encountered.

Appreciation of the necessity of taking some rules as fundamental in scientific work makes it easier to accept that we have to do the same in handling normative systems. Here the most important rules are of an ethical

character. However, that should not make one call them subjective or expressions of feeling. There is less agreement, it seems, and certainly less *clear* disagreement, on fundamental ethical views than on methodology and logic. The *statistics* of agreement or disagreement do not, however, make them subjective or objective in any strict sense.

Some researchers think that by sticking to science and avoiding open, clear *announcements of ethical views* in questions of wolf management they can remain safely within the realm of what can be shown and tested, but by definition, *if* rule R_1 is taken as fundamental it cannot be tested. It can be exchanged with R_2 , and this change may be psychologically *motivated*, but there is no question of showing and testing in a methodological sense. Changes of paradigm in research furnish ample examples (see Kuhn 1970).

Speaking as a scientist is not like speaking as a machine; the scientist cannot avoid speaking as a responsible person. He is not in a social and ethical vacuum. Researchers dealing with the "wolf problem" inevitably take part in discussions both locally in wolf territory and centrally among policy makers. They can, of course, artificially avoid explicit announcements of norms by always using an if-sentence: if we accept the norms (and hypotheses) such and such, then the decision $D_1!$ will lead to contradiction, but not $D_2!$ This use of conditional sentences in research reports will not and should not prevent one from revealing which norms one personally accepts as valid. To do this today is a social obligation. The deterioration of life conditions on this planet as seen by researchers necessitates activity at the social and political levels. For some of us, the fundamental basis of this obligation is provided by norms elicited inevitably through the process of identification: we cannot subscribe to the motto "Man apart!" At least one sociobiologist has found it problematic as to how social obligations expressed by sentences with an exclamation mark can enter the system. Obligations belong to social philosophy, and their normative premises are requirements announcing what is considered a good society and what must be done to keep it functioning (Rawls 1971: 108, 344–48). In industrial societies obligations (and duties) attach to all public offices, but even today many researchers and experts seem to think that they have no social obligations for the actual consequences that their publications and expertise produce.

Members of the ministry of environment have, in Scandinavia and

elsewhere, obligations either to refrain from severe criticism of their government or to resign. In their nature conservation policy they usually try to push their government in the right direction, but they are narrowly limited in what they can do. Researchers and experts have no such obligations. On the contrary, we believe they have a valid obligation never to act as mere functionaries. The successful performance of their task in modern society depends upon their ability to remain independent from government *in their public views* and, in general, from those who finance their activity. The public has a right to know where it stands as people. The more research and expertise contribute to public policies concerning wolves and other matters, the more important it is that the public be properly informed. The obligation is heavy but inevitable.

Protection of Sheep Against Suffering

If x and y are calamities and *more* people suffer in y than in x , then y is properly called a greater calamity. Applied to wolf depredation of sheep, we tentatively (as always in handling norm systematizations) accept the following:

A_4 If, of two decisions, the first is more likely than the second to contribute to the probability that a greater number of animals will suffer, then the second is to be taken *pari passu* (other things being equal)!

We should be careful when talking about *greater* suffering. Referring to consciously experienced suffering, including simple pain, we have to do so with a *quality* admitting to degrees of intensity, but in an important sense unquantifiable and nonadditive.

Strictly speaking, *experienced* suffering is not additive. If suffering could be measured and two geographically unrelated animals suffered with an intensity of degree 3, this would not result in a suffering of degree 6. Suffering at other places in the Milky Way does not add to our suffering as long as we do not have any relation to that suffering. Here is a very simple case of nonadditivity: if we experience the water in a tub as pleasantly warm, it does not get hotter if we add more water of the same temperature.

Suffering is a quality, so we must be careful or we get into a lot of philosophical trouble. Of course, there are clear cases in which we can prop-

erly speak of more or less, mainly when it involves more or less *intense* suffering. Qualities admit of differences in intensity. In our decisions we are justified in making number relevant, and we ask, Exactly how significant is number in judging suffering among animals?

These reflections have to do with the crucial point that shooting or continually harassing a single wolf results in the suffering of only one, whereas the decision not to shoot a wolf sometimes has the suffering of a great number of sheep as a result. Exactly how relevant is number? We say very little in terms of *experienced* suffering, but if a wolf attacks a herd of twenty sheep, at least one of them is likely to suffer more than a hunted wolf. Most important of all, we are responsible for not making sheep suffer unduly.

Let us look at yet another norm favorable to the defense of sheep. It is argued among people eager to support conservation of wildlife that, given that there are more than two million sheep in Norway but only a handful of wolves, the violent death or suffering of a sheep should not be taken as seriously as that of a wolf. This is a very doubtful norm. We would rather accept the following:

A₅ The negative value of the severe suffering of an animal belonging to a large population has a no less negative value than that of an animal belonging to a small population!

This norm goes against the grain. It is human to treat animals more coldly when there are masses of them. In years when lemmings are abundant, people hiking with their dogs are more likely to let the dogs “have fun” with the lemmings than in years when lemmings are interesting as a rarity. We also reject the view that the sheep is a less developed, dumb animal compared to the superbly intelligent and beautiful wolf and that it therefore deserves less consideration. Beauty or intelligence is completely irrelevant in the application of the norm. There are considerable differences in identification among people. Some tend, we are glad to say, to identify positively with the underdog or ugly duckling; others identify with the winner, the clever, the intelligent, the beautiful. This influences our attitudes toward spectacular predators. Some, not all, take into account the suffering itself and our responsibility.

Let us now introduce the third of the *dramatis personae*, the local sheep-holders. When anger prompts them to go public, they tend to stress

both their economic loss through wolf predation and the suffering of sheep. They also express deep frustration and guilt because of their entirely natural feeling of responsibility for the sheep. The extreme aggression against wolves and wolf conservationists by concerned sheep-holders that is sometimes reported in newspaper articles may, in part, be explained by these feelings of guilt. Some sheep-holders even cry in hopelessness and become severely depressed when they witness the suffering of sheep but are physically and economically unable to protect them from repeated carnivore attacks. Repeated perception of the intense suffering of sheep due to wolf attacks, plus the culturally formed aversion to wolves, brings some sheep-holders into such a state of emotional agitation that they sometimes relinquish their sheep ownership and work fanatically against any kind of protection of the wolf. One may safely say that letting domesticated sheep be exposed to wolves tends locally to brutalize and dehumanize the human-animal relationship.

Man has domesticated, modified, and pitifully degraded an animal once capable of taking care of itself in wolf ranges. The result is a pathetically helpless being—the modern, economically profitable sheep, “the meat and wool producer.” When Norway was poor, sheep-holders could afford to hire shepherds; today, it is economically impossible. An ethical impasse has developed.

In recent years, organized use of grazing lands has expanded in many parts of Norway. Sheep-holders in local areas have organized in groups, each selecting a board that develops common supervision, with inspectors patrolling the grazing area and a common sheep-gathering operation during the fall. About 60 percent of the country’s sheep stock is today organized in such units,¹⁶ but because the sheep population is large and many parts of the country are rugged or bushy, it is impossible to prevent carnivore attacks. Many sheep-holders experience carnivore problems every year.

The above five norms and nonnormative statements tend to favor sheep at the expense of wolves. Now let us look at some views favoring wolves.

Protection of Wolves as Members of Mixed Communities

The scarcity of wolves in many European countries and the decrease in number of habitats—qualitatively and quantitatively—in this century is

well known (Pimlott 1975). It may be of help, however, to note that protection of a species may mean vastly different things.

In the narrowest interpretation, the sentence "Protect the wolf!" is conceived as only protecting the wolf's structural biology. The survival of specimens in zoological gardens is considered enough. Then there is an interpretation asking for at least one area on this planet where the wolf is protected, completely or at least to the extent that its natural way of life is not disastrously disturbed. A yet wider interpretation asks for the protection of areas wherever there now are wolves.

What Soulé says about relative preciousness of different populations of the same species should be borne in mind:

Returning to the population issue, we might ask if *all populations of a given species have equal value*. I think not. The value of a population, I believe, depends on its genetic uniqueness, its ecological position, and the number of extant populations. A large, genetically polymorphic population containing unique alleles or genetic combinations has greater value, for example, than a small, genetically depauperate population of the same species. Also, the fewer the populations that remain, the greater the probability of the simultaneous extinction (random or not) of *all* populations, and thus of the species. Hence, how *precious* a population is is a function of how many such populations exist.

(Soulé 1985: 730)

A still wider interpretation says that, when at all feasible, protection of wolves implies protection of existing ranges plus introduction into past habitats (e.g., those prior to 1850). Protection is sometimes proposed for traditional wolf ranges. Of course, this poses considerable problems in Europe. There are vast traditional ranges in the Soviet Union, but what about stray wolves occasionally "invading" Norway and other countries where they obviously occupied areas with considerable populations 100 years ago? Are these areas still traditional ranges? How are we to understand tradition? Clearly, where during the last 100 years sheep have been foraging and local people have been active as sheep-holders, one might as well label the area a traditional sheep range. So how do we delimit areas of some wolves, mainly strays, dispersing with no fixed home range? What is the minimum viable population size for the maintenance of "fitness and adaptive potential" among wolves? According to Soulé:

A useful device for considering the relevance of population and evolutionary genetics to conservation is the “time scale of survival.” Employing this scale, one can see, somewhat arbitrarily, three survival problems or issues: 1) the short-term issue is immediate fitness—the maintenance of vigor and fecundity during an interim holding operation, usually in an artificial environment; 2) the long-term issue is adaptation—the persistence of the vigor and evolutionary adaptation of a population in the face of a changing natural environment; 3) the third issue is evolution in the broadest sense—the continuing creation of evolutionary novelty during and by the process of specialization.

(Soulé 1980: 151)

A norm may here be tentatively formulated as

A₆ If a traditional sheep area, by decree from central authorities, is to be considered an area in which wolves are protected, it is up to the central authorities to arrange for fair and swift compensation for losses and/or financial support for hiring shepherds!

The word *fair* here denotes compensation properly adjusted to the economic level at the time of the argument.

This norm presupposes a kind of political philosophy that favors local communities in their conflict with nonlocal authorities. As for the idea of compensation by *central* institutions, it is important to add that the norms seem to imply both decentralization and centralization. This makes them controversial because local community philosophy in Scandinavia leans strongly toward decentralization. *Decentralization* ought to remain one of the key terms, but it is becoming more and more clear that strong, central authorities are also needed in matters of both local and global conservation. Cases have occurred in which local communities, not to mention local *administrative* units, have successfully opposed environmental points of view put forth by central authorities.¹⁷

It is difficult to impose wolf protection on people who give up traditional sources of income such as gathering berries and keep indoors for fear of wolves in their mixed community. People deriving income from pearl diving or other occupations in shark-infested waters acquire knowledge of the habits and signals of these predators and work out a kind of coexistence. Norway, however, has no income from wolves. Compare mixed communities with snakes. A market for snakes—e.g., Hong Kong—has elimi-

nated fear, or at least significantly influenced tolerance, of poisonous snakes within the areas of profitable snake catching or hunting. Rules of coexistence have been established. A similar development could materialize in human-wolf relations, yet it has not, so far.

If the coexistence of wolves and sheep farmers causes insolvable problems in the future, territorial changes must be considered: the removal of wolves or sheep or farmers. It now seems that moving the sheep away is not enough because of the farmers' anxiety, not least for the safety of their children. The farm families might accept moving with their sheep out of a territory if very substantial financial and other compensation were guaranteed. This solution is ethically debatable. The territorial question is not the only one, however. To "remove" farmers involuntarily is, in Norway, totally out of the question—least of all in favor of an animal! (Enforced removal because of motorways or for other purposes of development is another question.) Sheep-holders, therefore, must agree upon changing their resource regime from sheep raising to other forms if they are guaranteed economic activity by which they can secure a reasonable income during the transition period.

In any case, *if* there is to be a protected wolf area in Norway, considerable sums of money must be set aside centrally for that purpose. This might be appropriate even if the local communities gradually gain economically from their own activity due to the presence of wolves.¹⁸

So much for the vague and ambiguous sentence "Protect the wolf!" We must remember to ask specifically, Just what *degree* of protection? and just *where*? There are many pitfalls to avoid when discussing the means of protection.

Norms of protection do not follow from hypotheses about scarcity. Among many needed premises, we require general norms concerning the protection of life-forms on this planet. We can use the following three norms, which are derived directly from three still more general norms.¹⁹ Their subject is living beings in general, but these norms have a particular kind of living being as the subject, *Canis lupus*.

A₇ The well-being of the species wolf as part of human and nonhuman life on Earth has value in itself (intrinsic value, inherent value)! The value is independent of the narrow usefulness of the nonhuman world for human purposes!

- A₈ Richness and diversity of wolf races and habitats as part of the general richness and diversity of life-forms contribute to the realization of these values and are also values in themselves!
- A₉ Human beings have no right to reduce this richness and diversity, including wolf habitats and races, except to satisfy vital needs!

These norms are meant to furnish important *guidelines*. When we codify norms, as in the case of laws, certain expressions with carefully calculated ambiguity are essential for the realization of wise applications.

We shall limit ourselves to commenting on norm A₉. The general aim of this norm is to remind us that human beings are not alone on this planet and that solidarity with other forms of life requires that we consider their needs. Interference with each other's lives is, of course, unavoidable. Some things, however, we do not consider ethically justifiable to do to others, and the simple expression "You have no right to . . ." is well known from infancy to death. The same holds true for the expression "He (she) really needs such and such!" Instead of *real needs* we use in norm A₉ *vital needs*.

The term *vital need* permits considerable latitude in judgment. Differences in climate and related factors, together with differences in structures of societies as they now exist, must be considered (Maslow 1970; Kaufman 1971).

Many authors have tried to classify basic or vital needs and to clarify the philosophically important but often elusive distinction between vital needs and mere desires, wishes, and habitual inclinations. For some sheepholders, the need to protect their sheep from wolves or to be in some way compensated is today vital. It means protecting the basis of their economy and the home where they have lived for generations.²⁰

The three norms are slight reformations of the first points in an eight-point formulation of basic traits of the so-called deep ecology movement—a convenient name for a class of tendencies in contemporary environmentalism.²¹ Are we going to give up a search for still more basic views justifying our intense concern for life on Earth?

What is more or less basic or deep when applied to views? If an old lady falls into a ditch, our view is that we should do what we can to get her out. Why? We have norms of politeness, but more basic are norms saying that we should help others survive. Why survive? We have most of us a notion

that it is *good* to be alive and that suicide should be explained away—that attempts to quit life are not basically motivated by a clear rejection of being alive but are a kind of cry for help. These examples indicate a direction from less to more basic. In general, if a view as expressed by a norm, for example, is justified by another norm that bestows validity on the first one, the latter is more basic. It belongs to a deeper level of a total view.

From the point of view of philosophy, and especially the part of it sometimes called metaphysics, it is desirable to go as “deep” as possible. This does not imply, however, that we all should end up with the same metaphysics. Here only one possible position will be mentioned briefly, namely the fundamental sentences of a version of Ecosophy T. Starting from “Self-realization!” clarifications explain that the “self” here is a metaphysical entity—something perhaps being realized in the development of the cosmos. The process is one of realizing individual potentials, and this implies diversity of life-forms, including diversity of cultures. Diversity is gained by complexity; therefore, development of complexity is implied. The self is of a kind that implies the process of identification. This means that a level of complexity that fosters sensibility, the conscious goal, inevitably takes place to protect the self-realization process of all living beings—a goal of “symbiosis”—“Live and let live!” in a philosophical sense.²²

The main thing to note is that we need value strategies to guide our behavior. Otherwise, our thought has no home; we stroll around in a metaphysical nowhere on a meaningless, vast, flat plain (Devall and Sessions 1985). The articulation of these strategies of thought in the form of norms and of basic hypotheses about ecological systems can be the job of only a few, but the job is of increasing importance. It involves survival of human beings and their environment.

In conflicts about conservation policies, the supporters of Ecosophy T (the authors included) and, more generally, supporters of far-reaching, radical policies meet practical, economic, and political objections but rarely philosophical or metaphysical ones. It seems that the conscious effort to bring in the most basic questions of a philosophy of life and of our relation to nature weakens the objections to far-reaching, radical policies. The practical, economic, and political objections are in a sense admitted to be inadequate for long-range planning and policy choice. This is one of the reasons we must support training of conservation specialists in argumentation on a

philosophical level. We are not confronted with any well-articulated, anti-conservation philosophy, but with myriad conflicts of interest. Without neglecting them, we are trying to bring wide, long-range perspectives into focus.

The *dignity* of wolves has, in modern literature, been persuasively conveyed to an increasingly wide audience.²³ This opens still other spheres of debate. Do paid safaris—for example, those centering on the wilderness experience of chorus howling²⁴—commercialize the wolves and interfere with their dignity, degrading them to showpieces? Some certainly believe so, and the corresponding norms are not difficult to formulate, but they are perhaps not so easily derived from the norms and hypotheses of ecosophy. Wolves in our view are sufficiently aloof in their dignity that they are not easily ruffled by tourists well hidden in bushes. Elsewhere (Mysterud 1985), we conclude that *if* Norway is to establish preserves and areas where wolves are protected, an attempt must be made to market wolves in the broad, modern sense of the word. One way is to somehow make them economically interesting to people living inside wolf ranges. Income from safaris must be reserved for people traditionally living with the wolves.

Respect for International Agreements

Still another theme of high relevance is respect for international agreements. Considering the irrelevance of national borders in ecological matters, such agreements are of decisive importance for the future of life on Earth. The Norwegian government has ethical and tactical reasons to obey.

A tactical reason concerns repercussions if we violate agreements. For example, if Norway insists that migratory birds on their way to Norway should not be hunted in Italy, Norway's voice is little heeded if it violates international conventions concerning whales and wolves. Suppose Norway nevertheless says "No!" to wolf protection for welfare and economic reasons. Would norms of international solidarity to some degree be satisfied if Norway contributed heavily to the maintenance of protected European (e.g., Swedish or Finnish) wolf areas that have a significantly less dense human population inside wolf ranges? Our tentative answer is yes.

International opinion is probably not quite aware of the kind of scattered settlement typical of Norway and the high priority accorded to the

indefinite continuation of that structure. It belongs to one of the most outstanding features of the Nordic lifestyle and does not resemble the pattern found elsewhere in Europe. Many farmers have no close neighbors; "neighborhood" does not exist. This sometimes causes a feeling of isolation and insecurity in forested areas. The mere thought of wolves frightens isolated families. However, the international community will not be overly impressed by the difficulties cited by Norway, because the implementation of international agreements has always gone against some interests. Thousands of people and large local communities were hurt in their vital interests when nations accepted the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

If Norway or another of the world's richest nations decides to go, at least temporarily, against a wolf protection convention, it might be more easily condoned by the international public if that country instead contributed heavily to one of the many other goals of the "world conservation strategy"—such as point 12 in Section 15 in WCS:

Assistance should be made available to enable requesting nations to develop the capacity to carry out national conservation strategies, ecosystem evaluations and environmental assessments. . . .

In view of catastrophic deterioration outside Norway, millions might possibly be better spent elsewhere rather than in establishing and maintaining wolf protection areas in Norway. This possibility is mentioned here to emphasize the importance of always having both the local and the global point of view.²⁵

In accordance with our basic philosophy (Ecosophy T), a long-range goal of humankind is to let evolution on Earth continue and, to some extent, restore or at least save many wildlife habitats that are now suffering from human encroachment. Without the slightest doubt, we recommend wolves as members of the Nordic life community, but this clear theoretical acceptance of wolves on the basis of our philosophy of nature does not imply any definite practical wolf policy.

Given the complicated philosophical, cultural, political, and economic situation, a realistic and vigorous prowolf policy in Norway and Sweden may have to be accorded low priority compared with other major, central conservation efforts. Such efforts may, however, prove even more difficult to

put into practice, and in that case we would recommend going ahead with the strong wolf policy. This is a tentative, preliminary conclusion based on the argumentation in this article.

There is no end to the areas of relevance with regard to wolf policies. Here we have focused on the cultural and general philosophical aspect, neglecting the intricacies of wolf ecology and wolf conservation strategy and action programs in general. In other articles we shall consider these subjects.

Population Reduction: An Ecosophical View

The population issue raises such diverse and deep questions that we need a total view as a conceptual framework. When the articulation of such a view is largely inspired by ecology, I call it an ecosophy. We need various ecosophies. I call mine Ecosophy T. In what follows I do not defend any controversial part of that view but very briefly formulate certain views that are widespread today, and try to support them ecosophically.

- (1) The flourishing of human life and cultures is compatible with a substantial decrease of human population.
- (2) The flourishing of nonhuman life requires such a decrease.

Taken together, these two propositions form point 4 of what has been called a platform of the deep ecology movement (see, e.g., Naess 1986b: 10–31; chapter 5). The acceptance of the first proposition is, I have reason to believe, much more widespread now than it was only twenty years ago. The last part of formulation (1) is perhaps not the best phrasing of what is intended to be conveyed. An alternative is “*compatible with a substantially smaller human population.*” The critical period of decrease is then in a clear way left out of consideration. Its problems need separate treatment.

Against the second proposition it is sometimes objected that if humanity adopted an entirely different way of life, the present high number of people would not necessarily encroach upon the flourishing of nonhuman life, or at least not much more so than do other species. I agree. However, if we try to imagine how this way of life would look, the result is likely to be that we despair of its early realization. At the very least, it is irresponsible to as-

This article was written in 1987. It is being published here for the first time.

sume its realization and today reject stabilization and subsequent reduction as a distant albeit important goal. In addition to goals of change of general behavior, we must have the long-range reduction in view. Every year that goal increases in importance, every day it is relevant.

Propositions (1) and (2) concentrate on the flourishing of life. Even if "life" is taken in a wide sense, it does not cover the full range of concerns of the deep ecology movement, which of course is concerned about the Earth as a whole, including landscapes valued independently of the life-forms that sometimes live there. We are seriously concerned about the ecosphere in its widest sense, not only the biosphere (in its widest sense).

It is characteristic of the deep ecology movement that great efforts at conservation are argued *not only* as something good and profitable for human beings, but also as a task that should be carried out for the sake of what is intended to be conserved. It is worthy of conservation, independently of any narrow human interests. This is often called the nonanthropocentric or biocentric or ecocentric view. Nevertheless, in the current social and political milieu, success in conservation efforts depends heavily on arguments that *do* stress narrowly human interests, especially the requirements of human health. The supporters of the deep ecology movement combine such arguments with those that are independent of narrow human interests.¹ It is essential that "experts" and others who influence policies agree about this combination and that the public be made aware that basically there is agreement. Otherwise, the public is deceived.

Applying the above discussion to the question of human population, I shall tentatively defend a more radical proposition than (1):

- (3) The flourishing of human life and cultures requires that the human population be substantially smaller than at the present time.

With a global population of 5,000 million now and possibly 10,000 million within a couple of generations, the process of even a very slow reduction would be a formidable undertaking, perhaps a terrifying project for many. Should we, or even *can* we, contemplate such reduction over the centuries or millennia in realistic detail? Obviously not, but very long-range perspectives are necessary for the choice of wise policies *now*.

For the present discussion it is perhaps best to get rid of the term *flour-*

ishing. Instead I ask, What are the kinds of ultimate goals for humankind? Is one or more of them such that very great numbers of participants are required to maximize the prospect of realization?

The goals may be divided into individual, social (communal), and cultural. As one of the ultimate goals—that is, goals not having just instrumental character—I postulate a rich manifold of deeply different cultures. Looking back some thousand years, and imagining some distant futures, I reach a conclusion that seems to me rather certain: on the average, no very great population is required in each culture. On the contrary, huge numbers tend to reduce the manifold.

The goals of each individual are to a high degree dependent on the community, the larger social setting, the nation or people. If, however, we try to go from subordinate to ultimate goals, we may tentatively simplify our reflections by subsuming individual ultimate goals under three headings: pleasure, happiness, and perfection.² By the term *pleasure* I refer to what in the history of philosophy has often been called hedonism. Momentary, intense, positive feelings, especially sensual, are by the hedonist seen to be the only ultimate good and value. By the still more ambiguous term *happiness* I refer to eudaimonism, which differs essentially from hedonism in taking time seriously—a happy *life*—and recognizing that happiness requires deep and complex positive feelings not reducible to sense experience. By *perfection* I think of ultimate goals defined independently of pleasure or happiness, for example, “authenticity,” “doing one’s duty in life,” “letting God lead,” “self-realization.” Usually, those proclaiming a kind of perfection (in my terminology) as an ultimate goal assume that attaining or seriously seeking the goal has a satisfactory degree of happiness as a consequence.³ Others admit that no happiness is assured, or that they expect unhappiness from seeking perfection.

The importance of focusing on ultimate goals stems in part from *decrease of ecological destructiveness with decreasing distance from the ultimate*. An example may be useful.

In Benito Mussolini’s years as *Il Duce*, most—perhaps more than 90 percent—of his proclamations about war suggested that he considered warfare an ultimate goal for mankind. Sometimes, though, he clearly classed wars started by Italy as instrumental: the best means to improve the Italian “race.” He had contempt for what he considered the sloppy, pleasure-loving, and unwarlike qualities of Italians. As long as he lived, he said, he

would see to it that Italy was always involved in at least one war. The ultimate goal, therefore, seemed to be a kind of perfection—to realize certain qualities of character—rather than an endless series of wars. Since he did not shun man's pleasure of "conquering" women, the ultimate goal seemed for him to be a sort of masculine character, including nonsloppy "masculine" pleasures. There are many ecologically innocent ways of realizing masculinity short of war! Mussolini's destructive choice is not a necessary one.

Why not be content with one's own masculinity? Why spend time perfecting the masculinity of millions of others? Here, of course, we discern motives of ambition centering on coercive power. The many ways of satisfying ambition reveal perfection goals of various kinds. What this whole example is meant to illustrate is that there are scarcely any ultimate goals that *inevitably* require ecologically destructive outlets.

Our first conclusion must be that the ultimate goals of humankind do not presuppose very large numbers of human beings on Earth. A population significantly below the present-day 5,000 million would be viable.

The next question must be, Given the geographical and other limitations of the Earth, will maximization of the prospect of realizing the ultimate goals be hindered rather than favored by a total population as large as 5,000 million?

For those who accept Self-realization as one, or the, ultimate goal, and accept the tendency to identify with all life as an inevitable consequence of maturity, the answer is clear: it is vastly more difficult to reach the goal with a population of 5,000 million than with a substantially smaller population—other conditions being held constant.

In line with the very limited aim of this paper, I shall now jump to a couple of conclusions, the first of which presents a softening of (3):

- (4) The optimum conditions for the realization of the ultimate goals of humankind require a population that is substantially smaller than at present.
- (5) There are no ultimate goals of humankind the realization of which requires a reduction of the richness and diversity of life on Earth.

Given today's large population and given that a great part of it for natural reasons is eager to reach a much higher standard of life, pollution and re-

source depletion will inevitably assume grave proportions. It is tempting to object, With soft and intermediate technology, with stabilization of energy consumption, with the realization of the major goals of green politics, ecological sustainability is assured even with 5,000 million human beings! We may agree, but we must repeat that it is irresponsible to neglect the population question in the *mere hope* that a radical green movement will be victorious.

Considering the immense pollution per capita in the rich industrialized countries, population reduction in those countries has at least as high a priority as in the poor countries. Our lopsided share of the reduction of life conditions on the planet should make us careful of trying to press the poor countries toward greater ecological responsibility. Furthermore, the large increase in the material standard of living in the last half-century in the rich countries may not have increased the level of attainment of the ultimate goals in life.

In Europe only about 8×5 square kilometers (near the Polish-Russian border) are left of the old forest that covered Europe after the last ice age. As a philosopher I may be permitted to say that we Europeans have made surprisingly little use of our brains to attend to our ultimate goals in life. That might have saved a lot of nature and added to our quality of life. Paying more attention to the ultimate is facilitated through thinking in terms of a total view rather than in fragments.

The Period of Transition in Rich Countries: Economic Consequences

A period of transition from higher to lower population will have a different character in different countries, and a different character in different parts of individual countries or regions.⁴ Let me leave out the smaller units—parts of a small country—and concentrate on rich countries.

In rich countries with “mixed” economies, neither markedly “socialist” nor markedly “capitalist,” slight decreases of fertility have already been experienced and have elicited public discussion. The main reaction has been *alarm*, probably mostly of a rather instinctive character (“Are we dying out?”). Few conferences, if any, have been organized with the aim of discussing theories about various consequences of a slow decrease.

With regard to economic consequences, the main concern has been the increasing percentage of old, “unproductive” people. These have to be given food and shelter; they “cost” a lot. If their numbers increase by 10 percent, productive people have to work more and produce more. Against this, economists (and here I think of people doing economic research without being hired by a public institution or a private firm) point out that children “cost” as much or more. So if 10 percent fewer children are born, the percentage of productive people is affected at least as heavily the other way. They might have to work less and produce less in the transition period. (By “work” is here meant salaried work. Much work of eminent social value is done today without salary, whereas much destructive production is paid for.)

Of great political importance is the difference between public and private budgets. With the disappearance of the extended family as an economic unit, old people are paid for largely out of public budgets. Children are paid for mostly out of private budgets. (In this discussion, I have in mind a mixed economy, like that of Scandinavia.) Some of the alarm about a slow decrease is therefore alarm about higher taxes. On the other hand, the more than ten years’ schooling, now paid for mainly by the public budget, will during the transition period cost less. Further, as it is now, people in economic charge of children pay lower taxes. A decrease of their number would increase public income. It is, therefore, an open question whether taxes would need to be increased or could be lowered.

Here is not the place to go into details. Suffice it to point out that the economics of slow population decrease is a fascinating theme for professional economists and population experts. Politicians have so far mainly asked for professional advice on how to *avoid* a decrease, not on how to think about its consequences, both good or bad, in relation to a value system. The advice of economists has largely ignored the economically important impact of population upon ecosystems—the forests, to mention an example. Traditionally, there has been little cooperation between the social and the natural sciences. It is difficult to find up-to-date literature.⁵ What seems clear is that it is extremely difficult to predict the economic consequences of a slow decline, and that a great number of factors must be taken into consideration.

If your personal motivation for preaching long-range human popula-

tion reduction is primarily concern for rapidly diminishing nonhuman life-forms, for continued evolution, and for the survival of the planet, is it not dishonest to concentrate on population reduction for the sake of human beings themselves?

It is not dishonest even if 90 percent of your argumentation is for the sake of human beings, provided you honestly believe what you say. Using argumentation in favor of a great long-range goal, we select (from among the many we believe in) those arguments that carry the most weight; such arguments must be used for what they are worth. Arguments in favor of human beings carry immeasurably more weight than those in favor of anything else.

Self-Realization in Mixed Communities of Human Beings, Bears, Sheep, and Wolves

This paper assumes as a general abstract norm that the specific potentialities of living beings should be fulfilled. No being has a priority in principle in the realization of its possibilities, but norms of increasing diversity or richness of potentialities put limits on the development of destructive lifestyles. Application is made to the mixed Norwegian communities of certain mammals and human beings. A kind of *modus vivendi* is established that is firmly based on cultural tradition. It is fairly unimportant whether the term *rights (of animals)* is or is not used in the fight for human peaceful coexistence with a rich fauna.

In recent years academic philosophers have paid increasing attention to the relations between human beings and other living creatures. One of the reasons for this is a tragic paradox. In the industrialized states the average material standard of living (measured conventionally) has reached a fabulously high level, the highest in the history of humankind. At the same time the number of animals, especially mammals, subjected to suffering and a severely restricted lifestyle in the richest countries has increased exponentially. Never have so many highly sensitive beings been cruelly treated for such flimsy reasons. The fact that the main effort against this trend has been organized by professionals engaged in lessening the economic crisis in Scandinavia has rendered it even more difficult than usual to make an impact on the political level. It is to be expected that cruel practices supported through economic considerations will flourish in spite of mounting public concern.

This article was reprinted with permission from *Inquiry: An Interdisciplinary Journal of Philosophy* (New York and London: Routledge, Taylor & Francis Group) 22 (1979): 231–41.

The way animals are treated is determined not only economically and politically, but also through sets of general attitudes and beliefs, some of which are philosophically relevant. Academic philosophers have here a great variety of problems from which to choose. "Do animals have rights?" is one that has been at the forefront.

In what follows I shall outline the skeleton of a pattern of argument, *T*, which concludes with a version of the maxim "Every living being should have an equal right to live and flourish." If we wish to avoid too expensive an egalitarianism, "equal right" might be replaced by "equal right in principle." The argument starts with "Potential ought to be maximally realized" or a similar sentence. Relying on various uses and connotations of "self," we can also employ an expression such as "Maximal self-realization!" These formulations are (of course imperfectly) expressive of the single normative premise needed in *T*.

The potentialities of human beings in the form of achievements and lifestyles, and in other ways, are more complex and therefore greater than those of any other living beings on earth, at least at the present time. The maximal realization of these potentialities depends, however, on a vast number of conditions. Ecology (and especially human ecology) teaches us daily more about certain kinds of decencies. The manifestations of the capacity of sympathy and symbiosis teach us that there is a vast variety of ways of living together without destroying others' potentials of realization.

Maximal realization of potentials implies the utilization of the existing *diversity* of life-forms and capacities. Among the factors reducing diversity are the relations of "exclusivity," the dependence of the maximal realization of the potentials of one life-form on the nonmaximal realization of potentials of some other forms. Clearly, a policy of restraining certain forms and lifestyles in favor of others is called for—in favor of those with high levels of symbiosis, or more generally, good potentialities of coexistence.

This seems to suggest a very active interference in nature: defending the hunted against the hunters, the oppressed against the oppressors. Here, though, ecology has taught us a very brutal lesson: our vast ignorance of the interdependence of life-forms and the often tragic consequences, for the hunted and the oppressed, of the elimination of the hunters and the oppressors. Interference has to be carried out with the utmost care.

There are various concepts of diversity in the ecological literature.

Here I shall rely on a fairly narrow concept such that one may assert, “Maximal realization of potentials implies maximal diversity.”

Complexity, in the qualitative sense of many-sidedness of lifestyle and of manifestations of life in general, may be safely said to increase from protozoans to vertebrates. Increase of complexity makes increase of diversity possible. Maximal realization of potentials thus implies maximal development of levels of complexity and maximal diversity at each level.

In the argumentation pattern *T*, “Maximal complexity!” is derived either directly from the basic norm or indirectly through asserting “Maximization of diversity implies maximization of complexity.”

Among the classes of jointed-legged animals (*arthropoda*), insects may safely be said to show the most pronounced diversity. Scolopendrids are on roughly the same level of complexity, but do not show comparable diversity.

The development of the nervous system is generally taken as proof of development of a capacity of joy and suffering, from vague feelings of lust or pain to extremely *complex* sentiments of positive, negative, or mixed kinds.

The relation of joy and suffering to self-realization is differently conceived with different philosophies. Our argument pattern makes use of Spinoza’s theories, asserting an inner relation between joy (*laetitia*) and increase of power of realization (*potentia*). Joy is not felt *because of* the realization of a potential but is part of the very process of its realization. Spinozist theories are important when linking utilitarianism to self-realization conceptions of ethics.¹

In spite of what has been said about the elimination of hunters and oppressors, we may safely assert as general maxims that “Exploitation reduces realization potentials” and “Subjection reduces realization potentials,” and derive “No exploitation!” and “No subjection!” Strict application of such slogans is, of course, utopian in the worst senses of the term. The formulation of the slogans may be said both to point to possibilities of argumentation and to suggest impasses and absurdities.

Diversity implies self-determination in one important way: the more each particular being acts out of its own particular *conatus*—to use Spinoza’s term—the greater is potential diversity. On the other hand, self-determination at high levels of complexity implies complex societies with complex relations. (I presuppose that the ecological difference between

complexity and complication is taken into account. Complicated social relations reduce many-sidedness.)

To the maxims already introduced we now tentatively add "Maximum self-determination!"

The way in which I have talked about life-forms and lifestyles suggests that it is species and other collective units, not particular living beings, that realize potentialities. I do not rule out the possibility of self-realization of collectivities but prefer to think only of particular beings, particular human beings, frogs, hookworms.

Many ecologists lament the preoccupation of ethics with particular specimens instead of populations. They demand a greater ethical concern for populations, for animal and human societies, and less preoccupation with the fate of individuals. Some add that the highest concern should be for ecosystems, not individuals, societies, or species. What is most needed is system ethics, especially strict ethical norms concerning the destruction of ecosystems. I presuppose in what follows that the arguments of these ecologists are taken seriously, but I nevertheless persist in thinking of the realization of the potentials of *particular* living beings.

So much for argument pattern *T*. Many contemporary authors reason along similar lines, as, for example, the author of "The right not to be eaten," in evaluating diversity, symbiosis, and other factors. One of his conclusions is that

The natural *telos* is a diversified environment in which organic beings are capable of symbiosis as well as spontaneity (localized autonomy) and . . . any practice which inhibits the development of this type of environment ought to be discontinued. Since meat-eating is a conspicuous example of a human practice which has this effect, it should be discontinued, and a right not to be eaten should be *ascribed* to animals.

(Auxter 1979: 227)

Auxter's ought-sentence may be derived from the basic norm of argument pattern *T*. The general ascription today—for example, by a resolution of the United Nations Assembly—of a right not to be eaten would, I think, elicit considerable mirth and some ire. Our author surely did not, however, have such a possibility in mind. More informal declarations of animal rights might well contain the ascription.

The assertion that “It is wasteful to sacrifice a more highly organized being when a lesser being will do” might be taken as a guideline indirectly derivable from the slogan “Maximize complexity!” Completely to destroy a highly organized being’s possibilities of realization is to eliminate more possibilities than when a less organized, and therefore on the whole less complex, being is sacrificed.

If the highly organized specimen is old and sick, people would tend to sacrifice it rather than the young, healthy, but somewhat less complex specimen. At this point I hope that most readers will feel a certain disgust at suddenly seeing the implication of a rigid application of such “measurements” of possibilities within the framework of human societies. Social Darwinism is just around the corner!

The relations of the “potentialities of realization” guideline to Donald VanDeVeer’s criterion of “two factor egalitarianism” are rather complicated.² Let us, for example, take the relation of bears to sheep and to human beings. The eating of sheep flesh is not taken to be of a high “level or importance of interest” to bears in general. To some bears, however, it clearly is. Unfortunately, we are not able to help a bear give up that interest. Sheep owners, on the other hand, have a strong economic *interest* in keeping their sheep alive. Even if the compensation they receive for the loss of a sheep is enough to buy two new sheep, and they thus make a profit out of the killing, sheep owners have an *interest* in avoiding the killing. This has to do with local sheep owners’ personal relations to their sheep, their rejection of cruelty, and many other factors. They also attribute intrinsic value to bears, and thus, letting bears live is an *interest* in favor of maintaining intrinsic values. So much for adapting the terminology of “interest” to my own analysis. The transition to “potentialities of realization” terminology is not very problematic. Damage to interests corresponds to reduction of potentialities. Thus, severe threats to economic interests correspond to possibilities of severely reduced self-realization.

It belongs to the special capacities of human beings to recognize similarities and differences between themselves and other life-forms. Some differences elicit feelings of strangeness, fear, or dislike and favor attitudes of hostility, avoidance, or indifference. Similarities, like sensitiveness to pain or to behavior as if in pain, elicit sympathy and attitudes of identification. Relying on accounts of human nature like that of Spinoza, especially his

account of free human beings in the later parts of part IV of the *Ethics*, I favor high levels of realization of human potentialities in terms of both intrinsic values and equal right (in principle) to live and flourish. Upon this general attitude, however, is superimposed a vast differentiation according to which form of life or which lifestyle is under consideration or—better—met with in action.

Remaining at the rather abstract level, I assert as part of argument pattern *T*: “the higher the level of realization of the potentials of a living being, the greater the dependence of further increase in level upon the increase of the level of other living beings.” What this says, in its extreme form, is that the absolutely highest level of self-realization cannot be reached by anyone without all others also reaching that level. (It is a kind of parallel to *mahāyāna* theories of highest levels of freedom.)

The view that human nature is such as ultimately to demand a sort of egalitarianism of life-forms in the biosphere may, of course, be judged simply wrong without disturbing the other arguments of the argument pattern. The view is mentioned here simply because, if tenable, it lends support to the ultimate normative premise stated at the beginning of this article.

How, if the above is accepted, are we to implement or give expression to the norms stated? How are our policies toward animals to be stated and carried out in particular cases?

There are many ways of approaching these vast problems. I shall confine myself to mentioning, in order to illustrate one approach, the procedures of wild-animal “management” in Scandinavia, particularly in Norway, and I shall limit myself to considering two not very important species, the brown bear and the wolf.³

Bears and human beings live in overlapping territories in southern Norway. Conflicts arise because some bears develop a habit of killing sheep. No sheep owner thinks that all bears in his area should be killed. The cultural pattern is such that bears are considered to have a right to live and flourish. They are considered to have a value in themselves. The problem is one of coexistence with human beings and with sheep.

When sheep are killed in southern Norway and a bear seems to have been responsible, an expert is called in. He investigates closely how the

sheep have been killed and notes all signs of the presence of the bear. Knowing the various habits of practically all the bears of the area—even if he has not actually seen them—he is generally able to tell not only whether a bear has been there, but also which bear.

The sheep owner is paid an indemnity if the expert decides that a bear is responsible. If that bear has been guilty of similar “crimes,” a verdict may be reached that it has forfeited its right to existence. An expert bear hunter is given license to kill it, but if he does not succeed, a whole team of hunters is mobilized. (Somewhat inexplicably, bears are able under such circumstances to hide for years, which is deeply embarrassing as well as mystifying for the hunters.)

Many factors are considered before a bear is condemned to death. What is his or her total record of misdeeds? How many sheep have been killed? Does he or she mainly kill to eat, or does he or she maim or hurt sheep without eating? Is particular cruelty shown? Is it a bear mother who will probably influence her cubs in a bad way? Did the sheep enter the heart of a bear area or did the bear stray far into established sheep territory?

Even if the terminology of the argumentation for or against the death warrant differs from that of human trials, the social and ethical norms invoked are similar. One may speak of the area’s life community, a community comprising wild animals, domesticated animals, and human beings.

The use of the term *community* in this way does not satisfy the strong requirement proposed by Passmore (1975), but it satisfies that of Clark (1979: 183–84). I myself accept broader senses of the term as perfectly legitimate.

The interaction among the members of the community is not systematically codified. How to do that, and in what terminology, is an interesting philosophical problem.

Sheep owners and others are interested in clarifying the norms because of an increasing friction between bears and human beings. For economic reasons sheep are no longer tended; the norm that sheep be protected against wild animals by the presence of a shepherd is invalidated through higher norms of profitability. The economy is capital-intensive, not labor-intensive.

As a result of the norm to make Norway more “self-reliant,” there is also now a government-supported norm to increase the number of sheep and the area of their grazing. Very old, established bear territories are being

invaded. Added to this is the further complication that the number of bears is increasing.

If our current economic crisis does not worsen, a *modus vivendi* comparatively favorable to bears may ensue. If the crisis deepens, however, the bear territories will probably be “developed.” It will be found “necessary” to introduce more sheep. Bears will meet sheep more often—with bad consequences for both.

Ecologists who assess the destruction caused by bears, and who give advice to both sheep owners and representatives of the public, try to fulfill the wishes of sheep owners fully enough to ensure that the latter do not begin breaking the law by killing bears without a warrant. As professional students of bears and of impressive, old ecosystems, the ecologists think it would be wise for the public to give greater support to the interests of the bears than at present. The realization of such a policy presupposes that the public become better informed and that the economic crisis does not deepen.

Comparing Regan’s approach (1979: 189–219) to my own, I see mine as more *a posteriori* and less elitist. The ascription of rights to animals frequently occurs among “ordinary” people, that is, people without special formal education. It is their use of the term *rights*, rather than that of people versed in law or philosophy, that guides my own. Philosophers might find inconsistencies and obscurities in ordinary ways of using *rights* and similar terms, but I think that this is mostly because they do not acknowledge the intricacies of everyday usages.

A widely read Norwegian book on the rights of animals (*Dyrenes rettigheter*, 1974) and a pamphlet called *Universal Declaration of Animal Rights* (1978) elicited counterarguments, not complaints, that the key terms (*rett*, *rettighet*) were meaningless when applied to animals. Thousands subscribed to the declaration contained in the pamphlet. Others found its sweeping character utopian in the sense of completely unrealistic. Empirical, semantic analysis would, I think, make it plausible that *rett* as used in the texts and debates had fairly definite connotations. On the basis of such empirical work, I think philosophers may tentatively introduce conceptual frameworks incorporating the concept of animal rights.

It may be wiser, however, not to introduce the term *right* in codifications of norms covering animal-human interaction, or only to assert condi-

tionals: “if we recognize that there are rights (at all), then . . .” (cf. Regan 1979: 189–219).

We will mention wolves only briefly. Their cultural setting is very different from that of bears. There is a great respect for bears, whereas wolves are more dreaded than respected. A bear’s character traits are considered more sympathetic. Some people consider wolves dangerous: hungry wolves may attack human beings. (Most or all stories of such attacks in the last hundred years, however, have been found false or extremely doubtful.)

The very *right to live* is brought into the debate. In recent years, however, wolves have not been guilty of a single verified misdeed. They are rarely seen and very careful to keep out of trouble. There is, therefore, a reasonable chance that the life communities comprising a (fairly small) number of wolves will persist.

In referring to animals here, I have used the terms *responsible*, *guilty*, *misdeed*, *crime*, *cruelty*, and *careful*. They belong, together with the term *right*, to the vast number of words with connotations mostly found in debates on purely human behavior but also found in fairly precise argumentation involving the attitudes and behaviors of other species. It is sometimes important to be strict in keeping the two uses apart, but never wise to try to eradicate the wider ones.

People speak of the right of certain animals to hunt within certain territories, to drink at certain places along rivers, and to use certain trails. Thus, if the human use of such trails or the cutting of a road prevents the animal from using them, those actions are forbidden. There is also talk about the right to light and to movement, to free air, and so on, in mechanized agricultural societies. Instead of rejecting the possibility of there being such rights, I would recommend arguing for the same goals without using the terminology of rights.

McCloskey argues very carefully that animals cannot have rights if they do not have the relevant *moral* capacities:

Although there is limited evidence in respect of certain animals of a capacity for seeming “self-sacrificing,” “disinterested,” “benevolent” actions in limited, somewhat arbitrary areas, there is no real evidence of a capacity to make moral judgments, morally to discriminate when self-sacrifice, gratitude, loyalty, benevolence is morally appropriate, and more relevantly, to assess their

moral rights and to exercise them within their moral limits. However, further research on animals such as whales and dolphins, although seemingly not in respect of monkeys, apes, chimpanzees, may yet reveal that man is not the only animal capable of being a bearer of rights.

(McCloskey 1979: 42)

What seems to be lacking is a noncircular, convincing argument for the conclusion that animals must have certain moral capacities in order to have rights. In fact, I do not find any pro-arguments in McCloskey's paper. Here, as in the case of Regan, I would study occurrences of the term *right* among ordinary people and inspect with interest its possible connotations, some of which seem noncontradictory and useful within certain limits.

Favoring a Spinozist ethics without a separate realm of morals, I would adhere to views expressed by ordinary people who ascribe rights to bears without attributing moral capacities to them.

I do not see any inconsistency in maintaining both the general maxim of species egalitarianism in principle ("the equal right in principle of all species to live and flourish") and the norms that make it more difficult for a wolf than for a bear to be accepted as a member of a mixed community. The general maxim is a vague abstract guideline that has to be embedded in a philosophy of culture. This philosophy is again to be embedded in a social (including economic) framework connecting philosophy with daily life.

The codification of interrelationships between large, wild mammals and human beings is an interdisciplinary task calling for intimate cooperation among people from many walks of life. The same holds for other areas of present-day conflict between animals and human beings. Sprigge (1979: 134) stresses that "the details of an acceptable code" of a certain kind "cannot be worked out solely on the basis of philosophical first principles" and requires the "combination of appropriate expertise with a developed moral sense." I, too, would like to underline the importance of layman participation.

It is a good sign for those of us who represent academic philosophy that people seek an opportunity to talk over the problems from a wide perspective, including the religious and the philosophical.

The Encouraging Richness and Diversity of Ultimate Premises in Environmental Philosophy

Those who join efforts to support basic changes of human attitudes and policies in our relations to nature have different philosophies and religious creeds. The richness and diversity of ultimate positions within these creeds is a source for future deep cultural diversity. It is one of the central tasks of environmental philosophers to study different positions, but not to try to reduce the ultimate differences.

This article is motivated by my opposition to looking for a single environmental philosophy or one environmental ethics. There are some agreements we should note with satisfaction, others that we should note with concern: has undue conformity, calcification, lack of imagination, closed-mindedness, or lack of a critical attitude set in? It happens in science, but Thomas Kuhn and others have made people aware of it there.

Supporters of the deep ecology movement in the so-called Second, Third, and Fourth worlds have in part widely differing cultural backgrounds from those of the First World. It is quite natural that the different religious, metaphysical, and philosophical trends color the ultimate premises in systematizations from which the ultimate parts of an environmental ethics are derived. Should all groups within the fairly homogeneous First World have a set of ultimate premises in common? Recently, some Christian groups have made use of the normative statement that all that is directly created by God has intrinsic value. There are other groups who cannot make use of such an ultimate or penultimate norm. I find it encour-

This article was reprinted with permission from *The Trumpeter: Journal of Ecosophy* 9 (Spring 1992): 53–60.

aging that considerable differences exist, and I hope this situation will continue. Even Max Oelschlaeger, after a careful account of different ideas of wilderness, ends his book by expressing the need for a single “postmodern” paradigm (Oelschlaeger 1991: 350ff.). I have the feeling that he has the whole world in mind, that is, a paradigm that the human inhabitants on this planet have in common.

The influence of the deep ecology movement—*roughly* the movement by people who act in favor of a change “in everything” in order to overcome the ecological crisis—is dependent on activism in the sense of decisions and actions in particular (dated) situations, indirectly motivated by religious or philosophical fundamental premises. The influence does not depend on all supporters agreeing on the ultimate premises. It is not even dependent on mutual understanding at this level. I do not clearly understand Gary Snyder’s ultimates, and I probably never will.

In most cases of joint action or effort, it is irrelevant which premises are used as ultimates as long as they are considered to imply the principles of the movement (“level 2”) and, together with other premises, the concrete decisions.

Let us consider the Leopold formula as an example: “A thing is right where it tends to preserve the integrity, stability, and beauty of the biotic community.” Some might use this sentence as a formulation of a fundamental normative premise; that is, they would try to derive other norms from it, and not try to derive it from other norms. Others might take it only as a convenient point of departure and spell out a set of sentences that they think are more precise but that may still be considered plausible interpretations of the Leopold sentence. Then they would specify one or more of the “precizations” indicating agreement, with one or more reporting disagreement. What is of greater interest is that some supporters of the deep ecology movement would strongly disagree, or would find the Leopold formula difficult or impossible to understand clearly. Personally, I belong to the latter category of supporters, but I do not feel motivated to argue, because the so-called “fascist” implications obviously can be avoided by suitable interpretations. The Eight Points that G. Sessions and I have tentatively proposed as formulations of a set of principles of the deep ecology movement can then be derived (Devall and Sessions 1985: 70). *What is more pressing than debating ultimate norms is to work out consequences for priorities of certain kinds of action.*

As an example, let us consider the problems facing the introduction of

wolves in areas in which they were common x years ago, x being specified on the basis of a set of criteria for desirable restoration of ecosystems.

The protracted, emotionally intense debate on wolves in Norway covers thousands of pages in articles and books. Every area of economic, social, political, and ethical policies is involved. The debate shows how environmental ethical views make up only a part of a total and can only be understood internally when related to a *total view*.

There is not in this connection room for a careful introduction of a concept of a total view. I distinguish a total view from (always partial) verbal articulations of a total view. One of the several ways to articulate parts of total view is to focus on the premise-conclusion relations. This is what ecologist Ivar Mysterud and I do. Of the relatively deep norms implied are some concerning suffering. We take the suffering of sheep more seriously than do most of those who write strongly in favor of introducing wolves. We also take more seriously the rights of small sheep owners in big forests to continue living "where they belong" on a traditional level that is ecologically on a higher level than that of their urban critics. I suggest that the study of fundamental ethical norms that we attempt to use in the ecological crisis should be "operationalized" to a higher degree than is habitual among professional philosophers. The point is well argued by Bryan G. Norton (1991: 186). It would be interesting to see an application of the Leopold formula to the problems facing the introduction of wolves in a certain area. I make extensive use of the norm 'Self-realization!' but it is more a sketch of how one must proceed than a set of careful, step-by-step derivations, which would involve hundreds of descriptive and normative sentences (Naess 1986e; chapter 45 of this volume).

Even the style of the above deliberation reveals that I belong to a somewhat different tradition of meta-ethical discussion and methodology than the chief participants in the ethical monism/pluralism debate. It may be of interest to continue by extending the perspective, leaving the narrow concern for task-minded theorizing within the deep ecology movement.

Can deeply different total views be compared as to the validity of norms and descriptions? The answer affects comparability of environmental philosophies.

Suppose that a philosophical genius manages to articulate a consistent set of answers to a list of basic questions of formal logic, general methodology,

epistemology, ontology, ethics, . . . (the list is supposed to include all areas of inquiry comprising questions that are posed as ultimates).

The above formulations include the terms *basic* and *ultimate*, which of course admit of various interpretations. The same holds for the term *consistent* in the expression “consistent set of answers to a set of basic questions” because of the varieties of systematizations of formal logic, including deontic logic. Let us, however, try to set aside for a moment the complication resulting from the lack of preciseness of the above-mentioned terms.

Suppose now that the superphilosopher succeeds in using a philosophy of life and lifestyle to derive decisions about how to act in concrete situations. For this purpose he (of course) needs hypotheses about the particularities of each situation. I shall then say that our superphilosopher applies a total view verbally articulated in a total system. It is not required that the systematizer keep the same view all the time. His methodology may furnish room for changes through renewed reflections and deliberation. His total view is not static, but dynamic.

The analogy to a vast hypothetico-deductive system in natural science is limited, but instructive. The derivations as to how to act start with abstract, general sentences, some descriptive and others normative—for example, in the form of grammatical imperatives. The system itself is “normative.” That is, it contains at least one ultimate norm, but is more likely to contain many. Observational tests in natural science rest on sentences describing the experimental setup and other particular features of the test situation and procedures. In applying the normative system, the experimenter derives a concrete decision describing an action (or inaction). It is a normative sentence derived from the set of ultimate premises, plus a description of the concrete situation at hand.

If the system is to an important degree inspired by ecology in a certain fairly wide sense of the term, the superphilosopher must be supposed to have (miraculously) succeeded at a given date in developing a *full* articulation of what I call an *ecosophy*, and achieved full consistency between theory and practice. He practices what he teaches. The limitation implied in “at a given date” reminds us that the incessant stream of events poses an incessant stream of new questions. They may imply corrections to one or more hypotheses within the system—hypotheses only tentatively assumed to be tenable. This threat-

ens norms that have the hypotheses as part of their sets of premises of daily decisions. Changes of hypotheses normally result in changes of norms.

Suppose now the ecological superphilosopher derives norms telling him that he should convince his colleagues. He may find their writings fully understandable but false, or at least not entirely true. The conclusion “false” he derives from the articulation of *his own* total view.

The superphilosopher is justified in formulating a critical conclusion based on his own premises. How could he do otherwise? Let us assume, though, he is willing openly to acknowledge that he interprets the texts of the others using his own rules of interpretation, that is, his own system of hermeneutics. A second superphilosopher may legitimately do the same, arriving at the same kind of, but opposite, conclusion to the first. The two seem to disagree, but do they really? It is not established that they disagree about the correct answer to any *definite* question, because, among other obstacles, differences in the hermeneutics of the two many cause differences in interpretations of any formulation of the question.

Furthermore, I cannot conceive of a third superphilosopher who could, on neutral ground, decide that a theorem asserted by the first and denied by the second, was right, valid, or true. To do this he would have to do it on a basis not dependent upon the contested ultimate or other premises of the two rivals. Even the meaningfulness of a comparison as to validity is problematic.

Peaceful coexistence of deeply different cultures seems to thrive on communicational imperfection, or sheer practical incomparability joined with some mutual tolerance and norms of nonviolence—or, more simply, by the cultures being scattered through practically impenetrable space, as they were some thousand years ago on this planet. We need not assume theoretical incomparability or impenetrability.

Historians of philosophy have produced texts that trace the long, complex development of mutually incompatible interpretations of the writings of Immanuel Kant and others. One thing that emerges is that there is rarely, if ever, a development suggesting future agreement or even future mutual deep understanding. This holds even when there is an increase in the number of interpretations that seem to be definitively rejected by everybody.

What is especially important is the tendency of seemingly extraordi-

narily competent researchers of successive generations to disagree. Therefore, we cannot explain away all the discrepancies by insinuations of incompetence. The history of ideas furnishes some help in explaining long-range trends, but there is no indication that general trends will stabilize. The same applies to reconstructions of old philosophies: Kantian, Spinozist, Buddhist, and so forth.

The question may be put, Do continued disagreements point to a basic weakness of the program of systematic articulation of total views? Are the disagreements or signs of lack of complete comparability a weakness? Especially since the time of Auguste Comte, it has been common among scientists to answer yes, but scientists trying to go beyond the more or less arbitrary limitation of the deepness of their questions posed by the particular sciences, have been less sure. Their answers to foundation problems, or their rejection of the meaningless of posing foundation problems, have elicited a spectrum of diverse, often clearly mutually incompatible answers.

Even if there were ways to show that reality is “one”—in the sense of “one” that can be clearly conceived—it does not follow that adequate, verbal accounts of this oneness should or must converge, or be practicably translatable into each other. On the contrary, that may be a sign of stagnation, as it is in physics when basic theories are translatable into each other. It is difficult for me to believe that future cultural richness and diversity can continue under conditions of increasing similarity of ultimate views. *This applies to ultimate ethical and meta-ethical views.*

There are less abstract reasons for welcoming some disagreements, incompatibilities, and incomparabilities, reasons suggested by the development of cultural anthropology. It tells us about the genesis of a philosophy and a total view: the social matrix, the influence of personal experiences, including the reading of other philosophers. Further, it teaches us of unresolved, persistent mutual “misinterpretations,” unsuccessful polemics, and other phenomena manifesting the precarious character of the vast, unfinished, and perhaps unfinishable hermeneutic enterprise.

Let me change perspective from the systematic to the historical. Starting about 1870 a variety of deeply different interpretations of Kant’s texts saw the light. An astonishing series of brilliant neo-Kantian philosophies appeared. I do not see any likelihood, nor any desirability, of a narrowing

down of the range of interpretations and reconstructions of Kant's philosophy. They may all have a fairly short life of strong impact, but the range may not narrow down because of the many abandoned enterprises.

I appreciate philosophers strongly inspired by Kant who spontaneously answer all major "refutations" or "doubts" with fresh and interesting counterattacks. Or consider the reaction of a young Heideggerian when confronted with one of the most atrocious sentences of the Heidegger idiom: he laughed heartily and offered a still more atrocious one, adding that "Heidegger does not admire his own style, he regrets that he does not find any better." So we are invited to find out what he means and to do a better job of expressing it. Or consider the variety within the phenomenological trend started by Edmund Husserl. The trend, I hope, will continue. My own "gestalt ontology" belongs here (Naess 1985c; chapter 40 of this volume). The task has no end.

The long history of interpretations of Spinoza now covers more than 300 years and shows as wide a divergence as the Kantian. Famous and inspiring are the interpretations by Johann Wolfgang von Goethe and other "Romantics." Hegel's interpretation is very much alive among the Spinoza interpretations within the Hegel-Marx-Frankfurt School tradition. I see no prospect of, nor desirability of, a narrowing down of *divergence* of Spinoza interpretations, and I expect new variations to appear along future paths of human ethical exploration. The greatness of a philosophical text consists largely in its capacity to elicit and lead the creativity of generation after generation. Biographical research shows that Spinoza was heavily inspired by medieval Jewish and Arabian philosophies. It suggests a perception and apperception of animals largely, but not completely, in tune with his contemporaries. What some people assert today, "The dog is man's best friend!" Spinoza might have found in principle impossible. Even in biographical interpretations, however, differences are considerable, perhaps greater than at the time of Goethe.

Philosophers may look for the best interpretation of a text, but in metaphilosophical hermeneutics, as in the history of ideas, variety is considered a cultural asset.

A trend toward a uniform, not to say monolithic, way of conceiving reality may be an ominous sign of stagnation of the total human enterprise on this planet, a sign of cultural conformity. Environmentalism and the

DEEP ECOLOGY PRACTICES

quest for a greener society will not, I hope, contribute to conformity, but it might! That is the reason I take these abstract themes seriously and hope that many others will do the same.

The discussion about a green society's ultimate premises and norms, its political and social philosophy, and about the conceptual basis of sustainable development and economic growth, proceeds without proper attention to the desirability of deeply different green societies, including significantly different ways of realizing economic progress rather than growth. General economic anthropology, which studies contemporary industrial economies from the outside, is highly relevant.

The danger of conformity increases when attempts are made to merge three main social movements into one, into a gigantic quasi-green movement comprising the peace, social justice, and deep ecology movements. Until the late 1970s many deeply concerned peace workers did not quite trust the concerned environmentalists, but obviously the threats of war, the armaments, not to speak of wars themselves, have consequences that necessitate close cooperation between activists of the two movements. Until the late 1980s a similar lack of trust existed in some quarters between the deep ecology movement and the social justice movement. (Under the social justice title I arbitrarily class international humanitarian efforts and political movements of the Marcuse and Frankfurt School type, as well as antihegemonic political groups.) The overlap with the political efforts of green parties is obvious. The deep ecology movement has an inseparable ecopolitical aspect, assuming as it does that significant societal changes will be required in any long-range effort to overcome the ecological crisis. Some competition for recruitment is unavoidable between the two movements, but it should not be allowed to cause theoretical disputes.

Mutual support and global solidarity within the deep ecology movement are called for in the fight for significant change of policies, but it is counterproductive to try to narrow down the variety of religious and philosophical ultimate premises. The only reason to attack a religious or philosophical ultimate premise seems to be the assumption that a particular environmentally unacceptable position follows with necessity from it. I do

not find, however, that such necessity, or even likelihood, is established in contemporary ecological debates.

An instructive example of a comparison of very comprehensive systems, each with aspirations of totality, is offered by Susan Armstrong-Buck (1986: 241–59). Her introductory sentences admirably describe a problematic situation.

That the natural world has intrinsic value—value in and of itself, independent of human preferences—is intuitively and emotionally acknowledged by many people. I believe that this recognition is crucial to the maintenance of the beautiful, life-giving ecosystem which is our planet. Yet the growth of this apprehension into a widely shared ethos capable of guiding human activity has yet to happen. It requires, among other things, an adequate metaphysical theory, since a metaphysical theory can give penetration to and a wider and consistent application of our intuitive and feeling-based apprehension. . . . What would such a theory be like?

Her answer is that Alfred North Whitehead provides such a theory.

My point is, roughly, that “a widely shared ethos” is desirable, but not at a deeper level than that of such assertions as “The natural world has intrinsic value.” The questions are, of course, philosophically relevant: On what ultimate basis does one *conclude* that the natural world has intrinsic value? What are the ultimate rules of inference that permit one to arrive at such a conclusion? Disagreement at this level may be deep and may last indefinitely. One may talk of four levels of premise-conclusion relations: the rock bottom, an ultimate first level, a second level, and a third level. The principles of the deep ecology movement are contained as tentative formulations at the *second level*. Here, the attributions of intrinsic value, inherent worth, and so on, enter. At a *third level*, there are consequences of the second level (plus, of course, a lot of additional descriptive premises about the “state of the world”—a World Watch Institute expression). A fourth level is of extreme importance in total views: this is the level of decisions in concrete situations. When it is said that to find ultimate premises is the main problem of environmental philosophy, I think it makes such philosophy much too narrow and also destructively isolated from environmentally

valuable total views (“ecosophies”). A Zen Buddhist, after many years of intense study and practice, said that *basically* he personally would *not mind* if the whole planet were covered with asphalt. He supported ecologically responsible policies, respected nature, but considered human ultimate freedom to be completely independent of what happens to the planet. That is, to my mind, going too far!

I refer to “a richness and diversity of cultures” rather than to “the richness . . .” of cultures because the actual history of human cultures exemplifies horrors of war, cruelty, and injustice. I do not here even try to discuss the difficult question of where to draw the lines, and what to do when war threatens.

From the above point of view it is appropriate to answer Susan Armstrong-Buck: Yes. Whitehead, or better, a Whiteheadian approach among many possible approaches, offers *a kind of* theory you are looking for—and it does so in an outstanding way at a high level of contemporary Western philosophy. Potentially, however, there may be indefinitely many other approaches that also offer such a kind of theory. A Spinozist approach is only one of them. I am glad to say that Armstrong-Buck does not directly or explicitly contest such a pluralist view. The study of often-crude polemics of Stoics against Epicureans, Kant against Hume, Kierkegaard against Hegel, antimetaphysicians against metaphysicians, seems to me to substantiate the view that formidable philosophical insight requires only a moderate level of clear interpersonal cognitive discourse. A philosopher may offer new insights, but his refutation of others may be far off the mark.

Armstrong-Buck’s exposition of Whitehead’s metaphysics contributes to the understanding of a kind of metaphysical view that provides ultimate cognitive foundations of actions elicited by “our intuitive and feeling-based apprehension” (Armstrong-Buck 1986: 241). She compares this view with Spinoza.

Her description of Spinoza’s system is of interest insofar as it shows that within the manifold interpretations of Spinoza are some that make his text inadequate where Whitehead’s may be adequate. Those, however, who feel at home with some kind of Spinozist approach, will not find it reasonable to choose Armstrong-Buck’s interpretation of Spinoza’s texts.¹ The same holds for Genevieve Lloyd’s (1980) interpretation.² The situation is

not lamentable from the point of view of the ecological crisis because people with seemingly deeply different religious or metaphysical ultimate views may work together in practical efforts to improve the ethical standard of human environmental interaction. Different religious and metaphysical views need not weaken, and may significantly strengthen, the deep ecology movement. Conformity would limit the appeal to a small section of humanity.

I shall not defend my personal Spinozistic approach “against” a Whiteheadian one but take as a point of departure the following statement by Armstrong-Buck: “Spinoza has recently been presented by deep ecologists as a guide in our development of environmental ethics” (1980: 258).

What has happened is that Spinoza’s texts have functioned as a major source of inspiration for a tiny group of theorists within the deep ecology movement. I am glad to see that other classical Western philosophers—Hegel, Schelling, Bergson, Heidegger, Whitehead, Wittgenstein, among others—have also made an impact. Recently even Nietzsche, including a *rather original* interpretation of his theory of the Overman (*Übermensch*), has been found at least compatible. Most supporters of the deep ecology movement have never heard of any of the names mentioned here. I don’t think they ever need to.

According to Armstrong-Buck:

Spinoza’s metaphysics suffers from the fatal defect of deterministic monism: . . . all entities are understood as modes of this one substance and hence as causally determined. While Spinoza argues convincingly for the peace of mind obtained by means of determinism (since no one is ultimately responsible for what he or she does), his theory leaves no room for creative individuals. Indeed, the modes themselves are arbitrarily introduced into the system.

(Ibid., p. 259)

It is difficult for me to determine why Armstrong-Buck chose just this interpretation among a great richness of interpretations. I shall only mention some reflections to show why I do not favor the selection.

In medieval Latin, *causa* has many connotations of relevance for understanding Spinoza’s usages of the term. One has to consult dictionaries of medieval Latin. That *substantia*, conventionally translated as “substance” in English, causes the *modi* (“modes”) in the sense of “cause” famil-

iar to us today when we talk about determinism, is highly doubtful. The *modi* of *substantia* may not be caused by *substantia* in any such sense. Maybe, if *substantia* causes a human being to act in such a way, the effect does not come after the cause, that is, perhaps there is no time relation in such a case. Why not think of the relation as an internal relation rather than an external one? In any case, why interpret the relation in such a way that human beings must lack responsibility for their actions, or lack creativity? Spinoza says that human power is part of God's power, so why not add to this that human creativity may be part of *Deus*'s creativity as *natura naturans*? Why not interpret the term *homo liber* and the "road to greater freedom" (part V) as consistent with what we today would call the road to human freedom?

I use the Latin terms to remind us that the mutual relations of the connotations of the key Latin term in the *Ethics*³ are clarified through several hundred explicatory sentences. The originality of Spinoza's system is scarcely appreciated without a study of the "Spinozistic color" of the connotation of key terms, including *causa* and *determinata*. Such a study reveals, I think, that what Spinoza calls determination does not imply fatalism.

What I suggest is, in short, that if a contemporary environmental philosopher *A*, including myself, feels at home with a classical philosophy *P* and another philosopher, *B*, has another philosophy, *Q*, *A* will tend to adjust the interpretation of *P* in the direction of *A*'s environmentalism. As a side issue, *A*, perhaps a little too eagerly, points to interpretations of *Q* as inconsistent with environmentalism, whereas *B* will tend to do the opposite, defending *Q* and mildly attacking *P*. This can be done without violation of the hermeneutic rules of historical research. Considering the great problems and opportunities that confront philosophers in the ecological crisis, a side issue should remain a side issue. Like another side issue: to point out, if we feel we are competent, to supporters of the deep ecology movement who are inspired by Heidegger or by Whitehead something that may strengthen their own interpretation—in short, a kind of mutual aid in the sense of Krapotkin. The widening cooperation of supporters across national borders and cultural differences depends on open-mindedness, tolerance, even positive appreciation of religious and metaphysical differences. Few social movements can boast of such a vast area of agreement on

nonultimate levels—down to the hundreds of specific direct environmental actions going on at any one time. Philosophers are well equipped to help articulate clearly and convincingly the complex premise-conclusion relations between the ultimate and the practical levels.

Mechanical acceptance of the derivation of ethically relevant decisions on the basis of a set of norms and hypotheses, I agree, must be out of the question. Our ethical decisions are, in principle, always “at the depth of 60,000 fathoms” (Kierkegaard). At a point where we must make a choice, we may exclaim “No!” to any concrete decision derived from cherished beliefs, and make a decision of actually going squarely against “everything” we so far have considered established. When the application of a fairly general guideline elicits a stormy “No!” in a particular situation, there is mostly a need to inspect sets of hypotheses (beliefs) the acceptance of which are the implicit premises of “No!”—and also to consider normative guidelines. Perhaps the derivation of the less basic guideline is uncritical, or maybe both guidelines have relevant ambiguities in their tentative formulations. In short, there are indefinitely many factors involved, but this does not detract from the value of a systematization as a surveyable set of guidelines. I envy those who can work adequately without such systematization.

It does not matter whether our attempt to systematize ethical rules or principles starts with 100 or only one ultimate general rule. If we start with only one, a great many comments as to how to interpret its formulation will presumably be needed; if we start with 100, comments will focus on the many questions of internal consistency. In both cases indefinitely many relevant hypotheses are needed to describe the world that motivates the establishment of an environmental ethics. Some philosophers will presumably do as I do and continue to search for rather general principles adapted to new moral perceptions among people who are not professional philosophers. This I find compatible with what Eugene C. Hargrove says: “New moral perceptions will not be brought about by moral philosophers, but rather by everyone in general and by no one in particular” (Hargrove 1985: 36). This is also compatible with a strong tradition in applied ethics that tries to improve perception and apperception in fairly narrowly defined classes of situations, rather than to construct more or less general rules. Hargrove’s reference to progress in playing a game is helpful here: the gen-

eral rules are few, but the kinds of particular problematic situations are overwhelmingly rich and demand creativeness in their application.

The pluralism, or manifold, I am talking positively about in this article is not completely unrelated to recent monism-pluralism discussions. The concept of an ecosophy, a total view in part inspired by the ecological crisis, implies an affirmation of coherence and consistency of ethical views, including their relation to concrete decisions in particular situations. Complete articulation of a total view is out of reach, but perhaps a useful fiction. A mature, integrated human being somehow has to assume an integrated way of thinking and acting.

Articulated ethical and meta-ethical views, including ultimate premises about the nature of ethics, make up an ingredient within a systematization of a total view. A sort of “monism” may here be said to be implied. The human-nature relation is an ecosophy treated as a subordinate whole, in part ethical, in part nonethical. The effort to be coherent and consistent is, of course, only a fragment of the efforts of ethical reflection and deliberation. Any systematization is a kind of tool, and frequent changes are normal.

So a kind of monism is compatible with a positive evaluation of a manifold of total views, each constituting an organic whole, a “oneness,” a monism.

In the major area of ethics and metaphysical questions of central ethical relevance, J. Baird Callicott has pointed to a Hume-Darwin-Leopold line of social, human, and environmental ethics. In essence, he seems to maintain that work along that line will furnish the coherent, adequate theory that supporters of the environmental movement need. This is excellent if “one” is substituted for “the.” From my systems-oriented point of view, an invitation to work along that line is valuable and will hopefully be accepted by many who align themselves with the principles of the deep ecology movement. There are, however, other lines that need to be further explored, among them the Kantian—in a wide sense. The norm that a person should never be treated merely as a means may be generalized to cover all living beings, not just people. Kantian ideas in biology were long ago suggested by von Uexkull (1909, 1920). Philosophical Buddhism offers lines as well—for example, the one suggested by Gary Snyder (see Devall and Sessions 1985: 251–53). Gandhi sometimes considered Buddhism a reformed Hinduism. His interpretation of the Gita and metaphysics of Self-realization may fur-

nish some ultimate premises of a total view in part inspired by the ecological crisis. He was a firm defender of animal rights.⁴

Supporters of the deep ecology movement belong to different cultures and subcultures. Their social backgrounds vary, but they are able to cooperate because of a remarkable similarity of attitudes, remarkable similarities of slogans, remarkable similarity in practical situations.

When one works with systematization, as do some of us who are engaged in an ecological movement, it is useful to look into Vaihinger's great work, *The Philosophy of "As If"* (1935). There is not, of course, and will not be, any systematically articulated total view in terms of premise-conclusion relation. It is a fiction. However, in our attempt to act in a totally responsible way, we may be said, when we use arguments, *implicitly* to assume a consistent view. What we leave out of consideration is that we implicitly assume a consistent total view.

What we *explicitly* say in ethical conflicts is a different question. Word-by-word reports for or against certain decisions may well be characterized as derivations from "a hodgepodge of conflicting and unrelated moral principles, much like the principles of a good play developed out of chess theory in the late nineteenth and early twentieth centuries" (Hargrove 1989: 287). Cultural anthropologists studying an ethics as a set of moral customs will sometimes offer analyses of such observed verbal articulations. I find it encouraging that Hargrove is a kind of "moral pluralist . . . who is content to work with jumbles of somewhat unrelated, and sometimes conflicting, views and attitudes from various sources, without succumbing to the urge [which I perhaps have] to transform them into a unified system" (ibid.). Nevertheless, some of us view our environmental ethic as a source for further studies, as material for a cultural anthropology, and here articulation of fragments of total views is of practical and theoretical importance.

In the fight to implement a decision on the level of concrete situations, the supporters of the deep ecology movement cooperate with everybody who sincerely supports such a decision. What could the supporters achieve without cooperation with people whose general argumentation pattern—for example, in terms of premise-conclusion relations—is shallow or merely concerned with reforms? It is of interest to note that there are people who explicitly reject any definite proposal, such as that of Naess and Sessions, of a formulation of the principles of the deep ecology movement, but are inspired by the same philosophers as are many of the supporters.

A.T. Nuyen advocates a “kind of anthropocentrism” and “the view that nature has no value independent of human beings.” He derives these points from Heidegger, who is often used to derive the opposite conclusion. He professes a kind of instrumental view. “Only within the framework of that ethics [the Heideggerian existential ethics] does any practical policy toward the environment *make sense*, in much the same way as it makes sense for a pianist to care for his or her instrument, and for the Indians to cherish and preserve the forests” (Nuyen 1991: 366).

A question of the following kind has been asked: How does our idea of at least partly or occasionally incomparable differences at the ultimate level (of premises) of a total view, relate to “the case against untranslatable languages” as conceived by Donald Davidson?

The framework within which Davidson discusses untranslatability is conspicuously different from the one within which I am inclined to assert at least practical, if not theoretical, untranslatability as well as the more radical practical incomparability of sets of ultimate premises of an articulated total view. In what follows I refer to the text of Davidson’s essay “On the very idea of a conceptual scheme” (1984). Here are the most relevant passages:

There can be no doubt that the relation between being able to translate someone’s language and being able to describe his attitudes is very close. Still, until we can say more about *what* this relation is, the case against untranslatable languages remains obscure. . . .

By imagining a sequence of languages, each close enough to the one before to be acceptably translated into it, we can imagine a language so different from English as to resist totally translation into it. Corresponding to this distant language would be a system of concepts altogether alien to us. . . .

We may identify conceptual schemes with languages, then, or better, allowing for the possibility that more than one language may express the same scheme, sets of intertranslatable languages. . . .

The idea is then that something is a language, and associated with a conceptual scheme, whether we can translate it or not, if it stands in a certain relation (predicting, organizing, facing, or fitting) experience (nature, reality, sensory promptings). The problem is to say what the relation is, and to be clearer about the entities related.

(Davidson 1984: 185, 186, 191)

A small minority of deep ecology supporters have articulated ultimate or near-ultimate premises of their total views. Thus, Gary Snyder accepts the sentence "The universe and all creatures in it are intrinsically in a state of complete wisdom, love and compassion" (Devall and Sessions 1985: 251). What is intended by the sentence may become successively clearer by years of study of philosophical Buddhism, and through a life spent with people who try to live according to expressed Buddhist principles. I feel lost. Personally I use sentences expressing ultimate and near-ultimate levels of a total view of a Spinozist kind. Perhaps Snyder would feel lost listening to those.

Let us suppose it is asked, Can the Buddhist example be *translated* into a sentence within my Spinozist vocabulary? My answer, if shortness is required, is no. This, of course, is not a question of logical impossibility. I take the hypothesis of translatability to be an empirical one. The negative answer is not obviously relevant to what Donald Davidson is trying to clarify.

I have to do mostly with sets of premises of Spinozist, Kantian, Heideggerian, and Whiteheadian character (the S-K-H-W premises, for short). One set of premises is supposed to be expressed in Latin, two in German, and one in English sentences. What about their translatability? They may tentatively be said to express conceptual schemes.

The translatability of whole languages into each other need not be discussed. For me, it is not a major problem whether my Norwegian or my English can fairly well *convey the content* of philosophical texts written in other languages. It is crucial, though, to what degree the *content* of the S-K-H-W premises can be fairly well conveyed and be roughly compared in terms of agreements and disagreements. This does not imply translatability.

Sometimes a conventional quasi-translation into English is enough as a starting point. The problem then is whether extensive *comments* on the quasi-translation can convey the content. Let us consider an example. "There is or can only be one substance" (*substantia*) and "that you are" (*tat tvan asi*) present good quasi-translations of parts of a Latin and a Sanskrit text. The problem is to what extent a couple of pages or volumes of comments can convey fairly adequately what is intended to be expressed by the two sentences as conceived by their authors. Moreover, there is the problem of comparison of contents of the crucial sentences. Attention has to focus on the terms *substantia* and *tat*, that is, on fragments of vocabularies, not so much on grammar and syntax. Some philosophers think that the differ-

ences in the structures of languages narrow down the range of metaphysical positions that can be articulated and compared. That is not my experience. It does not affect my thesis that a moderate degree or extent of comparability is present. The “Whorfian approach” connects with my problem concerning understanding and comparability of ultimates. I am for the guarded optimism of Masson-Oursel (1926) and his conception of a *philosophie compare*: there is a *limited* comparability.

Does the S-K-H-W character encompass or imply four conceptual frames, for example, frames of general methodology (rules of logical inference, rules of testing hypotheses, rules of assessing “intention,” and so on)? How are they related to the question of comparing validity or adequacy of the rules? What is the outlook for introducing a vocabulary such that the S-K-H-W premises could be described by means of that definite, fairly sender- and receiver-precise vocabulary?

From my experience of attempting to translate Spinoza’s *Ethics* from the Latin into English and into Sanskrit (in the latter case, only the very beginning of part I), I conclude that there is *no chance* of providing an adequate translation. This conclusion holds, however, only for certain interpretations of the term *translation*. As an adequate translation of a text consisting of three sentences, I require here that it consist of three sentences, each being a translation of one of the originals. If each of the sentences requires comments, perhaps even books, to elucidate what was intended to be conveyed—implying, for example, comprehensive cultural anthropological studies—the resultant total document does not include an adequate translation in the sense adopted here. It is more like the “*that* you are” of *tat tvam asi*. It is placed in an English text and made the object of extensive commentary.

What about the terms *substance*, *substantia*, *Substanz*, and *dravya* as used by Descartes, Spinoza, Leibniz, Kant, Heidegger, Whitehead, and Sanskrit writers? I do not see much chance of a vocabulary into which what these authors try to convey by their term can be adequately rendered in a translation in a sense with which I am familiar. This does not imply that someone may not adequately *understand* what all of them try to convey by their term. (Personally I am at a loss.) What I suggest is that one may build reconstructions of ultimate premises of various philosophies delimited through definite texts, like that of the *Ethics* of Spinoza. The reconstructions try to keep

near that of the original in certain essentials but do not pretend to be historically accurate.

Put in a crude way: I believe that Spinoza may be said to have “had” a total view (a combined *Weltund Lebensanschauung*), which colors the meaning of all his key terms. We cannot in a few words articulate that color “itself.” People who have not studied his texts thoroughly seem to catch something of it. Lifelong study (like my own) need not help as much as might be expected: a law of diminishing returns seems to operate. This makes it excessively difficult to translate Spinoza adequately in the sense suggested. One has to offer complex commentaries, but the more these are philosophically non-neutral, the less they are helpful for readers with different basic views from the commentator’s. As to Sanskrit translation of the definitions found in Spinoza’s part I, learned Sanskritists with knowledge of Western philosophy tend to regard a program of adequate translation preposterous in its arrogance. The purely conventional translation of *dravya* as “substance” is useless except as a signal of which word is found in the original text.

In surveys of the history of philosophy, including my own, in which philosophers’ ultimate views are presented through quotations, or conventional translations, undergraduates may acquire a sort of vague understanding of various philosophies. I tend to think, though, that such surveys may also inoculate them against deeper understanding. Fortunately, the force of the inoculation tends gradually to diminish.

The sentence quoted from Davidson, “There can be no doubt . . . ,” I am inclined to reject. In at least one sense of translatability, and a very common one, every important attitude relevant in the ecological crisis can be understood and described by the activists in their different languages—this in spite of the complications that arise when they try to convey the meaning of the sentences they use when formulating their ultimate premises of a philosophical or religious kind. There is then no practical, and perhaps no theoretical, translatability. Basic structures of their conceptual schemes, if they can be said to “have” something like that, are not comparable because they lack a neutral total view, which can act as mediator or frame of common reference.⁵

One source of my attitudes within the philosophy of language and communication is the work of Bronislaw Malinowski and the “tribe” of an-

thropologists who are indebted to him. His work implies a tendency to be sceptical about a clear correlation of deepness of differences of language (as a certain kind of system of rules) and deepness of differences of cultural or total views. This sceptical attitude also influences the view of how linguistic systems relate to general or basic conceptual schemes or frameworks. Cultural anthropology and comparative linguistics affirm that there is an intimate relation between vocabulary, cultural value systems, and ontology, but not so much between this and syntax and other more abstract aspects of language. There may be something “dynamic” about the abstract linguistics of Hebrew (e.g., the position of verbs) that contrasts with the more “static” character of Greek, and this may, for example, correlate with the dynamic character of the Hebrew general ontological view and the more static character of the Greek. Interesting, yes, but consistent with the opinion that language (still in the sense of a certain kind of set of rules) has only indirect and limited influence on general or basic conceptual schemes.

Returning to the question of limitations of the comparability of conceptual schemes, I think they show up in every effort (the first being Ernest Cassirer's) to describe the relations between Spinoza's and Kant's ethics. Spinoza was scarcely a conceptualist, whereas Kant was. Already that creates certain complications. Perhaps Spinoza cannot be said to have a *conceptual* framework, nor an ethic in the sense of Kant. He certainly avoided using the term *ethica* in his *Ethics*, limiting it to the general title and the set of expressions “part *x* of the *Ethics*” (*Ethicae pars x*). On the other hand, I do not see how one could possibly *prove* limited comparability.

Even within the Indo-European family of languages, there are languages such that the term *nature* and the expression “humanity's relation to nature” cannot be translated into them except fairly conventionally. Classical Greek and its important term *areté* is an example. When *areté* is conventionally translated into “virtue,” it requires commentary. If we consider languages far outside the Indo-European family, metaphysical and religious texts are a source of wonder. What corresponds to environmental ethics? We may understand—vaguely. I should like to refer to stories and poems translated in Kenneth Katzner's delightful *The Languages of the World* (1977). A translation from the Hamito-Semitic language Hausa: “One day it was raining, the hedgehog greeted the squirrel saying, ‘How do you like the cold?’ . . .” The story has a philosophical point I think we readily un-

derstand. From the language Zulu of the Bantu branch of the Niger-Congo family: "Bury me where the grasses grow / Below the weeping willow trees. . . . Then as I lie there, I shall hear / The grasses sigh a soft behest: / 'Sleep, beloved one, sleep and rest.'" From texts we may infer traits of an environmental ethics, but how can we pretend to be able to compare in a methodologically neutral and adequate way meanings and validity of the ultimate premises of the total views?

The above seemingly pessimistic view of the feasibility of adequate translation and comparison does not rule out marvelous feats of effective intercultural understanding. Consider this case. A mountaineering expedition has a leadership of Westerners and a number of Muslim porters. There is no common language, but the Westerners understand that at a certain fairly late time of the day there is intense discussion among the Muslims concerning when to prepare a meal. It is Ramadan, and there should be no eating before sunset. This is all the Westerners know about the situation. Gradually, though, verbal and, more often, nonverbal signals are established that make intercultural "discussion" effective. The main point is, Where is the horizon? Eating requires the sun to be below the horizon. In extremely rugged country, there is no proper horizon and the view changes often and erratically. Another point, somewhat more difficult to handle by signals, is, Does the sunset rule apply strictly under every condition, and if not, what is legitimate now? My experience is that considerable differences in ultimate premises do not *significantly* affect most interpersonal interactions under "ordinary" kinds of problematic situations.

What would be a suitable general conclusion to this article? Perhaps it is this simple metaphysical thought: *the richness and diversity of philosophical and religious ultimate premises suitable for action in the ecological crisis may be in themselves considered part of the richness and diversity of life-forms on Earth.*

The Third World, Wilderness, and Deep Ecology

This article is motivated by listening to some people from the Third World who express a suspicion that deep ecology is a new variant of Western domination or neocolonialism: they fear that people of the Third World will be pushed out of their homes to make more room for spectacular animals. Some authors have expressed the opinion that deep ecology is for the rich nations that can afford the luxury of vast wilderness as habitat for wild species. In my opinion, however, it would indeed be tragic if such ideas spoiled the much-needed cooperation among supporters of the deep ecology movement around the globe, including in the Third World.

Throughout most of human history, human beings have lived in what we now call wilderness. As Gary Snyder (1990: 7) points out:

Just a few centuries ago, when virtually *all* was wild in North America, wilderness was not something exceptionally severe. Pronghorn and Bison trailed through the grasslands, creeks ran full of salmon, there were acres of clams, and grizzlies, cougar, and bighorn sheep were common in the lowlands. There were human beings, too: North America was *all populated*. There were people everywhere. . . . All of the hills and lakes of Alaska have been named in one or another of the dozen or so languages spoken by the native people.

Until they became agriculturalists, our ancestors left few traces. Ecosystems were not appreciably changed, except by large fires, and probably through the extermination of some large animal species. For the most

This article was reprinted with permission from *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions (Boston: Shambhala Publications, Inc., 1995), 397–407.

part, though, landscapes and ecosystems were not irreversibly reduced in richness and diversity, and the basic ecological conditions of life were maintained. There is not today, nor was there ever, any essential conflict between human beings in moderate numbers and a state of wilderness or wildness. There are reasons today, however, for some areas to be left entirely devoid of human settlement, and for limiting even short, carefully arranged visits by scientists to a minimum, but this should be looked upon as an exceptional situation.

At present, there are old-growth forests in Australia, for example, that are inhabited by ecologically conscious and careful people. This situation illustrates the essential compatibility of people living in wilderness with a presumably high quality of life—a “rich life with simple means.” They use plants for food and other purposes, but they do not, of course, engage in subsistence agriculture.

What is considered a normal lifestyle in industrial countries is clearly incompatible with living in wilderness. Industrial people interfere so severely with natural processes that even a very small number of them can significantly alter the landscape. For example, it is widely recognized that people doing research in the Antarctic should use extreme care not to damage the ecosystems, but it is also clear that the rules are widely disobeyed.¹ Bad habits are difficult, but not impossible, to change!

It is unavoidable that some people concerned with the protection of wildlife and natural ecosystems tend to see a direct and global antagonism between human settlement and wilderness. Supporters of the deep ecology movement, however, like many others, know that wilderness, or wildness, need not be destroyed by people living in these areas (or nearby), and that they may enjoy a high quality of life.

It is not possible for people living in the United States to interfere as little with the wilderness as did the traditional American Indians, and Gary Snyder (and other articulate American supporters of the deep ecology movement) insist that there should be no further destruction of wilderness in America. Even what is now set aside in the United States as designated wilderness is interfered with too much. The traditional point of view of the U. S. Forest Service still has a lot of influence: “Wilderness is for people. . . . The preservation goals established . . . are designed to provide values and benefits to society. . . . Wilderness is not set aside for the sake of its flora or

fauna, but for people.”² It is not only the “*but for people*” that makes all the difference, from Gary Snyder’s point of view, but also the term *society*. People who live in wilderness, or who have their roots in wilderness, form *communities* rather than “societies.” There is a vast difference between the slogan of the World Wildlife Fund (“Wilderness for people”) and the meaning of the U.S. Forest Service’s phrase “wilderness for American society.”

Those people in the United States who are actively trying to stop the destruction of wilderness do not tend to publish *general proposals on how to treat apparently similar problems in the Third World*. At least this is true of the-oreticians of the deep ecology movement. Nevertheless, there are writers who look upon “radical environmentalism,” including deep ecology, as a threat to the poverty-stricken people of the Third World. The opinion is not uncommon that people in the rich Western world tend to support wild animals and wilderness rather than poor people. However, the real question is, *How* can the poor be helped in a way that is sustainable in the long run?

Close cooperation between supporters of the deep ecology movement and ecologically concerned people in the poor countries requires that the latter trust the former’s concern for the economic progress of the poor. What is progress in this case? Is consumerism progress?

The principle formulated by Gary Snyder is applicable in Third World countries: that is, there is no inherent antagonism between human settlement and free nature, for it all depends on the *kind* of culture the human beings have. It should be a universal goal for mankind to avoid all kinds of consumerism and concentrate, instead, on raising the basic quality of life for human beings, including the satisfaction of their economic needs.

The number of poor people in Third World countries is too large for all of them to dwell nondestructively in the tropical forests; more and more subsistence agriculture in these forests neither serves the best interests of the poor nor protects the forests from destruction. Millions of people now live in the tropical forests in a broadly sustainable way, that is, without reducing the richness and diversity of life-forms found there. What is now happening, though, is an *invasion* of those areas, resulting in major disruption of the people and the communities who have been living there in harmony. The forests are clear-cut and burned, and subsistence agriculture is introduced. These practices cannot help the poor reach the goal of long-

term economic progress. This is true as well of the large industrial operations in the forests and along the rivers.

The present ecological world situation requires focusing attention on *urban* settlements, changing them in ways that will make them appropriate and habitable places for the thousands of millions of people who now, and in the next century, will need a place to live. This gigantic effort will require mutual help between rich and poor countries. Significant economic progress for the poor is not possible through the extensive use of less fertile lands for agriculture. *There is no way out except through urbanization*, together with the willingness of the rich to buy products from the poor.

It has been pointed out that, from an ecological long-range perspective, the economies of some traditional North American native cultures were superbly sustainable in a broad sense. It has been noted that the philosophical, religious, and mythological basis for these economies, and for their social relations in general, was expressed through sayings that are eminently consistent with the fundamental attitudes found in the deep ecology movement. Similar sayings found in Eastern cultures have had an even greater impact. As the Indian social ecologist Ramachandra Guha (who has published what he sees as a Third World critique of deep ecology) claims, "The coupling of (ancient) Eastern and (modern) ecological wisdom seemingly helps consolidate the claim that deep ecology is a philosophy of universal significance" (Guha 1989: 74). The total views suggested among supporters of the deep ecology movement do, in a sense, couple "(ancient) Eastern and (modern) ecological wisdom," although there are reasons to be cautious here.

To cherish some of the ecosophic attitudes convincingly demonstrated by people from the East does not imply the doctrinal acceptance of any past definite philosophy or religion conventionally classified as Eastern. Heavy influence does not imply conformity with any beliefs: the history of ideas and contemporary philosophizing are different subjects. At any rate, there is ample reason for supporters of the deep ecology movement to refrain from questioning one another's ultimate beliefs. Deep cultural differences are more or less cognitively unbridgeable and will remain so, I hope.

Desperate people (including desperately poor, hungry people) will naturally have a narrow utilitarian attitude toward their environment, but overall, the people of the Third World, apart from the desperate minority,

manifest a positive concern for the protection of free nature, and a respect for nonhuman living beings. At least, this has been my experience while living among poor people in India, Pakistan, and Nepal (and others in the Third World agree with me on this point). Without these experiences, I would not have talked about the international basis of a deep ecology movement.

Temporarily pressing problems of material need might monopolize the attention of people of the Third World, but this is also true of people in similar circumstances in the West, despite their affluence. In short, there is a sound basis for *global* cooperation between supporters of the deep ecology movement and ecologically concerned people in the Third World, and also with people who try to understand and lessen the poverty in those regions. These people cooperate in movements against poverty that do not entail further large-scale deforestation, and there is no tendency to support animals at the expense of human beings within the framework of this cooperation.

To social ecologists in countries less affluent than the United States, it may look threatening when environmental activists in the United States declare "an unflinching opposition to human attacks on undisturbed wilderness" (Guha 1989: 74).³ Some activists even engage in un-Gandhian ecotage; for example, destroying vehicles and other machinery while making sure that no one gets hurt in the process. So far, there have been very few authenticated cases of anyone being seriously hurt. Considering the vehemence of these struggles, and the passions involved, this should be considered a great victory.

Clearly, these intense, personally involved activists are speaking primarily about wilderness in the United States, not necessarily about the situation on other continents. At least, this is true of supporters of the deep ecology movement. This point, however, can be easily overlooked by observers in the Third World. Unflinching oppositions to the cutting down of *any* trees, or to the establishment of *any* new human settlements in any wilderness *whatsoever*, is a preposterous idea presumably held by no one. The real issue here for the Third World is, How much wilderness and wildlife habitat is it acceptable to continue to modify and destroy, and for what purposes?

In the richest nations of the world, the destruction of old-growth

forests still goes on. There is ample justification for activists in the United States to focus on these destructive, mindless, irreversible activities. The term *ecocriminality* is a suitable word for this forest destruction, and a question of great importance arises here: given their own unecological practices, do the rich nations deserve any *credibility* when preaching ecological responsibility to the poor countries?

One has to distinguish among three things: (1) the current dismal situation concerning the lack of protection of wilderness; (2) the estimates published by conservation biologists concerning the size of wilderness areas needed for continued speciation; and (3) the more-or-less realistic plans put forth by established environmental organizations (e.g., the World Wildlife Fund and the International Union for the Conservation of Nature) concerning how to improve the existing state of affairs for protecting wildlife and wild ecosystems. (It should be pointed out that, given the estimates of Frankel and Soulé that an area on the order of 600 square kilometers is necessary for the speciation of birds and mammals, of course nothing *specific* follows concerning how to achieve what is deemed necessary for this purpose.)

Is the idea that “the biosphere as a whole should be zoned” considered threatening to some in the Third World? Actually, it should be considered more of a threat directed against First World practices than toward any other nations. For, according to Odum and Phillips, establishment of protection zones “may be the only way to limit the destructive impact of our technological-industrial-agribusiness complex upon the earth” (Sessions 1992). This is clearly a warning directed more toward the destructive practices of the First World. Of course, if Third World elites try to copy First World excesses, then the situation will change.

The movements supporting the establishment of “green” societies, and a global green movement, have their origin among people in the rich countries. It is understandable both that they have not had much impact so far among people in the Third World and that they are met with suspicion. The priorities among First and Third World countries are, and to some extent must be, different. Furthermore, “green utopias,” and even everyday conceptions of what constitutes greenness, tend to be rather uniform, as if green societies would look very much alike in spite of the deeply different

cultures and traditions of the world. It is to be hoped that there would be no standard green societies, no *Gleichschaltung* of human institutions and behavioral patterns; that economically sound societies of Africa, South America, and Southeast Asia would not resemble present-day rich countries except in certain superficial ways.

Some people think that “ecological sustainability” will be attained when policies have been adopted that will protect us from great ecological catastrophes. It is beneath human dignity to have this as a supreme ecological goal! Ecological sustainability, in a more proper sense, will be achieved only when policies on a global scale protect the full richness and diversity of life-forms on the planet. The former goal may be called “narrow”; the latter, “wide” ecological sustainability. In short, it is my opinion that *a necessary, but not sufficient, criterion of the fully attained greenness of a society is that it is ecologically sustainable in the wide sense.* (The Bruntland Report admits of various interpretations, but it does envisage a sustainable “developed” country to be one that satisfies the wide sense of ecological sustainability.)

A small digression: When I do not go into complex argumentation but just announce that, for example, it is beneath human dignity to aspire to less than *wide* ecological sustainability, I intend to express a personal view (and as with other assertions) thought to be *compatible* with the views of the deep ecology movement’s supporters. My assertions *that* supporters of the deep ecology movement have such and such attitudes or opinions are, of course, more or less certain, and should not be taken as assertions that strictly everybody has those attitudes or opinions.

It should be clear that the realization of wide ecological sustainability will require deep changes in the rich societies of the world having to do, in part, with their policies of growth and their overconsumptive lifestyles. If we accept that the realization of the goals of the deep ecology movement implies wide sustainability, two questions immediately arise: (1) does the realization of wide sustainability presuppose or require acceptance of the views of the deep ecology movement? and (2) does the realization of wide sustainability require significant changes in Third World societies?

If we answer yes to the first question, this might be interpreted as an assertion that the realization of wide sustainability would require that most members of the relevant societies accept the views of the deep ecology

movement. As I see it, this is not necessary (and it would imply a change of heart of an extremely unlikely kind!). A “yes” to the first question might also be interpreted as the assertion that a sufficiently strong minority would be needed to bring about wide sustainability. This situation may well arise. (I do not mean to claim here that a definite answer to the first question is conceptually implied. A decisive no to this question is thinkable. It does seem clear, however, that the more people who explicitly or implicitly accept the views of the deep ecological movement, the better.)

As to the second question, a “yes” answer seems warranted as far as I can judge. In Third World countries today there is a general tendency to attempt to follow an “economic growth and development” path that emulates the rich countries. This must be avoided, and to avoid it requires significant changes in the orientations of those societies.

What kinds of changes are necessary? A discussion of the nature of these changes has intentionally been left abstract and general in the deep ecology platform. Point 6 of the platform states that “Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.”

It is obviously pertinent to ask, Exactly which changes need to be made? It is also pertinent to note that times change. A short answer to this question seems much more difficult to provide in 1993 than it was in 1970. Practically every major concrete change envisaged in 1970 today seems either more difficult to realize or not unreservedly desirable in the form in which it was proposed in 1970.

As a preliminary to serious practical discussion, one must specify which country, state, region, society, and community one has in mind. The distinction among First World, Second World, Third World, and Fourth World is still relevant, but practically all deep ecology literature has focused on rich countries, even though there are many supporters in other kinds of countries. The “sustainability” literature is fortunately more diverse.

As an example of social and political change that was highly recommended in 1970, but not in the 1990s, one may mention various forms of decentralization. Today, the global nature of all the major ecological problems is widely recognized, along with the stubborn resistance of most local, regional, and national groups to give global concerns priority over the less-

than-global, even when this is obviously necessary to attain wide global sustainability. To the slogan "Think globally, act locally" should be added a new one: "Think globally, act globally." Even if we take it for granted that your body is geographically at a definite place, nevertheless every action influences the Earth, and many of these may be roughly positive or negative. Actions are global whatever the locality in which you act. Many fierce local or regional conflicts have a global character, crossing every border and standard-of-living level.

The moderately poor people in the Second and Third worlds may seem more helpless, for example, than the coastal people of rich Arctic Norway, but the ecological conflicts are, to a remarkable degree, of the same kind. Communities in Arctic Norway that live largely by fishing within a day's distance of land are in extreme difficulties, because the resources of the Norway Sea, and even of the vast, uniquely rich Barents Sea, have been badly depleted. For the coastal people it is "a question of sheer survival" but, because Norway is a rich welfare state of sorts, there is no chance that they will go to bed hungry. If the policy makers had seen the intrinsic value, the inherent greatness of the ocean with its fullness of life, and not *just* its narrow usefulness as a source of big profits—trawling, ocean-factories—then the coastal people could have retained their way of life. They would not have lost their self-esteem by having to migrate to the cities. The supporters of the deep ecology movement in the rich countries are not in conflict with deep ecology supporters in the Third and Fourth worlds. Such behavior would be strange indeed, because the global perspective reveals the basic similarity of the situation among poor and rich.

The Sami people (wrongly referred to as Laplanders), a Fourth World nomadic people living in the Arctic Soviet Union, Finland, Sweden, and Norway, have resisted being completely dominated by these four powerful states for the last 400 years. When a big dam was proposed in their lands (as part of an unnecessary hydroelectric development), thousands of First World people joined them in protest. When a Sami was arrested for standing "unlawfully" on the shore of the river, the police asked him, "Why do you stay here?" He answered, "This place is part of myself." I know of no major ecological conflict anywhere that has not manifested the power and initiative of people who are not alienated from "free nature," but who protect it for its own sake as something having meaning in itself, independent

of its narrow human utility. This kind of motivation for protection of “free nature” adds substantially to the strong, but narrow, utilitarian motivation.

Sometimes the environmental concern of poor Third World communities seems to Westerners to relate to the “environment per se.” As an example, the people of the Buddhist community of Beding (Peding) in the Rolwaling Himalaya live with the majestic holy mountain Gauri Shankar (Tseringma) straight above their heads. It has long been the object of religious respect. Some of us (mountaineers and deep ecology supporters) asked the people whether they wished to enjoy the profits they would get from expeditions by Westerners and Japanese trying to “conquer the mountain,” or whether they preferred to *protect the mountain itself* from being trodden upon by human beings with no respect for its cultural status. The families of the community came together and unanimously voted for protection. I had the honor of walking for a week with the chief of the community, Gonden, to deliver a document addressed to the King of Nepal in Kathmandu, asking him to prohibit the climbing of Gauri Shankar. There was no reply. The rich Hindu government of Nepal is economically interested in big expeditions, and the opinion of the faraway Buddhist communities of poor people carries little weight.

The work of Vandana Shiva and others shows how women in rural India continue to try to protect an economy that is largely ecologically sustainable. Do they have the power, though, to resist Western-inspired unecological development?

Consider an example from Africa. Large areas in which the Masai live may be classified as areas of “free nature,” if not wilderness. The Masai are not disturbed by the vast populations of spectacular animals on their lands, such as lions and leopards, together with hundreds of others, nor are these animals severely disturbed by the Masai. For a long time, there has been a remarkable compatibility between people and wild animals. As more or less nomadic herders, the Masai do not need land set apart for agricultural purposes.

What holds true for the Masai holds as well for a great number of other peoples and cultures in the Third World. Ecologically sustainable development may proceed in direct continuity with their traditional culture as long as population pressures remain moderate.

Lately, the Masai have been spending more and more money for motor

vehicles and other products they don't make themselves. This makes it tempting to sell parts of their territory to farmers looking for land for their many children. From the point of view of economic development, such sales are unfortunate because the relevant kind of subsistence agriculture does not lead to economic progress. The Masai can obtain sufficient cash through very carefully managed tourism and still have the traditional use of the land and preserve their cultural continuity. Some supporters of the deep ecology movement are working with the Masai to help them keep what is left of their land intact. An increase in subsistence farming, in this situation, is a blind alley, but the alternatives are all problematic and there are no easy answers to be found anywhere.

Individual arguments can be singled out and used and misused to defend a variety of mutually incompatible conclusions. In his paper, Guha warns that such is the case with arguments used by supporters of the deep ecology movement. Nor does this happen just to deep ecology supporters in the United States.

After a speech I gave in Norway in favor of considering the Barents Sea seriously as a whole, complex ecosystem (together with treating the living beings, including the tiny flagellates, as having intrinsic value), the politician considered to be the most powerful proponent of big fishing interests is said to have remarked, "Naess is of course more concerned about flagellates than about people." My point was that the tragic situation for fishermen today could have been avoided if policy makers had shown a little more respect for all life, not less respect for people. In every such case, one has reason to say that communication on the part of the supporters of deep ecology was imperfect. In this case, I certainly should have talked more about people than I did, but not to the exclusion of flagellates, radiolarians, and all the other life-forms that attract the interest of only a minority of people—and certainly not to the exclusion of ecosystems as a whole.

In 1985, at the international conservation biology conference in Michigan, a representative of a Third World country stood up and asked, "What about *our* problems?" Of course, it was strange for this person, and other representatives of the tropical countries, to hear discussions, day after day, on the future of biological processes in their countries without mention being made of the main social and economic problems facing those countries. If the conference had been organized by the Green movement, the agenda

DEEP ECOLOGY PRACTICES

would have been somewhat different. The discussions concerning how to deal with the ecological crisis would have taken up, let us say, only one-third of the time. The other two-thirds would have concerned mainly social problems ("social justice," I would say) and peace. The representatives of the Third World could have introduced the latter two areas of concern and could have stressed that efforts to protect what is left of the richness and diversity of life on Earth must not interfere with efforts to solve the main problems they have today.

Supporters of the deep ecology movement, however, might have raised the following question for discussion. "How can the increasing global interest in protecting all life on Earth be used to further the cause of genuine economic progress and social justice in the Third World?"

Such questions will inevitably bring forth different and, in part, incompatible proposals. As we explore these incompatible proposals, we must never lose sight of the importance to all human beings everywhere of preserving the richness and diversity of Life on Earth.

The Tragedy of Norwegian Whaling

Response to a Norwegian Environmental Group's Support for Whaling

There is a minority everywhere—as far as I know—who sees in other living beings something like themselves: something that wishes to live, something that rejects interference, something that has a kind of right to live, a kind of right they all have in common. This right does not negate the right to satisfy vital needs, a circumstance that implies killing. What, though, is a *right*? Philosophers disagree. Perhaps the term should not be used, but as long as human beings say they have a right to something, I think we might also use the term when referring to nonhuman life-forms. Most people belonging to the above-mentioned minority have little formal education and they have not heard talks about ecological sustainability. Those who have, like myself, insist that the biodiversity and *abundance* of living beings should not unnecessarily be reduced. *Full* ecological sustainability presupposes that as long as vital needs do not require serious interference, we respect the norm “Live and let live!”

In the 1980s there was a strong movement in favor of protecting marine mammals, even those that were not obviously in danger of extinction. It is not clear how this movement developed strength and led to international agreements. It seemed, though, that one of the most barbaric principles ever concocted by human beings would be overcome and repudiated. I refer to the principle that human beings, because of their special status on

This article was reprinted with permission from *North Sea Monitor* (December 1993).

Earth, have the right to kill off the population of whatever kind of living beings they encounter—as long as they *respect the limit of extinction*. Human beings have the right to “harvest the surplus”—that is, the unnecessary members of the community of marine mammals. Why should they live? No reason.

One way to convince people that there is something gravely undignified in this way of thinking is to confront them with the following little tale:

Representatives from a faraway planet land on Earth. Their technology is overwhelming. It is clear that we cannot arrest them. They carefully explain that they respect all living species. They study the limit of extinction and, just like Earthlings, protect species in danger of extinction. They simply want more resources and territory. “You must agree,” they tell us, “that there is a surplus of human beings. You let thousands of other species perish.” They admit, however, that the accomplishments of humankind are astonishing, and so they promise to let many more live than is necessary for species survival. Moreover, they are proud that their technique of killing is even better than those used by Earthlings when they mercifully kill whales. “You just hear a couple of wonderful notes from Mozart’s *Requiem*, and all is over. Trust us, we are humane and respect you highly.”

I imagine most people would find the way the invaders talked to us human beings shocking and outrageous. People would consider them barbarians for treating us as if we were mere animals. I belong to the minority that considers the expression *mere animals* questionable. Whatever our brilliance, our unique achievements, we should apply the maxim “Live and let live!” Or better, *because* of our unique endowments, we should at least try to apply that aphorism.

Preliminary investigations suggest that when asked explicitly about these questions, the majority of Norwegians maintain that living beings have intrinsic value, that it makes sense to do something for their sake, that poisonous snakes “belong” just as we belong, that animals have a right to territory (but that we “take” the right to expel them), that killing mammals is justified in order to satisfy vital needs but killing for pleasure is somewhat problematic. Some doing research on attitudes talk, though, about a certain kind of “schizophrenia”: people seriously proclaim that they subscribe to certain values but vote for political parties that they know will

not respect those values once they seem to conflict with “near” economic or other basic group interests.

The tiny Norwegian whaling community is, of course, in favor of continuing its traditions. It is located in the north of the country where there exists a tradition of solidarity, of standing up against decisions made at the power center in and around Oslo. It is, therefore, natural that the whole of north Norway supports the whalers.

The whalers have boats of very high quality, and their seamanship is on the same excellent level. They are used to the storms of both the North Atlantic and the Barents Sea. It is, therefore, suggested that they should be invited to partake in the fight against overfishing and criminal use of life-destroying fishing techniques in the Atlantic Barents Sea. It is generally acknowledged that there is a great need for control. In the 1980s there seemed to be a basis for agreement between whalers and the authorities, agreement that a change of jobs would be of interest to all parties, but politicians at the time considered it “politically impossible.” It is of interest to note how often plans that require a new way of thinking are quickly considered politically impossible by modern Western democracies. A considerable number of Norwegians have in the twentieth century had to change their jobs, however traditional, but the international pressure to stop whaling, in spite of eager demand from the market, is perceived as a threat to Norwegian sovereignty. As for the painfulness of the methods used to kill whales, they are believed less painful, because of the low level of shooting ability required, than the methods used to kill moose. So, it is sometimes argued, restrict the shooting of moose before further restricting whaling!

The minority I belong to is uncomfortably aware of the dominant position of the world’s richest nations. Norway is not only economically rich but also has no severe internal problems to cope with. We cannot in any way justify interference with the life of marine mammals along our coast and in the ocean to the north and west. If we announce that we are not able to join in international protective measures because of the threat to jobs, what can we say against countries in the Third World that may now consider starting whaling? Norwegian periodicals make it clear that within the foreseeable future a series of species, other than minke whales, will no longer be threatened and that harvesting of the surplus in tightly controlled numbers ought to start. It is at the same time obvious that tight

control is out of the question. There is not even a realistic plan as to how to implement close and effective inspection of our vast oceans.

The decision of the Norwegian government to continue commercial whaling deserves to be called a tragic decision because it reminds people in power all over the world that the ban on whaling, even if there is a surplus of whales, goes squarely against policies most of them have adhered to. It collides with a belief in the right of human beings to use everything non-human purely as a means, for whatever purpose.

There is reason to believe that the Norwegian government's vast and costly effort at persuading the world to see the whaling issue from its point of view will be successful in the long run. With a surplus of whales, how can they be left *untaxed* when there is such hopeful demand in the markets?

A potent weapon in Norwegian propaganda is the continuous repetition that they have science on their side. Science enjoys a high reputation compared to "mere" feelings, and it has certainly made an impression. The reference to science is a reference to the agreement of experts that there are more minke whales than necessary to avoid the chance of extinction. For years I have trusted that this is the case.

Truly remarkable is the implicit opinion here that the norm against extinction of a species is "scientific." If Norway has science on its side, but opponents have not, because of their (more general) norm, what makes the narrower norm scientific? One way of answering this is to maintain that a species may have as yet undiscovered properties of usefulness to humankind, for example for medical purposes. However, feelings are still implied, perhaps: a feeling that whatever serves humankind is good, or a pretension that such a feeling exists.

It is unfortunate that on the whole the larger environmental organizations have felt it appropriate to focus their arguments on the reliability of estimates of whale numbers. Apparently it is not enough to hold that whales ought to be protected whatever their numbers. Besides, why adopt a stance that sooner or later, with rising whale numbers, would have to be given up? The answer, of course, is clear: protection is the main thing, not the question of numbers. Unfortunately, it seems that many environmental groups are not prepared to take this more radical stance.

The Norwegian Society for the Conservation of Nature (NNV) is an umbrella organization that attracts support from a broad cross section of

the Norwegian people. It is comparable to the Sierra Club in the United States. The NNV has discovered that to be officially against whaling alienates a considerable number of its 60,000 members. Having said this, it is not quite clear to me why, in their published material, they have found it necessary to adopt such obnoxious terminology: "Our basic attitude is that humans should be allowed to *harvest* the *surplus* of a species when this can be done without depleting the stock" (my emphasis). This language is of the kind used in relation to organized agriculture, not wild entities. It does nothing to reveal that we are involved with fellow creatures that quite possibly have value in themselves, some interest in being alive, creatures it would be natural for us to help not only to live but to *blossom*. "[T]he North Eastern Atlantic *stock* of minke whales is large enough to be able to withstand a limited *taxing*" (my emphasis again). We would shudder if somebody talked about taxing human beings! "For many in Western Europe and America the whale has a special symbolic status. . . . Whaling opponents do not have the right . . . to demand that others see the whale as a holy animal." Here NNV is on safe ground.

The terminology of the NNV majority is that of the economy of material resources. A wholesale store may possess a small or large stock of books and pencils of different kinds. Fellow beings like wild animals are not the "property" of human beings. The store may own a surplus of textbooks on mining, hundreds of copies that could go on sale or be put in the dustbin. If a species develops into a formidable threat to other species, ecological measures, agreed upon internationally, may be put into action. This is not a question of "surplus."

Economic and technological development in the world's richest countries has resulted in the loss of a great many traditions. Mostly the losses have not been considered a tragedy even if the result has been difficult times of transition for large groups of people. The Norwegian budget includes substantial subsidies of various kinds and there is plenty of opportunity to help the whalers with their excellent boats to obtain year-round work of a dignified, internationally valuable kind. Support would also be appropriate for larger vessels capable of duty off the coast of Third World countries. Norway need not oppose the decision of a great many countries that the time has come to protect more whales than are needed to avoid extinction. Unfortunately, a national society for nature conservation in a na-

tion bent on whaling must accept so-called careful, humane whaling or face financial ruin.

The minority with whom I sympathize finds neither the existence of people who consider whales (and only whales) as sacred animals nor *their* support for the protection of whales as arguments *against* protection. It so happens that for the first time in the history of the industrialized world it has been proposed that a large group of mammals be protected from *more* than extinction. It may be that the proposal came too early. I hope not.

Conclusion

The twentieth century will not see defeat of the arrogant free-for-all killing, down toward the level of extinction, of large groups of mammals. There is a chance this will happen in the next century, if vast hunger is overcome, and whaling thus not strictly necessary, or if the dominance of the rich industrial countries continues and they find they can “afford” to protect whales in spite of market opportunities. We must hope that hunger does not take a form that would make it difficult to argue against the protection of any nonhuman species. Paradoxically, such a global state of affairs may well result in warlike conditions, at the cost of considerable human life as well.

As to Norwegian whaling, what is politically impossible today may be politically possible in the twenty-first century: the mobilization of whalers and others in the global battle against the theft of ocean life.

An Example of a Place: Tvergastein

The Global Place-Corrosive Process

When the majority of people lived on the land, with little mobility, it was natural to feel at home at certain places. One stayed at home, left home, went home—but home was not a building. The advertising of “homes” for sale is not an offer of a home in the connotation relevant to our analysis. Home was where one belonged. It was “part of oneself,” that is, it delimited an ecological self, rich in *internal* relations to what is now called environment. Humanity today suffers from a place-corrosive process.

Urbanization, centralization, increased mobility (although nomads have proved that not all sorts of moving around destroy the relation of belonging somewhere), dependence on goods and technologies from where one does not belong, increase of structural complication of life—all these factors weaken or disrupt the steady belongingness to a place, or even hinder its formation. There seems no place for PLACE anymore.

Nevertheless, the loss of place is felt, the longing persists, and this emphasizes the need to articulate what it means to belong to a place. Doing so strengthens the movement toward the development of a sense of place to reinvigorate the internal relation of the self to the environment. This movement is of prime importance for the motivation to partake in the deep ecology movement. Most supporters of the movement are people who are intimately acquainted with urbanization; it actually facilitates their capacity to think globally. People who are completely absorbed in the land have

This article was written in 1992. It is being published here for the first time.

no need for high levels of abstraction and articulation, nor do they have the training to make their *implicit* global attitudes a basis for action.

The *implicit* global attitude does, sometimes, show itself in action. In the 1950s, when people in Norway were asked to contribute money to help fisheries in the south of India, the nonurbanized, relatively poor people in extreme arctic Norway contributed the most. Of course, what is of *most* importance to these nonurban people is their homestead. It is clear that only the destruction of fisheries through overkill, and the destruction of local and provincial markets, would make them consider leaving their homestead, their *hjemsted* (home-place).

It is important for those who have experienced the place-corrosive process but somehow saved their belongingness to a place (at least in somewhat modified form) to tell others about how their sense of place survived. This may help others strengthen their motivations, and it may also strengthen and purify how those who still feel belongingness act out their chosen way of life and priorities.

This introduction may seem somewhat bombastic in relation to what I am going to say about the place Tvergastein. Not many people are in a position, or would have the inclination, to identify with a place like Tvergastein. However, the development of a place for a person to feel at home, and to belong, shows exceptionally clearly *some of the forces at work in the establishment of a place* (or perhaps I should say establishment of a place as a Place). Unfortunately, the reader will have to consider some autobiographical details. I have to say some words about how I came to look toward Tvergastein as my future place.

Geography

About 200 kilometers east of Bergen are two great landmarks, the Hardangerjøkul (a dome-shaped glacier of about 80 square kilometers, a remnant of the time when Norway, like Greenland, was covered with ice) and a 40-kilometer-long broad mountain called Hallingskarvet, running from east to west. This mountain is composed of hard eruptive rocks laid bare millions of years ago through the erosion of softer mountains. From its southeastern slopes, one may survey an enormous part of southern Norway (tens of thousands of square kilometers). On these slopes we find a place called

Tvergastein, 1,500 meters above sea level, with a lake named Tvergasteintjernet. Softer rocks have been protected by the overlaying, hard, 200-meter near-vertical part of Hallingskarvet.

The stupendous, majestic Hallingskarvet captured my imagination from the time I was about five years old, staying during Easter and summers in a cottage at Ustaoset, a tiny village about 8 kilometers from the mythogenic mountain where I developed my place.

In *documents*, “Tvergastein” is the name of the cottage at Tvergastein, the place. In terms of *geography*, the “place” is the name of the cottage *and* its immediate surroundings, that is, about 40 meters in all directions from the walls of the cottage. A wider usage, referring to a greater gestalt, treats the place as comprising the lake, Tvergasteintjernet, and a whole shelf on the slopes of Hallingskarvet as seen from the cottage (which is situated directly under the precipices of Hallingskarvet). Geographically, this is an area of a couple of kilometers in length, and rich in contrasts. Compared to the region of *seter* (mountain pastures), it is a world apart, reflecting arctic conditions at 1,500 meters at 60°5' north latitude and very different from the 1,000-meter level (arctic yes, but influenced by the Gulf Stream from the west). From Tvergastein, the mountains and glaciers around the great Hardangerfjord are clearly seen—and appreciated.

Even from a distance Hallingskarvet looks greenish, but this is clearly not the result of grass. The Place asked to be studied and the greenish cliffs asked to be recognized as such. When looked at closely, it revealed innumerable patches of beautiful green lichen. The Tvergastein Naturalist Library indicated that a particular species, *Geographicus*, was responsible for the green color. There were lots of other lichens, but a study of them required the use of a microscope and was rather technical compared to the study of flowers. Anyhow, the most “barren” parts of the visible surface of Hallingskarvet were alive even in the narrow sense of consisting of organisms—myriads in every square foot. The lichens are strangely connected beings: algae intimately interrelated with fungi. A still stranger connection: algae, fungi, human beings.

In the early summer mornings (at 3 or 4 A.M.) the huge shadow of Hallingskarvet keeps the landscape toward the south and west sleeping in semidarkness, but by 5 A.M. the sunshine brightens hundreds of small lakes and tiny patches of water on the plateau below Tvergastein, and at about 7

A.M. the sun appears over the mountain and penetrates the east window of the library, hitting a wooden plate painted stark black, thus contributing to the heating up of the small room.

The early morning sun also illuminates a faraway, 30-mile-long string of metallic electric masts and thick wires—hydroelectric power destined for Oslo, 200 miles away. Each mast is an elegant structure revealing much love and ingenuity on the part of the engineers, but such a string of masts transforms the landscape. If only a few mountainous landscapes were changed in this way, we probably should not complain and feel sorrow. However, the number of landscapes without these strange beings diminishes rapidly. There are now more than two million gigantic masts around. The masts would have a less disturbing character if the power were used to increase the quality of life. As it is, the power is to a large extent wasted, which contributes to making people unaware of their fantastic material richness. What does a gallon of boiling water mean in the cities? Nothing. At Tvergastein it is a formidable luxury, enough to satisfy a host of essential services, a gift of nature of the most astonishing character.

Flowers

Arriving at Tvergastein from below, some people might call its flowers small, inconspicuous, unspectacular, even poor or insignificant. Let us say we point to green patches of *Salix herbacea* (mouse-ears). If we say “Look!” some people would answer “What? What do you see?” They see tiny unspectacular leaves like ears of mice (*musøre*). These plants (“huddling together”) rarely reach more than an inch from the rock—you see no soil. In front of the cottage, they reach half an inch. Of course, they are not “huddling” together; they are probably having a very good life together. Their flowers—hardly detectable until one is very near the plant—are well formed, their reddish seeds very conspicuous after a while.

These plants seem to delight in tiny cracks in the stony ground, sometimes much less than an inch wide. They join the lichen and “dominate” where no organic life is capable of having a good time. *Salix herbacea* seems to be “everywhere” at Tvergastein. We walk on them without the slightest regret. We make soup of them without thinking about extinction or interference with their habitat.

Whereas we human beings only gradually come to appreciate the mouse-ears, there are tiny creatures, a kind of wasp, that make red apple-like houses on the mouse-ears. Opening the walls of the “house,” we see a tiny white worm, which will probably die from exposure, but, as they are so tiny, we don’t care very much. At least we must be allowed to inspect one of the million interesting red dots on the leaves? Note our ineradicable inconsistency! When interested, I would still (even after writing about this “cruelty”) disturb such worms.

There are fraction-of-an-inch flowering plants of unsurpassed beauty, the *Gentiana nivalis*—a typically ethnocentric Nordic name: “Jesus blue-eyes.” In the most authoritative botanical reference work, that of Johannes Lid, the height of the flower is given as “7 cm,” nearly 3 inches! Most of the specimens in front of the cottage are less than 1 centimeter. The dark blue color is so intense, though, that on a windless sunny day in late July, they look *great* and clamoring for attention. Unfortunately, there are few such days, and on most days in the latter half of July, the flowers are closed. The plant is then difficult to find. The rest of the year—where is it? The plant lives only one year. In order not to become extinct at Tvergastein, *Gentiana nivalis* must somehow start a new generation in July next year (or the July after that, if next July is cold). Obviously, the existence of the plant at Tvergastein is precarious.

Other flowers are typical arctic plants, like *Dryas octopetala* (the “Reindeer rose”), which has big beautiful white flowers—often bigger than the rest of the plant. They have a good time where there is no soil to be seen, keeping together so that there may be several hundred within a single square meter. Still richer with white flowers: a square meter of well-shaped downy-haired *Cerastium alpinum*. There were more than 600 *Cerastiums* (3–4 inches tall) within one square meter at a spot near the famously windy northeast corner of the cottage—a sight of overwhelming richness!

Before I leave the “tiny” flowers, a particularly delicate, beautiful, modest one must be mentioned, the *Cassiope hypnoides*. Thousands of them create a carpet of green with white spots. The plant’s shape is misleading; it bends as if not being worthy of looking at us. It has fragility but no weakness, flowering even in dry summers in spite of its shallow roots, and growing where there is no soil to be seen. It does not creep but turns its stem straight out into the air—even as high as an inch.

After dwelling with some of the small flowers, when we first glance at a kind of dandelion (*Taraxacum alpinum* and similar arctic species) it looks not only crude, but downright indecent. It need not be higher than an inch, but it produces a flower 2 inches in circumference. To be just, the “flower” is really a basket of flowers, about a hundred of them. From its seeds each dangling from a parachute, we should all understand that the “flower” is a luxurious basket.

When one arrives at Tvergastein, more than a few easily changeable attitudes have to be more or less unconsciously modified. Everything is different from Ustaoset (8 kilometers away), and vastly different from the coast (50 kilometers to the west). Conversely, the adjustment again to the seacoast (not to mention the adjustment to the tropical rain forests of the south) is immense, if not terrifying. The differences scream at you. A rose is seen as a caricature of beauty. A tree is unnecessarily tall, grossly overdone, obstructing your alpine freedom of movement. While staying at Tvergastein, one’s attitudes change, and one’s personality changes, at least temporarily. After one week, there is a noticeable difference; three weeks—that is a very good stay. The last two weeks, the effects of mere contrast are largely gone. You are genuinely *there*. You are not seeing things through glasses from somewhere else. After a month, or two months, getting back down, and to town, is exciting but painful, harassing.

The distribution of snow is peculiar in windy arctic mountainous landscapes. If we are asked, “What is the snow depth at Tvergastein now?” there is no answer. There is no definite thickness, no small area with even distribution. The wind shapes the snow. After a strong west wind, there may be 2 meters of snow east of the east wall, but if “the same wind” reaches hurricane force, all the snow is carried away. There is no snow anywhere near the cottage. There is practically no snow *anywhere* at Tvergastein, even in January, but not far away there are usually 5–10 meters of snow in a wind-protected valley or gully. This makes skiing in August possible!

A highly romantic consequence of the uneven distribution of snow is that certain protruding cliffs with tiny cracks are normally snowless, and a “tiny” flower, which tolerates freezing cold, uses the cracks and occasional twenty-hour sunshine to bloom in the middle of May. It is the famous *Saxifraga oppositifolia*, so well known and cherished in the Arctic. It is the very first flower in spring, and its red color stands out vividly in a world of snow

and rock at Tvergastein. And so, you go skiing and, at the same time, enjoy the flowery season. *Farther down, at 1,200 meters or 1,000 meters, there are no flowers*; they appear much later (one reason: the soil is deeper and frost keeps it rock-hard).

In the precipices of Hallingskarvet, above Tvergastein, the *Saxifraga* also blooms in May because the sun's rays heat up the rocks. When the sun stands at 20° above the horizon, the plants on 70° cliffs (with a minimum of soil) enjoy rays coming in at a 90° angle; again, this is a story of the special quality of the arctic mountain climate. There are beautiful flowers combined with below-freezing temperatures, a hot sun warming cliffs, and deep crystalline new snow in protected areas. With this story about *Saxifraga oppositifolia*, a hero that may even have survived the Ice Age in Norway, we must close the chapter on flowering plants.

Animals

Many animals live at Tvergastein and belong there. The mountain mice deserve to be mentioned first. Soon after the cottage was built, some families established themselves under the cottage. Later, when the cottage was made larger, they were welcomed to the big western room. Sometimes a family makes a nest there, but mostly they just like to investigate everything in peace and at their leisure. The mice have access to other rooms only by special invitation. They are never invited to the kitchen.

When a human being enters their room, the mice hide for a couple of minutes, disturbed by the excessive noise, but then go on with their business. Sometimes there are things that the human occupiers of the place do not like them to nibble or eat. It is a joy to find out how to limit their access to these things.

When caught, the Tvergastein mice reveal an astonishing diversity of character. Some are very shy, others more easily pacified. One liked to rest on the downy slippers of the human occupier—something that made his moving around very awkward. Another was mainly interested in climbing and other sports; another was a great eater but did not show many other interests; still another was far more inquisitive and alert. Most tend to bite when handled, making neat small holes in the fingers. It is better not to “caress” them!

The mice are at home all the way to the top plateau of Hallingskarvet, that is, as high as there are shelves with vegetation. In wintertime, their nests under the snow keep them warm, or at least above freezing temperatures.

After the mice, the reindeer should be mentioned. From time to time, as long as there is snow around Tvergastein, herds of reindeer, 100–500 individuals, appear near the cottage. One evening the leaders decided they had been traveling enough and lay down between the cottage and the precipices. Most of the others leisurely lay down behind the leaders, but some restless youngsters kept on moving and lay down in front of the leaders. These found that they had to get up and place themselves ahead of the insubordinates. This happened again, but then the leaders did not bother. One should not take the youngsters too seriously.

Among the carnivores, the *Mustela erminea* is exceedingly popular but rarely seen. If seen, it tends to jump around from rock to rock with unbelievable elegance, speed, and tenacity. Exhibitionism? The tiny *Mustela nivalis* is just as unpopular as its relative is popular: it is capable of getting through the established official mice entrances into the cottage, and can also track down the mice under the cottage. Result: indiscriminate slaughter. Now there have been no mice for about three years. The place is not as it should be without mice children carefully inspecting the world outside the cottage every morning for several seconds and then running with lightning speed back to safety.

Sightings of the strong, sinister *Gulo gulo* (wolverine) are very rare, and bears have not been seen around Hallingskarvet in a century. Anyhow, it is too high for them to live here. Neither *Gulo gulo* nor bears belong here, but several big birds do—the *Haliaeetus albicilla* (ocean eagle) being the biggest and most regal. If its nest is above, or near, climbing routes behind the cottage, the male may treat the climber to an exquisite dive, keeping its wings close to its body and aiming at the intruder's head. It turns away just above the head at the first dive, then gets less interested and impressive, turning away much too soon. Once, the human occupier of Tvergastein felt the eagle had shouted "Abominable!" after a really bad dive. We do not approach their nests.

All in all, compared to mountains in milder climates, the richness and diversity of big animals—animals bigger than mice—is poor. This is

scarcely because of human interference, I suppose. Lots of ptarmigan are shot, but it is said, apparently with the support of some evidence, that this is not a main reason for their scarcity.

Genesis of a Place-Person

How did we, who belong to a place, get to belong there in spite of not being raised there, and in spite of not always having lived there? Here is one example of a genesis of place-person, reconstructed from evidence some of which has an inevitable character of being speculative.

My father, who died a year after I was born, had a small cottage above timberline (1,000 meters above sea level) at Ustaoset, a station on the railway between Oslo and Bergen. From the time I was a small boy, my mother, sister, and two brothers (ten and eleven years older than I) lived in the cottage in summertime and at Easter.

Largely rejecting my mother and sister as persons to imitate, I was happiest when my brothers played with me, sometimes in a rough way. When I was still only five or six years old, for example, they had great fun on a cold, windy day at Easter seeing whether the wind could physically push me up a small hill on skis. Their love was particularly manifest, or so I thought, when I was on the verge of crying because of their wild ways of playing. Perhaps I felt loved mainly through such play.

The steam engine of the train carrying us from below to above the timberline barely managed to do the job. The grade was steep. The vast world above the trees, and the process of getting through the timberline, made on me an impression so profound and deeply gratifying that it left an intense longing to get back to that world just as soon as I was again in my usual surroundings—a big house on a fairly large, partly forested property in the hilly suburbs of Oslo.

The dense landscape I could see from my window in Oslo was completely dominated by big dark spruce trees whose branches sorrowfully pointed slightly downward. When it was windy, these sinister trees rocked slowly back and forth murmuring what I would much later articulate as “Damned, damned, you are damned, damned.” The feeling of being imprisoned and damned was vivid. It reflected a not entirely happy life

situation that I need not discuss here. I mention the fateful trees blocking the view because the contrast with the free view above the timberline is obvious.

Whatever the influences, the experience of elevation (of moving from darkness to light, from being hemmed in to a life in a seemingly unlimited and friendly world) was so strong that I attached myself too much to this free-floating longing for the land beyond and above the forests. It promised to be a land of freedom beyond anything imaginable lower down. This is what I felt living at my parents' cottage.

Along the distant horizon toward the north lived the massive Hallingskarvet. It looked different every day while still retaining its supreme poise. Greeting it in the morning, during August, I might see that it had suddenly turned white from autumn snow, sometimes from the summit plateau down to 1,500 meters, sometimes all the way down to its foot at 1,200 meters. This is one of the grand characteristics of great mountains: their ability to turn brilliant white in the summer.

This faraway, supreme, powerful, serene, aloof, beautiful mountain gradually gained in status, revealing itself to me as the benevolent, protecting father or even divine being. I made Hallingskarvet into the symbol of everything good that was lacking in the world and in myself. When still a boy, I was able to reach its knees; later I roamed around on its shoulders and on the vast summit plateau with its surface of big greenish rocks, rounded through erosion.

It got to be a great dream to be able to stay *on* the mountain—not compelled to come down before dark or because of rain and thunderstorms. In 1937, when I was twenty-five years old, I chose the best possible place to build a cottage: not too high and difficult to reach for transporting materials over snow, but high enough on the flank of Hallingskarvet to feel that I was living on the mountain, and to have a superb view of a large part of Norway through the window.

A friend at Ustaoset who had a horse promised to transport enough materials for a very sturdy wooden cottage 8 × 5 meters in size. He indicated that fifteen trips would be needed, but it actually took sixty-two trips because of the difficult terrain and uneven snow. "Madness!" was the judgment of people at Ustaoset: the highest private cottage in northern Europe and in a climate unsuitable for "normal" cottage life.

Human Life at Tvergastein

After one has stayed there awhile, Tvergastein is experienced as teaming with life. In summer and early autumn, even the snow slopes are alive, turning reddish from the great populations of the green algae *Chlamydomonas nivalis* (the red pigment is the same as we know from salmon). After a while, we get a much more realistic view of the excellent living conditions at such arctic places. Even ecologists sometimes talk about extreme, destitute, difficult, marginal, poor, stressful, disadvantaged, harsh, or even hostile, conditions of life. This is improper, shameful language! Some species of flowers do not become as tall as lower down, but what has tallness got to do with well-being? Where the living beings use the excellent microclimates close to the soil, and behind rocks, why bother to climb high into the atmosphere? Most flowers at Tvergastein simply dislike rich soil. Some flourish where no soil is seen. The lichen and the mosses grow big and dominate even where snow covers the ground nine or ten months of the year. *Ranunculus glacialis* grow large and fat at such places, and nowhere else. The snow does not hurt things; it makes life sleep and wait. Admittedly, in winter there is not much life to be seen, but mammals, like the fox, know where to push away snow and find mice and lemmings. In short, there is nothing wrong about life in general at Tvergastein—but what about human beings?

The choice of the geographical place was based more or less on a set of requirements, but now the question was, What would the place require of me? What kind of lifestyle, activities, and ceremonies would be appropriate for this place? What would be a life worthy of Hallingskarvet and in solidarity with, and respect for, the other life-forms?

The difficulty and cost of transporting things by horse, together with obvious peculiarities of the place, clearly suggested a simple lifestyle with maximum self-reliance. Clumsy attempts on my part to produce some vegetables were complete failures. Of the native plants, only the mouse-ear was both eatable and present in sufficient quantities to serve the human occupier of the cottage. Hunting was possible farther down, but distasteful. In short, I had to rely on “importing” things, mostly by rucksack.

The question of heating the cottage was central, but the few junipers at 1,400–1,500 meters were small and rarely more than 5 inches high. Obvi-

ously, they should be protected, living precariously at the upper limits of their range. Again, the obvious solution was to "import." So there were two major unpleasant conclusions. There was no question of living on the land by the land.

Wind power, of course, was a possibility investigated early on. Inquiries suggested that because of the terrific downslope winds from the precipices of Hallingskarvet, the windmills would have to be specially built and of great bulk. I was sorry that this idea had to be reluctantly given up. Solar power was a possibility, but here also there were complications to overcome.

In 1937 a little firewood was transported by horse, and during the war, by rucksack. Then storms more or less regularly carried away major parts of the roof, despite increasing conservation measures, including cables to hold it down. This roof loss, however, resulted in a splendid byproduct: enough wood for austere use of firewood through the end of the twentieth century!

When I attempt to trace psychological and social determiners of my professional philosophy, some key terms stand out: unruffledness, equimindedness, austerity, distance, aloofness, nonviolence, diversity, egalitarianism. Most of them seemed to help in forming a lifestyle appropriate to the place.

Temperature: obviously very low inside the cottage. Below 9°C, however, everything gets wet, including paper, and the interesting fungi thrive *too well*. A marvelous effect of low indoor temperature for weeks or months is increased blood circulation near the surface of the skin, a feeling of physical activeness and fitness akin to that achieved after a hike. During short stays, though, it is not possible to adapt completely and so in 1960 came a revolution: acceptance of a rule not to let the indoor temperature drop below 14°. The temperature is much lower only in the morning, but on the rise.

Rooms heated: normally only one room 2.5 × 2.5 meters. In this room there is space enough for two, a little strenuous for a family life of three or four.

Food: simple, nourishing. Appetite inevitably strong.

Keeping warm: If one slowly gets uncomfortable, some strenuous exercise. Five minutes of very vigorous muscular movements is enough to heat the human body. A person occupies less than 1 percent of the volume of the room. Why heat more than 99 percent in order to heat that little volume?

Indoor occupations: research, reading, writing. Also listening to the wind and to other kinds of music. The usual housework is kept at a minimum.

Given that transporting food and other essentials is fairly complicated, the *reuse* concept is central. It is amusing to make extended and surprising use of everything brought up. Important result regarding quality of life: everything brought up is looked upon as having more value than before, an increasing feeling of quality and richness.

Water carried by hand from sources 200–300 meters away becomes more valuable. If snow is melted, it is of prime importance to remember that the calories needed to bring snow to the melting point—that is, a temperature increase from -1°C to $+1^{\circ}\text{C}$ —and the calories needed to bring water to the boiling point (92° at Tvergastein) are the same. For the last twenty years, I have found water under the deep snow but *above* the thick ice along the shore of Lake Tvergastein. Consequently, we carry water from there instead of melting snow. I am surprised that cottage people do not know about the presence of such water under deep snow along the shores of lakes.

When a person who has *grown up* in a city *grows into* a nonurbanized personal place, how does this affect his friends and relatives? Obviously, there are potential sources of tension and personal tragedies—or the extension of influence so that one's nearest also establish a relationship with the same place. For thirty years there were no serious problems of this kind associated with living at Tvergastein. My nearest felt positively about the area and its lifestyle. Then, with increasing mobility and other factors, steady life in good company at Tvergastein became less frequent. Evidently, the more peculiar and isolated a place, the less are the chances to establish satisfactory social relationships. It is impossible to deny that the climate of Tvergastein negatively affects the main outdoor activities, hiking, skiing, climbing. The high winds, more than the low temperatures, require toughness and hardiness. With increasing age, fewer people are able or willing to adapt. The eleventh big storm is not as romantic as the first ten.

What is remarkable about Tvergastein and similar places is their capacity to furnish the basis for a life of simplicity of means and richness of ends. The latter is dependent upon their development from being a place to being a *Place*. With increasing intensity of commitment, the Place will satisfy an increasing variety of needs and will allow for an increasing variety of cher-

ished goals to be reached. The little time and effort spent on the simple means frees time for dwelling in situations characterized by intrinsic values.

For most of us, though, the Personal Place cannot permanently satisfy every need. Perhaps the time spent there decreases over the years or is never more than a minor part of each year. This holds true for Tvergastein. Nonetheless, it is remarkable how a Place, even when it is uninhabited most of the year, largely determines one's attitudes, one's likes and dislikes, and one's general outlook. One is caught up in the Place, hopefully with good consequences, but inevitably causing some maladjustments in localities very different from the Place.

A Person-Place occasionally tyrannizes, imposes itself, gives orders. To disobey those "orders" creates a feeling of guilt or weakness of character. This is unavoidable. Phenomenologically speaking, the orders given by the Place and the orders given by oneself are inseparable. Only philosophies that impose a sharp subject-object dualism try to trace a border between the self and "its" geographical surroundings.

In psychology, the concept of superego is common and, using this terminology, one may say that the orders given by the Place are parts of the orders given by the superego. This conceptualization is not incompatible with the concept of Person-Place.

One example: *disposal of trash*. In the 1930s, given the geographical remoteness of Tvergastein from human habitation, together with the mild norms among people enjoying cottage life, solid trash was placed beyond a moderately large rock 150 meters from the cottage. For twenty years, the trash was the object of joyful study because of the enormous number of interesting changes of the flora within a meter of the trash. One plant, the *Cerastium alpinum*, benefited tremendously and multiplied and grew to inordinate size, at least 5 inches. Further, the delicate alpine and arctic grasses were largely suppressed by coarser, darker species. There were at least 100 clearly discernible changes within the radius of 1 meter. Outside this area, no change was to be seen.

Liquid trash was placed nearer the cottage in a crack between two smaller rocks. The effect was the same, but on a grander scale. There was a new world of excessive growth, luxurious but clearly foreign to the general character of the landscape.

There were problems, however. Big solid things fell to pieces—often

smashed when carried away by the wind—which necessitated some kind of burying ground. This was found in deep black holes between enormous boulders in a region without any life-forms except lichens.

Then came the 1960s with the environmental conflicts. Evidently, those engaged in the battle to clean up trash *everywhere* had to be very careful what they did themselves. So a disagreeable situation arose. More and more trash was carried down the mountain in rucksacks and sometimes transported all the way to Oslo.

The trash example illustrates some relations of importance:

1. “With increasing quantity, quantity changes into quality.” This Hegelian slogan is admirably illustrated. With increasing quantity of trash, it sooner or later degrades a wild place, a mountain, a landscape. Before this happens, when quantities are microscopic, the quality of a Place is not disturbed. In environmental conflicts, we must conserve our sense of proportion.
2. The defenders of wild nature against further encroachments by human beings tend to view any kind of trash (however diminutive in size or “innocent” in kind) as an evil. Of course, a piece of orange peel has a color and coarse fabric that cries out as a foreign element in the Tvergastein landscape, but there are limits beyond which it begins to be ridiculous to demand a “cleaning up of the trash.” In short, beware of fanaticism, beware of allowing admirable feelings to run amok. Personal relations with antagonists in environmental conflicts should not be threatened by fanatical demands.
3. “Absolute consistency is impossible.” Suppose we wholeheartedly accept the following. P_1 : Remove trash from wild places! P_2 : Tvergastein is a wild place. P_3 : x is a piece of trash. P_4 : x is at Tvergastein. C : Remove x !

What holds concerning the remove-the-trash norm holds as well for hundreds of other norms that are important in environmental conflicts. The formulations are short and, of course, vague and ambiguous to some extent. They have an indispensable function as slogans, but to use logic before they are made more precise is to ignore important aspects of slogans. Even after they have been reformulated, formal logic of consistency, in any strict

sense, is only moderately applicable (because of the nature of a normative system, which we cannot avoid. “All things hang together”—even in thinking!). It is not here a question of the validity of formal logic of consistency, but rather of the limitations of application in concrete situations.

Climbing

Classical European music consists of pieces of varying degrees of difficulty to perform. In concerts performers are supposed to follow the notes of the compositions, but sometimes they improvise. Improvisation by individual performers and small bands is also very popular today. There are professionals and there are amateurs, and the latter form the great majority of music lovers who do more than just listen to music. In dancing there are highly structured definite kinds of sequences of steps, but free improvisations are more popular than ever.

In climbing there are also definite routes of varying degrees of difficulty on the one hand, and the freedom to improvise on the other. Children climb stairs, chairs, and tables and advance to trees and boulders if any are available. No special equipment is used. Climbing on Hallingskarvet is more closely related to informal dancing, musical performances, or childish play than to climbing by established routes described in climbing guides. Let me be more specific about the Tvergastein variety, now a fifty-year tradition of climbing.

Hallingskarvet has more than 30 kilometers of precipices, most of them between 50 and 200 meters high and all of them very steep. The rock itself is hard (eruptive), but there are often loose stones and moss. This, in addition to its isolation from roads, makes it rarely visited by climbers, although the climbing, a 15-minute walk from Tvergastein cottage, is excellent. Many routes are described, *but never published*. Some are among the most difficult done in Norway at the time they were first climbed. Improvisation, however, is the rule.

Full security when climbing is axiomatic. There is no question of taking chances, not even the temptation to do so, but full security from serious injury is not the same as absolute security (the absence of even the *possibility* of serious injury). The same applies to skiing: neither Tvergastein climbing nor Tvergastein skiing is “dangerous.”

In Norway, climbing but not skiing is supposed to be dangerous. This is because skiing, especially the cross-country variety, is part of the general culture and the vast majority of skiers are not tempted to risk life or limbs (although sometimes limbs!). There is always a *possibility* of getting seriously hurt, but the joy of skiing is not seen as looking for extremes of physical challenge. Climbing, on the other hand, is done by a small minority and *looks* dangerous to most people. Whereas concern for safety when learning to ski is a subordinate theme, it is rather central in climbing. At Tvergastein, though, the result is the same as with skiing: full security.

It should be unnecessary to discuss the metaphysical background of mountain climbing.¹ It plays a role at Tvergastein, but so does the simple joy of rhythm and movement, of exciting challenges, and of the appreciation of lichens, rocks and stones, flowers, animals, the sky.

The high precipice, 15 minutes from the cottage, has fairly broad shelves in its lower part. The exuberance of the vegetation is astonishing. Flowers are much taller than at the cottage and even farther down. Some plants grow on the shelves that one ordinarily sees only much farther down (below 1,000 meters). The reason is largely unknown to the public but is very clear: the climate in the precipices of Hallingskarvet is generally much milder than below because there is less wind. The steepness also favorably affects this growth. If the shelf is angled at 30°, the rays of the sun strike the vegetation at about a 90° angle at 60° north latitude.

The nearness of the climbs, the informality, the fabulous view, the beautiful vegetation among the sheer rock formations, the milder climate—all make it natural to go climbing rather often. In summertime, one *may* go climbing several times during the day, being away each time for a couple of hours or less. (Daylight is from 3 A.M. to 10 P.M.)

In short, climbing is normally integrated into life at Tvergastein, but it is a sort of climbing that differs from the risk- and competition-colored image of climbing propagated by the mass media.

Tvergastein Amateur Research

It is difficult to separate unimportant biographical details from an adequate biographical description. The main thing is that a favored place relentlessly and remorselessly determines details of one's life. It may enrich

life, but it may also lead to a manifold of habits and ways of thinking that are peculiar and a source of irritation to anybody not adapted to that special life. I find that attachment to places should not be uncritically praised.

In contrast to some of my ecosophically inclined friends, I do not regard science, and above all, research, as incompatible with profound positive feelings toward nature. Tvergastein as “object” of botanical, zoological, mineralogical, meteorological, and other scientific research did not at all detract from the immediate experience of togetherness, of identification and appreciation. On the contrary. In the great naturalist tradition, exemplified by systematics (taxonomy) of butterflies, the motivation is not mainly cognitive, but conative. Feelings, just as much as abstract thinking, direct the research.

In Einstein’s scientific thinking, very different from that of a typical naturalist, the external world as a field of lifelong research was essentially nonpersonal. Its very impersonal character in part determined his strong motivation as a scientist:

It is quite clear to me that the religious paradise of youth, which was thus lost, was a first attempt to free myself from the chains of the “merely-personal,” from an existence which is dominated by wishes, hopes and primitive feelings.

Out yonder there was this huge world, which exists independently of us human beings and which stands before us like a great, eternal riddle, at least partially accessible to our inspection and thinking. The contemplation of this world beckoned like a liberation, and I soon noticed that many a man whom I had learned to esteem and to admire had found inner freedom and security in devoted occupation with it.

(Schilpp 1949: 5)

This way of liberation leads to abstract thinking and imagination of a special kind: “[A]ll our thinking is of this nature of a free play with concepts; the justification for this play lies in the measure of survey over the experience of the senses which we are able to achieve with its aid” (ibid.).

The way of liberation through “natural history” is different: very little abstract thinking, very much seeing, listening, hearing, touching. The secondary and especially the tertiary qualities are in focus, the world of concrete contents, not the primary as in physics.² There are worlds of minerals, rocks, rivers and tiny rivulets, plants, hardly visible or big (larger than 1 centimeter) animals, plant or animal societies, tiny or great ecosystems—all more or less easily available for enjoyment, study, and contemplation.

The meaningfulness inherent in even the tiniest living beings makes the amateur naturalist quiver with emotion. There is communication: the “things” express, talk, proclaim—without words. Within a few meters of the gnarled wooden walls of Tvergastein cottage are rich and diverse changing worlds big enough to be entirely unsurveyable.

When I was only fifteen years old, I met among the highest mountains of Norway, Jotunheimen, the paleontologist Johan Kiær. He was eager to talk about his exciting search for fossils in Svalbard (Spitsbergen). Clearly, he was engaged emotionally, describing how groups of animals trapped in ash from volcanic eruptions sought to be together in death. He was *yearning* for closer understanding of evolution. Two years later, in Norway’s biggest library, I found thick volumes with beautiful drawings of one-celled organisms. Evidently scientists were the only persons who really loved nature and life, with the smallest forms being taken care of with unbelievable accuracy! Poets, in contrast, appreciated only a small fraction of living beings. It took decades to rid myself of this illusion about scientists, and to understand that what I had admired was found among only a small minority of them.

At Tvergastein I could wholeheartedly engage in amateurish research. Collections of stones could be seen at the Tvergastein petrographical institute; a few quartz crystals and other items formed its mineralogical institute. Thanks to low indoor temperatures and poor ventilation, the institute of fungiology (mycology) had several branches. Temperatures in the kitchen in winter were below freezing, which resulted in interesting glacial formations down the walls. Glaciological institute! Hundreds of questions were formed; few were answered. This intensified wonder. This state of mind plus appreciation of the richness and diversity of phenomena within reach seems to be an essential trait of free research—however amateurish.

To develop a taste and appreciation for what there is enough of—this has always been a pillar of ecosophical education. With growing insight into the “limits of growth,” that is, growth of material production and interference, this educational motto becomes ever more important. With this introductory note I shall describe more closely a new branch of amateur research—Tvergastein chemistry.

With the kerosene lamp on my work table it was practicable to heat chemical solutions above the lamp and in clear view. The smooth waves of colors in never-repeated variety cannot but make a profound impression on

anyone willing to spend a little time in this occupation. In short, the most elementary chemical processes reveal a fascinating world. Tvergastein chemistry requires very few raw materials, very little heating. Boiling of more than a few seconds is prohibited because the room has little ventilation. Gases must be under strict control. So “the game” has rules that conform to strict ecosophical norms. There is one, and only one, *main* Tvergastein method of making exciting new chemical substances: mixing two substances that are soluble in water, with the more or less well founded hope that a certain new nonsoluble substance will appear. It is, however, somewhat difficult to obtain fairly pure substances straight from nature. The valuable self-reliance of the Tvergastein institute of chemistry was severely undercut after a talk with the president of Oslo University, who happens to be a chemist. Hearing my concern about self-made, very impure chemicals at Tvergastein, he naturally was delighted to help create the new branch of (amateur) chemistry by offering me free access to the resources of pure chemicals at his own institute. A helping hand from one institute to another!

Compromise and inconsistency! Consider, for example, the 25 grams of bismuth trichloride I acquired—enough for twenty-five experiments at the level of Tvergastein ecological resource utilization, but presumably made by one of the worst gigantic chemical-factory polluters along the Rhine. I supported the poisoning of this magnificent river and added a little to the North Sea! Worse still, the stuff had from an amateur point of view a ridiculously high level of purity. The impurity from arsenic, for example, was *guaranteed* to be less than one in a million. This implies that a great deal of energy from coal or gas had been used in a series of wasteful operations aimed at cleaning the substance of any kind of impurities whatsoever. Anyhow, such chemicals are far removed from nature: from cliffs to stones, from stones to minerals, from minerals to abstracts some of which are not found in free nature at all. There is nothing “wrong” about such new substances, but we may note the distance of their study from that of a consistent naturalist.

Whatever the inconsistencies, the Tvergastein chemistry is an example of something of central importance in rich industrial societies: to assist youth in the warm *appreciation* and understanding of basic natural processes such as beautiful solutions, the miraculous transformation of one substance

into others, the re-creation of thousands of beautiful colors and dyes. Those who are offered the opportunity for such experiences are changed, their life quality enhanced. They can live with less dependence on what there is *not* enough of for all.

Unfortunately, the large-scale realization of ecoeducation requires a new politics, a green politics, a politics that does not systematically favor people who concentrate mainly on getting more of what there is not enough of.

Taking naturalist science and research, professional or amateur, as the paradigm of science and research, ecosophies may without inconsistency hail these human undertakings. It is counterproductive, I think, to make *science* and *research* into negative terms, dyslogisms. There are from the amateur naturalist-researcher's point of view immense opportunities at Tvergastein, as at other places. Research fits in with the conception of a Personal Place.

What can we learn from each other? Can tragic developments be avoided? The classic case of belonging to a place is that of being born and raised somewhere—somewhere just in the geographical sense—and then the place develops into the Place. When the place is physically destroyed or unfit for living because of other factors, can a different place develop into the Place? Certainly it can, and that is what happened for me with the Tvergastein area. The same will happen to many people in the future—they experience a longing and a satisfaction that elicits such utterances as “Here I belong!” It may even happen that there are two places to which we are drawn, and a conscious choice is possible. In such cases, certainly one thing can be inferred on the basis of my experience at Tvergastein: choose what has a reasonable chance of also being satisfactory to a life companion and to close friends. Don't choose the place that is so particular that that chance is small. Furthermore, don't choose the place where there is little chance that you yourself will be capable of mastering it when you reach an advanced age. Then it is not a place where you can live and die. Tvergastein is extreme in many ways and unfit for many purposes. The development of a hut and life there could only be more or less tragic, but even so it is difficult for those of us who have a place where we feel we belong not to be glad and grateful to have one. Why so? That is difficult to say.

Modesty and the Conquest of Mountains

There are many ways of *experiencing* mountains. I would rather assert, however, that mountains have innumerable aspects or, even better, that the term *mountain* may be used to designate vastly different entities. What I describe in what follows are *mountains*. They are connected with what other people call mountains through some sort of interpersonal, social structure, a marvelous common frame of reference. Thus I may *locate* the mountains I speak about, may give details about the minerals of which they are said to consist, may even discuss their age—all this without getting into trouble with identification. The common frame of reference, however, is *not* the mountains themselves—not the mountains *I know*. The motive here for trying to describe mountains as I know them is not the rather indifferent detail that *I* know them, but that many others know them the same way but do not always or consistently act upon their knowledge.

Now what *are* they?

The words I use must come as an anticlimax, perhaps. They are very common words, they are crude, and only the reader's intense willingness to go along with me can help me convey what I know.

Mountains are big, very big, but they are also great. Very great. They have dignity and other aspects of greatness.

They are solid, stable, unmoving. A Sanskrit word for them is *a-ga*, that which does not go. Curiously enough, though, there are lots of move-

This article was reprinted with permission from *Earth First! Journal* (November 1, 1990): 30. It first appeared in *The Mountain Spirit*, edited by Michael C. Tobias and Harold Drasdo (New York: Overlook Press, 1979), 13–16.

ments in them. Thus, a ridge is sometimes ascending; there is a strong upward movement, perhaps broken with spires and towers but resuming the upward trend, toward the sky or even toward heaven. The ridge or contour not only has movement up and up, but may point upward, may invite elevation.

When we are climbing a mountain, it may witness our behavior with a somewhat remote or mild benevolence. The mountain never fights against us, and it will hold back avalanches as long as it can, but sometimes human stupidity and hubris and a lack of intimate feeling for the environment result in human catastrophes—that is, catastrophes for mothers, fathers, wives, children, and friends. (The climbers themselves die in a way that I cannot class as catastrophic.)

So much for mountain appreciation and worship, or the cult of mountains. Many people may have similar sentiments but perhaps will not feel the same way about mountain people. On the other hand, there are many who basically feel the same way about mountain people but have no tendency toward mountain worship. This may perhaps be most simply explained through a short account of my own first encounter with mountain people.

When I was fifteen years old, I managed through sheer persistence of appeals to travel alone in early June to the highest mountain region of Norway—Jotunheimen. At the foot of the mountain, I was stopped by deep rotten snow and could find nowhere to sleep. Eventually, I came across a very old man who was engaged in digging away the snow surrounding and in part covering a closed cottage belonging to an association for mountaineering and tourism. We stayed together for a week in a tiny nearby hut. So far as I can remember, we ate only one dish: oatmeal porridge with dry bread. The porridge had been stored in the snow from the previous autumn—that is what I thought the old man said. Later, I came to doubt it, to believe that I had misunderstood him. The porridge was served cold, and if any tiny bit was left over on my plate, he would eat it. In the evenings he talked incidentally about mountains, about reindeer, about hunting and other occupations in the highest regions. Mostly, though, he played the violin. It was part of the local culture to mark the rhythm with the feet, and he would not give up trying to make me capable of joining

him in this. How difficult it was! The old man's rhythms seemed more complex than anything I had ever heard.

The effect of this week, along with similar experiences later, established my conviction of an inner relation between mountains and mountain people: a certain greatness, a cleanness, a concentration on what is essential, a self-sufficiency; and consequently a disregard of luxury, of complicated means of all kinds. From the outside, the mountain way of life seemed spartan, rough, and rigid, but the playing of the violin and the obvious fondness for all things above the timberline, living or "dead," bore witness to a rich, sensual attachment to life, a deep pleasure in what can be experienced with wide-open eyes and mind.

It is unnecessary to add that local mountain cultures are incompatible with those that are cosmopolitan and urban. The intrusion of new values and lifestyles rapidly undermines the alpine culture. In the Himalayas, individual Sherpas and their families have enhanced their wealth and status through expeditions, but their communities and culture have suffered unduly. Their great festivals and religious life are fading. There is, however, some cult of mountains still remaining. Thus, Tserigma (Gauri Sankar) is still worshiped. When we suggested to the Sherpas of Beding, beneath Tserigma, that they might like to have its fabulous peaks protected from "conquests" and big expeditions, they responded with enthusiasm. A special meeting was announced, and the families voted unanimously to ask the central authorities in Kathmandu to refuse permission for climbing expeditions to Tserigma. Gönden, the leader of Beding, walked all the way to Katmandu to contact the administration.

In Nepal, though, as in so many other countries far away, local communities have little chance of being heard. The Sherpas would not mind "losing" the money they could earn from expeditions to Tserigma, but central administrations do not think the same way. As is to be expected, the great alpine clubs the world over have largely ignored Gönden's initiative. Perhaps the organizers of expeditions tend to think that mountains, being great stone heaps, need no "protection" and that the "enlightened" Sherpas certainly would *tolerate* their climbing friends going anywhere. They are in part right, but I do not think we should in this case make use of their tolerance.

THE SIGNIFICANCE OF PLACE: AT HOME IN THE MOUNTAINS

These reflections are supposed to serve the idea of modesty—modesty in human relationships with mountains and with mountain people. As I see it, modesty is of little value if it is not a natural consequence of much deeper feelings and, even more important in our special context, a consequence of a way of understanding ourselves as part of nature in a wide sense of the term. This way is such that the smaller we come to feel ourselves compared with the mountain, the nearer we come to participating in its greatness. I do not know why this is so.

Some Ethical Considerations with a View to Mountaineering in Norway

Norway is one of the few areas of Europe in which unspoiled mountain regions may still be found. I feel that climbing in such areas should be regarded as a privilege. When industry and organized “welfare tourism” are let loose on nature, visitors to the areas touched will be robbed of the special delights that only an original wilderness can offer. Those who are privileged to experience the unique qualities of a nature still bearing no marks of human activity are given a special obligation—an obligation to those coming after them (who may be themselves on the next tour). If they feel this privilege, their conduct should be colored accordingly.

I may be accused of regarding the “plain” rock masses of my country as precious gold. The accusation will be accepted. It is a view that for years some of us have been trying to impress on our politicians, power engineers, and promoters of commercial tourism as something other than absurd or hysterical. Most people, if asked, would even deny that gold—or electricity, or cars—were values *in themselves* to them, *in contrast to* the range of deep and personal experiences a visit to a wilderness area may call forth.

It is not a good thing in itself that a peak is climbed—rather the opposite, since the mountains belong to the last remnants of nature not completely subjugated by man through exploration, charting, and utilization. Unknown territory is a source of inspiration that I would be sorry to see completely lost.

To protect mountain areas, then, is part of general wilderness preservation. From this follow such norms for the climber as that he should limit as

This article was translated and edited from an original draft by Sigmund Kvaløy. Reprinted with permission from *The Alpine Journal* (London: The Alpine Club) (1969): 230–33.

much as possible the amount of gear and rubbish left behind during climbs and while camping, and even have it in his mind to minimize scars made on rock surfaces ("Avoid signs revealing your visit!" may serve as a slogan here). Speaking generally, we could say that his actions should be as little noticeable as possible. This formulation is here made to cover, in addition, the related ideal of minimizing the use of "artificial aid" (without loss of safety) at any moment of the climb ("Pursue simplicity of method!"), as well as the ideal of avoiding all unnecessary (unmusical!) sound while in the mountains ("Seek noiseless conduct!").

Behavior observant of wilderness preservation may profitably be viewed as aiming at protecting for the individual (the next visitor) his possibilities for freedom, solitude, and concentration on nature in its original form.

From this perspective, the value of guides and publicity for new areas is limited. The delights in finding the way by oneself should not be destroyed through an unlimited and indiscriminate publication of detailed itinerary and communications information. Climbing guides circulated among those who already take a special interest in the sport and the areas described are an entirely different matter. To help *one* person get a full and personal experience of unspoiled mountain nature is more important than to open up new areas to a hundred looking only for new excitements and stronger spice, or a new spectacular collection for their photo albums, or a boost in esteem among their fellow men—in short, people who lack the ability to linger, to experience their visit as a value in itself.

Let us at least write and publish our guides with this in mind. What we write, how we publish, are factors open to great variation even if the subject on the surface appears to be the same. The result is dependent on our different goals. Those goals, and the consequences of what we do, should be made as clear as possible.

Those whose intention it is to do climbs of value measured by the ideal standards of the sport, should feel a special responsibility to the sport's traditions and its future. The way guides are published is within this field of responsibility. A further point to remember is that delight in experiencing nature and in its exploration—traditionally valued highly by mountaineers—should entail an attitude of keeping mountaineering from being a competitive sport. This goes for competition among individuals as well as

among nations. On a practical level, the impossibility of comparing achievements, on account of differences in weather conditions and in the use of technical aids, contributes to holding the competitive element in check.

All the same, mountain climbing challenges one's physical condition and requires earnestness of purpose and perseverance, of the individual and the team. It is natural that the individual seeks to improve his physical achievements. Instead of competing with others, one may say that the climber competes with himself, and the individual rope team with its earlier achievements. Further, since an achievement in climbing has so many dimensions, and many of these are unsuitable for objective measuring, only the individual or the team will be in a position to judge what is progress and what is retrogression.

I have mentioned responsibility in the area of publicity. Besides writing guides, climbers often tell stories of particular eventful climbs, since what a certain person experienced during an ascent is often of interest to others. It should be kept in mind, however, that neither the sport as it exists today nor the recruitment of new climbers in the future is well served by distorted renderings of such experiences given for publicity effect or in the interest of commercial tourism. Because climbing teams often get into great financial difficulties in planning arduous and lengthy ascents, we have often tolerated descriptions and publicity that are unworthy, measured by the ideals of the sport, and that are also at direct variance with the cause of wilderness preservation. As for Norway, however, we are in the lucky position such that ventures leading to economic difficulties of this kind are among the rare exceptions. One always has the option of borrowing equipment from the various mountaineering organizations.

A major part of Norway consists of precipices and ridges. So far, only a very small part of the population has realized how rich a source of physical and spiritual joy and rejuvenation is represented here. In the future thousands more may be introduced to the sport and, through that, to moments of a fuller inner life in *co*-action with nature. This development will be greatly retarded if what is said and done under the eyes of the public is not guided by responsibility toward the sport, the cause of nature preservation, and the individual. Alternatively, we may see an unhealthy concentration on goals consisting of doing difficult and risky things, keeping away those

who have a genuine love for the high country but no motivation for cragsmanship of the most extreme sort. There is, however, nothing in the nature of mountaineering prohibitive to its development along lines similar to those of the sport of skiing. By choosing equipment carefully and by observing a slow progression in the degree of difficulty, one need not encounter any of the dangers that would make it correct to label climbing a very dangerous sport. Cross-country ski touring is comparable to touring on foot in the mountains: no special effort is made either to avoid or to seek out precipices or sharp ridges, and climbing and glacier crossing at intervals are welcomed as part of the total experience.

Through publicity focusing on the objective and impersonal marks of achievements, that is, reports of particular peaks that have been climbed or routes that have been mastered, those who take up climbing are brought to overlook the most important factor in choosing climbs of a particular difficulty: one's own stamina, form, and experience from earlier tours, the stamina, form, and experience of one's companions, and the climatic conditions at the time the tour is to be undertaken. Efforts and performances and the quality level of the sport in general are intimately connected to a correct choice here. Only through a well-advised choice in these respects will there be a basis for satisfying what should be considered one of the first norms of climbing if responsibility is felt to the ethical standard and future development of the sport: that a margin of safety be kept up for the duration of any type of climb.

Well, I am sorry to be so "prophetic" in tone here. Dishing out dos and don'ts is a nuisance. In earlier climbing history, a stern-faced erection of guideposts would have been ill advised, but as wilderness areas diminish, the crowds gather, and as the publicity angle gains in accepted importance, something of this nature seems easier to defend. My concern, after all, is that future generations will be given a chance to have experiences of the kind that have meant much to me during years of nosing around on the more jagged features of Norway's rocky faces.

The South Wall of Tirich Mir East

Tirich Mir, in northern Pakistan, is the name not only of a mountain with two main peaks, but also of a mountain massif. The massif resembles an octopus, the head of which comprises the twin peaks of 25,263 and 25,237 feet, while the tapering tentacles are mountain ridges with peaks of 24,564, 24,076, 23,150, and 22,237 feet and down to 15,000 feet. Like the tentacles of an octopus, these ridges curve from side to side, but unlike tentacles, they divide into lateral ridges. From the town of Chitral three main ridges are visible, but naturally only the very highest: the South Ridge (more correctly, the Southwest Ridge), which we reached at a height of 23,000 feet in 1950 and followed to the summit at 25,263 feet; the Southeast Ridge, which I visited in 1949 at 20,000 feet; and the East Ridge, so far unvisited. The last-named ridge runs in an unbroken line from approximately 18,000 feet to the top, hence the impressive, although not very steep, appearance of the east profile. If we include the long ridges leading up to the twin summits, the Tirich Mir Massif covers about one hundred square miles. Apart from the two highest peaks, the area includes about fifteen other peaks of more than 20,000 feet.¹

The second-highest peak in the Tirich Mir Massif, 25,237 feet, unclimbed until 1964 and dazzlingly beautiful, towers up, as seen from the south, immediately above the South Barum Glacier, its distinctive feature being a tremendous wall of rock reaching up to the very summit. There are also ice fields in the wall, but more rock than usual at that height. From about 17,200 feet it rises sheer to the southeast summit ridge. The wall is

This article was reprinted with permission from *Himalayan Journal*, no. 26 (1965): 97–106.

more than a mile wide and 8,000 feet high. In short, it is an unusually large rock precipice, even by Himalayan standards.

In 1950 I reached the highest summit of Tirich Mir. Why did I set out for the neighboring summit, which is 26 feet lower, in 1964? Actually, the aim of the 1964 expedition was not to reach a summit. The aim was to explore the possibility of continuous, sustained technical rock climbs at very high altitudes.

Long ribs were rejected because of excessive wind. Rock walls with hanging glaciers above, sending enormous ice boulders down at irregular intervals, were out of the question. After inspecting hundreds of pictures of walls, I decided that, after all, the South Wall of Tirich Mir East was the most suitable. Thus, the good old friend of Norwegian expeditions, Tirich Mir, was again selected as the object of athletics and devotion.²

Owing to the smoothness and high angle of the wall, there is no hanging glacier—actually no glacier at all—on the south face of Tirich East. On the other hand, the angle of ice fields makes it difficult for new snow to keep quiet. During heavy snowfall, small avalanches will sweep down practically everywhere.

In 1950 we tried out the easiest route on Tirich Mir; in 1964 we looked for the most difficult. There was, however, also a difference of expedition philosophy from the expeditions of 1949 (the reconnaissance) and 1950: I was determined to judge the expedition a failure if the members were not happy practically all the time, and if the exertions were not within the margin of that of competitive athletic games. That is, one could “give one’s all,” but without imperiling values such as life (including toes) and aesthetic enjoyment.³

The adventure should be such that there would be no alien pressures (naturalism, heroism, romanticization of death, dread of not reaching the summit, and so on). In short, what ultimately mattered should be the way of life during the expedition, not an abstract concept, such as physical presence at a definite point—that of 25,237 feet in our case.

Whether an easygoing expedition, with unfailing high spirits and peace of mind, can be carried out or not depends essentially on the team. I was lucky to have a team ideally suited for the endeavor: three young civil engineers, Anders Opdal (age 26), Ralph Höibakk (26), and Per Vigerust (31), with very impressive and convincing lists of climbs in the Alps and in Nor-

way. Number four was a man with indispensable qualities to us: Kjell Friis Baastad (48), a doctor, accomplished climber, especially on ice, professional iglooist, and equipment specialist. These are surface qualifications. Picked out to travel halfway around the world and climb one of the giants among mountains, they were overmotivated—from *the* moment the mountains could be seen far above the horizon of minor peaks, they were eager to exert themselves beyond sensible considerations or the bare necessities to keep the project moving.

The “duty to be happy” seemed rather strange and paradoxical to the young expedition members. Their exuberant minds did, however, possess qualities that made the satisfaction of the severe norm possible and even likely. I shall limit myself to mentioning only one of the ways we used to live up to the norm. During expeditions in the Himalayas there is a constant exhibition of extreme manliness without the extra impetus. Per Vigerust acted in a “soft” way and gave vent to all kinds of anxieties (without *ever* really undermining the necessary efforts): “This tower looks ugly and may overturn at any time. And I am tired and hungry! Enough for today, let us have a grand meal!” When he said something like that, we could turn on him furiously, insisting that no tower could be more beautiful, that it is grand to take certain risks, that we had never felt less tired and more uninterested in food. We might even add that just for the sake of good comradeship we would give in and take the big meal. Thus, we were led to feel how strong and daring we were, instead of taking it for granted and risking demoralizing frustrations. Owing to the exceptional resourcefulness of the actors, the drama of contrasting comfortable safety and manly endurance went on day after day.

The team left Norway early in May and arrived at the small airport at Chitral town on May 16. We were greeted most touchingly by old friends from 1949 and 1950.

Abdul Karim, our youngest porter in 1950—he was then only 17 years old—undertook to administer our travel to the mountain from Chitral town; our wise old friend Government Treasurer Wazir Ali Shah helped us in innumerable ways; and Prince Burhanuddin entertained us in his royal, cordial way.

Base Camp was placed at Shokor Shal (“sugar shed”) at 10,000 feet, just

below the tip of South Barum Glacier. All through July we helped the porters carry equipment and provisions to Advance Base, 17,200 feet, directly under the Southeast Ridge, and scaled seven peaks surrounding South Barum Glacier. There are still some left over! Our aim was to obtain maximum physical fitness, so that we could hope to negotiate the wall without reaching complete exhaustion. It was evident that the climbing would be of a technical kind that would demand perfect balance—also on the way down—so it was a “duty” to store up reserves of strength.

The most beautiful peak we climbed during our training period we named Owir VII (about 18,700 feet), or better, Nidaros Cathedral, after Norway’s most famous cathedral. Ralph and Anders climbed it by moonlight and discovered that what seemed to be a summit snow cone was mainly a cone of steely-hard blue ice with a sprinkling of sugar snow.

The peaks south of South Barum Glacier we named Owir I–IX. Owir I has an old name, Ausher (17,333 feet), and had been climbed before. The peaks and spires along the ridge north of the glacier we named Utshanzo I–V. We did not get beyond the first one in this rocky chain!

Skiing was excellent and our young, very sports-minded liaison officer, Lieutenant Sabir Kamal, was introduced to the enjoyments of downhill racing. We were lucky to have in our company this faithful, well-balanced, kind companion, who was looked up to and respected also by all our Chitral porters, including our dangerously intelligent and strong cook, Mohammed Hussein.

Our belief that we could successfully climb the South Wall was based on three postulates: (1) All through July there would be only scant snowfall on the wall. Our fingers would rest on dry holds. (2) The lower half of the wall, from 17,200 to 21,000 feet, would be less steep than the upper, permitting the climbers to bring six hundred pounds of equipment and food halfway in a week’s climb. (3) The “explosion avalanches” would not reach the gigantic scale of 1950, but be of the more moderate 1949 volume and speed. We knew very well that some or all of these postulates might turn out to be false, making the plan impossible to carry out or too risky (that is, beyond the range of “good sport”).

The first postulate was undermined by Abdul Karim, who could tell us that in 1962 an American expedition led by Professor Knauth had been

forced to turn back because of great snowfall lasting a whole week in the middle of July. They had tried a second ascension of Tirich Mir West along the route we had used in 1950. Abdul Karim could point out the highest camp (at about 20,500 feet) where he had stayed several nights alone with his sahib. The porters could also point out the spot from which Fritz Stammberger, who tried for the summit alone, was helped down. It is quite clear that the East Ridge *may* yield to a solitary well-experienced climber, but the ridge is long and requires many well-equipped camps. To have reached 21,000 feet on the South Ridge is quite a feat, but using skis—as Stammberger apparently was trying to do—on the ridge (without crampons underneath!) seems out of the question or at least pointless.

The postulate about excellent weather in July rested on “all available data,” but, alas, little had been available even in the old reports of the Indian Survey. One week of snow was enough to turn the odds against us.

To keep our nerves cool and to prevent us from starting the climb of the South Wall before the July sun had made snow on holds and in cracks evaporate, all through June we observed a “no entrance” order: we did not permit ourselves to go near the wall or touch it.

I broke this (self-made) order on June 30 when I was alone in Advance Base Camp, tested the second postulate, and learned that it was false. The lower half of the wall proved very steep indeed, starting with excellent hard, smooth rock. One might for the sake of beauty and elegance start to climb straight up the rocks—but a less time-consuming transport route had to be found.

On July 2—alone again—I made a discovery very much relevant to postulate 3, until then verified most encouragingly.

On the morning of July 2, I discovered a thin layer of chalk-white new snow all over the glacier—a sure sign that a big explosion avalanche had occurred. A few words must be said about some of the special features of Tirich Mir that make it necessary to keep a considerable distance from the lower half of a line drawn from the Col between the West and East summits.

Snow from fields just west of the wall, many square miles in size, tends to avalanche into a tremendous trough, over the brink of a great hanging glacier and farther down between windswept cliffs. Long before reaching the surface of South Barum Glacier, the advancing masses become airborne and turn into a snowstorm radiation 360° from a center. Exact measure-

ments in the Alps of such storms give the values 70–100 kilometers per hour as the speed of turbulent snow particles inside the widening ball of the storm. People are killed by the air pressure at an appreciable distance from the center of the “explosion.” In 1950 tremendous avalanches of this kind flattened our tents, which were placed far away from the explosion center.

The thin layer of powdery snow that had settled over the area on July 2 suggested that the “season” of big explosion avalanches had started. This meant that postulate 3 might turn out to be a half-truth.

The conclusion was inevitable. There could be no more lighthearted mountaineering on surrounding peaks. It was time for an immediate assault on the wall itself.

From July 7 to July 10 we managed to carry about five hundred pounds up the “Diagonal,” a steeply rising system of ledges and cracks, partly packed with snow, to the magnificent site of a first camp on the wall, at about 19,600 feet. It was sheltered by overhanging rock, carved out of the snow, and just wide enough so that small tents might be placed in a row. With fixed ropes all the way, we thought it justifiable to have Abdul Karim and another very good, cheerful porter, Safdul Karim, with us.

Three times during our struggles under heavy loads on the Diagonal, explosion avalanches reached us. Secured with our ice axes, we flattened ourselves on the snow. Mouth and nose were covered with our mittens to prevent ice dust from penetrating the lungs. We waited in the screaming inferno, ice- and snow-crystals clogging us down. The whole thing lasted only a few seconds, and then it was over. Shouted questions and answers soon established that no one was hurt. Only a few pairs of sunglasses were blown away. The shock waves did not reach as far as the tents. Clearly, the “explosion season” was under way, but we concluded that the dimensions of the avalanches were still not such that further advance was inadvisable.

After some days of reorganization and recuperation, we were on July 15 ready to start on the next stage of the South Wall, from Camp 5 up to the “Integral,” an S-shaped snow formation where we considered Camp 6 should be placed. Meanwhile, Camp 5 was now complete, with two two-man tents and ample provisions. Climbing above Camp 5 was magnificent, mostly of degree III or IV, but with two five-degree chimneys. Ropes were

fixed for about three hundred yards above the camp. This was exactly the kind of work we had asked for: real rock climbing on excellent hard rock.

Alas, the sky clouded over and large snowflakes began to fall, covering everything—our equipment, our tents, ourselves. As though in response to a shouted order, a new world now sprang into life: avalanches of dry snow thundered or rushed past us in every direction. Thick clouds of dust enveloped us, rendering visibility still worse. Only ten yards away a *continuous* river of dry snow flowed down. It was like the sound of an endless freight train rumbling by.

Retreat from above Camp 5 was a little too exciting. Kjell and Ralph played a sort of hide-and-seek with the avalanches. After a while they realized that certain types of small avalanches could be expected at regular intervals. Now and again they stood still, waiting till “the next avalanches” had passed. This worked excellently, but afterward they made no bones about the nerve-racking moments they had endured.

Just before they arrived, Kjell, who had moved up diagonally across a ravine, saw a new snow avalanche heading straight for them. He let out a warning yell, and Ralph, who was at the bottom of the ravine, flattened himself against the side. The snow poured over him, but he managed to hang on, and they were able to continue the last few yards down to the tents of Camp 5.

Next day we made a general retreat. There was plenty of food in Camp 5, but the main point was to ensure that no one stayed on in Camp 5, merely consuming its stocks of food needlessly. We just had to get down to Advance Base, Camp 4.

Finally, on July 20, the fifth consecutive day of snow, the overcast split up. Climbing was impossible, however, until the snow had settled a little and most of it had slithered off.

We knew from experience that the South Wall lacks the kind of system of ribs and corners that makes avalanches select definite courses, which climbers can then avoid during heavy snowfalls. A second fall of snow would have far worse consequences than the five-day snowfall we had just witnessed, as it would surprise us while we were making our assault on the summit, thousands of feet above sheltered camps. Would the only safe solution be to leave the South Wall, carry the most vital of our four hundred pounds of equipment from Camp 5, and set about establishing camps on

the Southeast Ridge as an alternative? Certainly, this choice would not provide us with an easy access to the top, in fact, the route had some steep rock faces between 20,000 and 21,300 feet. Higher up, on the other hand, it looked as if we should literally have to wade in snow.

There seemed to be an obvious either-or: to continue scaling the South Wall despite the danger, or to accept the much longer, but probably comparatively safe, climb along the Southeast Ridge.

After all the work on the South Wall, it was terribly tempting to continue here. It was obvious that this was the more popular alternative with all members of the party. Would it be possible to find a plan, a method of carrying it out, that would be defensible? I, who to a certain extent had the greatest responsibility, found it difficult to reach a decision, but after long and careful deliberation I decided that if an assault on the summit were undertaken in such a manner that the smallest possible number of climbers remained, for as short a time as possible, on the stretches where avalanching was likely to occur, then it could be defended. Briefly stated, this would involve every member of the party starting from Camp 4 (17,200 feet), two without any loads, and the other three with the maximum possible loads. (Sabir Kamal, Abdul, and Safdul could not be included.) At 21,000 feet (Camp 6) the two who had climbed without loads and so had energy to spare would spend the night, leave a depot behind, and then continue on up, heavily laden, the next day. The other three would simply deposit their loads in Camp 6 and then descend as quickly as possible to the rest station, where they would be ready to come to the assistance of the two making the assault, should misfortune befall them.

Even though everyone was considered capable of making the final assault, the choice was not difficult. During the last few weeks Anders and Ralph had shown just that extra degree of enthusiasm, and both had made themselves go through special training to perfect a technique for advancing *as quickly as possible*. Whatever might be said to advance the claims of the others, the conclusion was never in doubt: Anders and Ralph were to constitute the "top team," and the other three would act as their slaves.

The five days of blitz attack—three days to the summit from Advance Base, two days down—were without a dull moment.

The first day we reestablished Camp 5. Masses of snow had buried it just as surely as Pompeii was buried by the disastrous eruption of Vesuvius.

The “summit princes” neither carried anything nor exhausted themselves at the task of working up the path through the sea of powdery snow.

The second day started at 4 A.M., when I carried additional rope from Advance Base to Camp 5. The next stage started at 9 A.M., when we all climbed from Camp 5 to the Integral, Camp 6, where the summit team was placed in a tent and the rest of us went down to Camp 5, arriving late at night. This day’s effort resulted in a well-stocked camp at 21,000 feet, harboring two men who so far during “the blitz” had no days of extreme exertion behind them.

The three of us who were acting as slaves were happy, but exhausted from tremendous rucksacks with food and clothing for the “privileged.” We had done our indispensable share.

On the third day, the summit team worked their way up ice fields. The ice being very hard, they discovered that ordinary belaying would make it impossible to reach 23,000 feet in less than two days. They, therefore, advanced unroped, ascending for the most part through kicking the front pair of the crampon spikes into the ice, but sometimes “walking French” to relieve the strain on the leg muscles. At 23,000 feet they camped, “weighted down with a sense of paralyzing weariness” according to their report.

Considering the requirements of both happiness and balance, this state of mind and body meant that our rules had been broken, but the report also reveals their tremendous consumption of food of all sorts. My conclusion is that they, after all, could not have been too tired.

They had brought with them fifty pounds each (plus extra rope), which should make it possible for them to stay covered and to eat for ten days in the event of a prolonged snowstorm. The fact that they managed this load well somewhat balances the negative impression that their unropedness must leave in our mind.

On the fourth day, because of the time factor, they continued along ice grooves instead of switching to rock climbing. Five days on the wall had been put down as a maximum stay considering the threat of more snowfalls. This consideration then, in the end, precluded the realization of our main mountaineering aim: a more or less continuous rock climb from 17,200 to 25,200 feet.

Having “gone all out,” the summit team arrived at the Southeast Ridge at 2 P.M., and at the summit itself at 3 P.M. The ridge proved in part

to be extremely narrow, but they encountered no technical difficulties. At 7 P.M. they were back in their well-stocked camp at 23,000 feet, firing green rockets, one of which was seen among the clouds by our two valiant porters at the foot of the wall.

Having observed the summit team descend, we who had remained below at once started stocking a depot of food and ropes on the Southeast Ridge above Advance Base, with a view to helping those of us who had not yet had the chance of reaching the summit try for it along this relatively safe and broad ridge. Again, time prevented us from doing what we most wished. We found that we would have to return as soon as possible to our native country, keeping dates set by our professional duties, developing films, writing the book promised our creditors, and so on. This decision was a great disappointment first of all to our magnificent, fruitful companions Sabir Kamal and Abdul Karim. It is our hope that they soon get the opportunity with another expedition to go "all the way."

Our conclusion might be formulated thus: the severe norm "You should be happy and have peace of mind" may easily lead to returns without reaching a summit, but it does not rule out great efforts being made and, if sufficient time for training and slow altitude acclimatization is secured, does not preclude the successful climbing of walls of rock and ice of the South Wall dimension. As regards this particular wall, however, one must have a July with weather as it was in 1949 and 1950—practically cloudless. Only then might one peacefully negotiate cliff after cliff from the glacier level to the summit rocks. We wish good luck to those who feel they would like to try.

A Systematization of Gandhian Ethics of Conflict Resolution

Introductory Remarks

Since 1947 a great number of publications in the social sciences (taken in a broad sense) and in philosophy have had peaceful cooperation between today's major power constellations as a main or subsidiary topic. Various surveys, such as the UNESCO publication *The Nature of Conflict*, show a reassuring richness in aspects and approaches. Little has been done, however, to utilize the vast potential of those attitudes of nonviolence that have crystallized in more or less explicit ethical doctrines. Comparatively few publications attempt a synthesis of philosophical and social science approaches. In this paper an example of such a synthesis will be offered.

Any normative, systematic ethics containing a general norm against violence will be called an ethics of nonviolence. (The norm must, of course, exclude war for defensive purposes.) The term *violence* must cover not only open, physical violence but also injury and psychic terror. The term *hostility* would, perhaps, give rise to more adequate associations. In the following an instance of such an ethics of nonviolence, that of Gandhi, will be given in a condensed, systematized form. This has not been attempted before. The task is important in part because it makes it easier to distinguish essentials from nonessentials, and features owing to particular historical situations from features of general, timeless, or at least very permanent validity or applicability.

This article was reprinted with permission from *Journal of Conflict Resolution* (Thousand Oaks, CA: Sage Publications, Inc.) 2 (1958): 140–55. Sources cited here appear in the selected bibliography following this article.

Systematization D of Gandhian Ethics of Conflict Resolution

This part of the paper has a definite, very limited purpose: to give a brief and highly condensed exposition of one part of Gandhi's ethics of conflict.

In the realm of political action, Gandhi's views and precepts were usually explicit. According to his ethics, explicitness is a duty. His politically relevant actions were innumerable, and he made running comments on them in terms of ethical appraisals. This makes it practicable to work out broad, interrelated groups of sentences representing *rational reconstructions* or *models* covering Gandhi's ethically relevant verbal behavior.

The primary sources for this kind of inquiry are historical documents and other materials concerning Gandhi's activities, his own systematic writings, and his correspondence, conversations, speeches, and so on, which were recorded or summarized by Mahadev Desai and others. Much of this material has already been printed and is easily available.

If I were to mention a publication that has particularly high value for rational reconstructions, I would choose the first volume of Gandhi's *Non-violence in Peace and War*. It was not written completely by Gandhi himself. It includes not only a collection of newspaper articles and letters but also recordings of conversations. They are all dated, and most of them refer to well-known political actions going on at the time. The concrete nature of the problems at issue does not reduce the philosophical value of the material; rather, it enhances it. The interpretation of professional philosophers' ethical texts is usually hindered by an almost complete lack of reference to application in concrete situations. This holds for Plato, Hobbes, Nietzsche, and others. Even constructed examples are sometimes lacking. Without abundant application to concrete and well-known situations, ethical doctrines are almost impenetrable to analysis.

In the following, one particular version, "D," of one particular rational reconstruction in the form of a normative system will be outlined. The system belongs to the class of systems that outline, reflect, or portray, not all Gandhian thought, but Gandhi's *ethics of group struggle between 1906 and 1934*. It does this, as far as I can judge, sufficiently closely and extensively to be considered an adequate rational reconstruction.

The version D is a condensed and, therefore, to some extent rough exposition of the system. Concerning the adequacy of systematization D, the following should be added: The norms N1–N25 and most of the hypotheses are

selected on the basis of a survey of norms and hypotheses in Gandhi's writings. Some of our formulations are rather close to those of Gandhi; others are only indirectly or in part derived from him. Our main concern has been to assure that all norms of group ethics necessary to justify and explain *satyāgraha* (as described by Gandhi) are included, in a rough way, in N₁–N₂₅ and that no norm is contrary to the spirit of the formulations found in Gandhi's texts. Thus, completeness or comprehensiveness has ranked high in our choice of D as a first approximation to an optimal version of the system.

The (necessary) documentation in testing the degree of material adequacy of the systematization D requires a separate article. Most of the quotations and comments required in such documentation are already published (in Norwegian) (Galtung and Naess 1955).

We will not raise the question of the extent to which systematizations and systems may differ and still belong to the class of adequate rational reconstructions. Presumably, considerable changes in content might be made without doing violence to the available observational material.

The ethics of group struggle is conceived in this article as a part of ethics in general, but with a certain amount of independence: the total set of its norms is derived from a small number of norms that concern group struggle and a set of (nonnormative) hypotheses.

The dependence of the part upon the whole of ethics is structurally shown by the derivation of the basic norms concerning group struggle from norms of other parts of ethics. This dependence is also indicated by the fact that some of the norms of the particular version of the ethics of group struggle outlined here (systematization D) can be derived from norms of other parts of ethics by processes of inference that do not include the basic norms of the ethics of group struggle. The norm N₈, "Do not humiliate or provoke your opponent," in systematization D is derived from norm N₄ and hypothesis H₉, that is, from "If you are not able to subsume any of a group of relevant actions or attitudes as in themselves violent or constructive, then choose that action or attitude that most probably reduces the tendency to violence in the participants in the struggle" and "You invite violence from your opponent by humiliating and provoking him." Norm N₈, however, might just as well be derived from a code of conduct concerning behavior toward others, whether participants in a struggle or not. The historical data permit (of course) a number of different explanations of the derivation of the top norm N₁ of systematization D from top

norms of general ethics. Here is one possibility, the *D systematization. It is expressed in terms that certainly require much commitment but that may be good enough for the present purpose of illustrating the dependence of the ethics of group struggle upon other parts of ethics.

*N₁. Seek complete self-realization.

*H₁. Complete self-realization presupposes that you seek truth.

*H₂. All living beings are ultimately one.

*H₃. Violence against yourself makes complete self-realization impossible.

*H₄. Violence against any living being is violence against yourself (derived from *H₂).

*H₅. Violence against any living being makes complete self-realization impossible (derived from *H₃ and *H₄).

*N₂. Realize nonviolence and seek truth (derived from *N₁, *H₁, and *H₅).

N₁. Act in group struggle and act, moreover, in a way conducive to long-term, universal, maximal reduction of violence.

The derivation of N₁ from the basic general norm of self-realization permits us to picture the ethics of group struggle as an application of that norm to particular situations. It should be noted that N₁ is not characteristic of consistent (or rather extreme) pacifist positions, since it may be argued, without attacking N₁, that killing in a group struggle may in some situations be more conducive to the long-term, universal reduction of violence than nonkilling.

Systematization D

N₁. Act in group struggle and act, moreover, in a way conducive to long-term universal reduction of violence.

Sentence N₁ is intended to express *the* top norm of the system. All other norms are conceived to be derivable from this norm plus hypotheses.

The normative power of the system rests with N₁ and N₁ alone. Instead of using the phrase “hypotheses and norms of the system,” we might as well have the phrase “descriptions and prescriptions.” The term *hypothesis* is used because it suggests that we wish to emphasize the empirical, a posteriori character of the statements. Since all norms of the system except N₁ are prescribed only under the condition that certain hypotheses are true, the whole system except N₁ is, in principle, open to scrutiny from a scientific point of view. That is, the validity of every single statement of the ethics of group struggle depends upon the truth and tenability of a set of empirical hypotheses, *testable only by the techniques of the social sciences*. This is asserted here in relation to systematization D only, but other systematizations would show a similar implicit dependence on social science.

The top norm N₁ is preferred to a norm simply saying “Do not use violence” because, among other things, the latter would be too narrow. N₁ envisages a reduction of violence, not just the reduction of one’s own violence. Gandhi demands not only personal abstention from violence but a conduct that does not provoke violence by the opponent or anybody else affected by our conduct. Thus, we should not humiliate him by certain kinds of passive resistance, because this is likely to produce hatred, which, in turn, may strengthen his disposition toward future use of violence.

There is another important aspect of N₁: it requires that we act in group struggles and not run away from the area of conflict. Here the basic attitude of the *karamayogi* reveals itself: one cannot retreat to the solitude of the Himalayas in order to follow N₁, because nonviolence by mere isolation from others is not likely to induce nonviolent behavior in others. It is by personal interaction in conflict situations that we can best reduce violence.

The use of the term *violence* in Gandhian texts is such that sometimes rather narrow and sometimes rather broad concepts can be made to fit the occurrence of the term. On the whole, *violence* is used to include much more than physical violence and injury. In this article we shall leave much of the ambiguity and vagueness untouched. For the purpose of systematization of a somewhat higher level of verbal precision than D, the following definition may suffice:

Definition 1: “The person *P* is violent toward the person *Q* in a given situation *S* (or at a given time *T*)” shall mean the same as “The person *P* is injuring or coercing, or he intends to injure or coerce, or he would, if given

opportunity (in that situation), injure or coerce the person *Q* in the situation *S* (or at the time *T*)."

The person *Q* may be *P* himself. In a next approximation to an adequate systematization, the terms *injure* and *coerce* would either have to be carefully introduced or other terms substituted for them.

H1. The means determine the results.

Gandhi formulated his view on this point in a most categorical way. For example, he wrote: "Means and ends are convertible in my philosophy of life. They say 'means are, after all, means.' I would say 'means are, after all, everything.' As the means, so the end." He also expressed his idea in this way: "The means may be likened to a seed, the end to a tree; and there is just the same inviolable connection between the means and the end as there is between the seed and the tree." *H1* might also be thus formulated: The character of the means determines the character of the results.

Hypotheses *H2* and *H3* below are derived from *H1*. They may, however, be considered separately; those who hesitate to accept Gandhi's strong view of means and ends should not make their evaluation of *H2* and *H3* wholly dependent on *H1*. The latter is difficult to confirm in its extremely general form.

H2. In a group struggle you can keep the goal-directed motivation and the ability to work effectively for the realization of the goal stronger than the destructive, violent tendencies and the tendencies to passiveness and despondency only by making a constructive program part of your campaign and by giving all phases of your struggle, as far as possible, a constructive character.

A quotation from Gandhi's newspaper *Harijan* (Dhawan 1946) indicates how important he found this hypothesis: "By hammering away at it through painful years," replied Gandhi, "people have begun to see that there is a potency in non-violence, but they have not seen it in all its fullness and beauty. If they had responded to all the steps that had to be taken for the effective organization of non-violence and carried out in their fullness the various items of the eighteen-fold constructive programme, our movement would have taken us to our goal. But today our minds are confused because our faith in constructive work is so weak."

We assume tacitly that the goal is acceptable from the point of view of Gandhi's ethics as a whole. This assumption is used in relation to other hypotheses and norms of systematization D. The system is conceived as a part of a general system of ethics, and directives as to how to fight for a bad cause are irrelevant. This note is important because otherwise one cannot assume, as in H₂, that there is an incompatibility between goal-directed motivation and destructive, violent tendencies.

H₃. Being violent counteracts long-term, universal reduction of violence.

The qualification "long-term, universal" is used in order to provide a basis for the argument that, even if the short-term result of a war or of a minor violent act may be complete suppression of a large-scale violence that at the moment is threatening, the long-term effects of the violence are likely to result in more violence than was avoided as an immediate result.

N₂. Make a constructive program part of your campaign and give, as far as possible, all phases of your struggle a constructive character.

Norm N₂ is conceived to be derivable from N₁ and the hypothesis H₂.

N₃. Never resort to violence against your opponent.

Norm N₃ is conceived to be derivable from N₁ and H₃. Actually, as formulated above, no derivation is, of course, possible in any strictly logical sense. Such derivation would require complete formalization of the system. Here we can only offer a point of departure for explications with adequate logical relations. Remarks similar to this are called for in many other instances in the following where the terms *derive* and *derivable* are used.

N₄. If you are not able to subsume any of a group of relevant actions or attitudes as in themselves violent or constructive, then choose that action or attitude that most probably reduces the tendency toward violence (i.e., violent actions or attitudes) in the participants in the struggle (partisans as well as opponents).

Norm N₄ is derived from N₁ as a specification of it (it might also be conceived as derived from N₁ and H₁).

The next norms are derived from norms N₂, N₃, and N₄ with the aid of further hypotheses. To facilitate surveying the systematization as a whole, we shall write it out in a somewhat schematic way.

A norm is said to be on level k , $k > 1$, if it is directly derived from a norm of level $k-1$ together with certain hypotheses or as a specification of it. A hypothesis is said to be of level k if it is used in the direct derivation of level $k+1$.

First-level norms and hypotheses

N₁, H₁, H₂, H₃.

Second-level norms and hypotheses

N₂. Derived from N₁ and H₂.

N₃. Derived from N₁ and H₃.

N₄. Derived from N₁ or from N₁ and H₁.

H₄. You can give the struggle a constructive character only if you conceive it and carry it through as a struggle *in favor of* human beings and certain values, thus eventually fighting antagonisms, but not antagonists.

H₅. It will have a constructive effect on you yourself and on those for whom you struggle if you live together with them and do constructive work for them.

H₆. It will create a natural basis for confidence in you among those for whom you struggle if you live together with them and do constructive work for them.

H₇. All human beings have interests—at least long-term interests—in common (derivable from *H₂).

H₈. Cooperation on common goals reduces the chance that the actions and attitudes of the participants in the conflict will become violent.

H₉. You invite violence from your opponent by humiliating or provoking him.

Thus, if as part of a boycott of a university or a shop you lie down in the corridors so as to make it impossible for those opposed to the boycott to avoid stepping on you, your opponent is humiliated. He may refrain from entering the building for respectable ethical reasons, or he may do it with resentment and anger. He is not likely to be won to your case, but, on the contrary, he will be more willing to use extreme measures in the conflict.

H10. Thorough knowledge of the relevant facts and factors increases the chance of a nonviolent realization of the goal of your campaign.

Gandhi always acquired a thorough knowledge of relevant circumstances before he acted, and he warned his adherents against advocating his cause before they knew well the various aspects of the problems of concern.

H11. Secrecy and distortion or avoidance of truth reduces the chance of a nonviolent realization of the goal of your campaign.

As was indicated above, in the *D systematization, the demand for truth was central in Gandhi's ethics.

It might be pointed out here as a subhypothesis that the intention to keep certain plans, moves, motives, and objectives secret influences our behavior so that we cannot face our opponent openly; such an intention is also more easily revealed to the opponent than we are likely to believe.

H12. The better you make clear to yourself what the essential points are in your cause and your struggle, the less likely you are to take a violent attitude.

H13. The better your opponent understands your conduct and your case, the less likely he is to use violent means.

On the whole, Gandhi would insist that we inform our opponent more completely—and especially by action, not mere proclamations.

H14. There is a disposition in every opponent such that wholehearted, intelligent, strong, and persistent appeal in favor of a good cause is able ultimately to convince him.

Gandhi tended to include any normal person in the intended field of validity of this hypothesis, interpreting "normal" broadly enough to cover

Hitler. A person's capacity to convince the opponent may be inadequate, but it can be developed.

H15. Mistrust stems from misjudgment, especially of the disposition of your opponent to answer trust with trust and mistrust with mistrust.

There are many examples in Gandhi's writings of this conception of trust and mistrust. His life likewise offers examples of the way he trusted people strongly opposed to him and the courage he thus proved. He repeatedly risked his own life by believing that he could trust his opponents when he met them personally.

H16. The tendency to misjudge our opponent and his case in an unfavorable direction increases his and our tendency to resort to violence.

H17. You can win most thoroughly with nonviolent means by turning your opponent into a believer in and supporter of your cause.

No effort has been made to derive some of the hypotheses from others. By suitable modifications, H15 and H17 might be derived from H14.

Third-level norms and hypotheses

N5 (derived from N2 and H4). Conceive your struggle and carry it through as a positive struggle in favor of human beings and certain values, thus eventually fighting antagonisms, but not antagonists.

It may be mentioned, as an example, that Gandhi in his most famous campaign supported the people in making salt rather than instigating them against the empire salt producers and their factories. The situation desired was anticipated. One should fight the antagonism, not the antagonists.

N6 (derived from N2 and H5 or from N4 and H6). Live together with those for whom you struggle and do constructive work for them.

N7 (derived from N2 and H7 or from N4 and H7 and H8). Try to

formulate the essential interests that you and your opponent have in common and try to establish a cooperation with your opponent on this basis.

N8 (derived from *N3* or from *N4* and *H9*). Do not humiliate or provoke your opponent.

N9 (derived from *N4* and *H10*). Acquire the best possible knowledge of the facts and factors relevant to the nonviolent realization of the goal of your cause.

N10 (derived from *N4* and *H11*). Do your utmost to be in full accordance with the truth in your description of individuals, groups, institutions, and circumstances relevant to the struggle.

N11 (derived from *N4* and *H11*). Do not use secret plans or moves or keep objectives secret.

N12 (derived from *N4* and *H12* and *H13*). Announce your case and the goal of your campaign explicitly and clearly, distinguishing essentials from nonessentials.

N13 (derived from *N4* and *H13*). Seek personal contact with your opponent and be available to him.

N14 (derived from *N3* or from *N4* and *H16*). Do not judge your opponent harder than yourself.

N15 (derived from *N4*, *H14*, *H15*, and *H16*). Trust your opponent.

N16 (derived from *N4*, *H14*, and *H17*). Turn your opponent into a believer in and supporter of your case.

H18. You provoke your opponent if you destroy his property.

H19. Adequate understanding of your opponent presupposes personal *Einfühlung*.

H20. Avoidance of misjudgment of your opponent and his case presupposes understanding him and his case.

H21. If one keeps in mind one's own fallibility and failures,

opponents are less likely to be misjudged in an unfavorable way, and their case underestimated intellectually or morally.

H22. Every political action, your own included, is likely to be based, in part, on mistaken views and to be carried out in an imperfect way.

H23. You make it difficult for your opponent to turn to support of your case if you are unwilling to compromise on nonessentials.

H24. It furthers the conversion of your opponent if he understands that you are sincere.

H25. The best way of convincing your opponent of your sincerity is to make sacrifices for your cause.

H26. During a campaign, change of its declared objective makes it difficult for opponents to trust your sincerity.

With regard to H26, Gandhi had in mind the expansion of objectives at moments of weakness in the opponent, and contraction when it seems that the strength of the opponent has been underrated.

Fourth-level norms

N17 (derived from N8 and H18). Do not destroy property belonging to your opponent.

N18 (derived from N14 and H19 and H20). Cultivate personal *Einfühlung* with your opponent.

N19 (derived from N10 or from N14 and H20). Do not formulate your case and the goal of your campaigns and that of your opponent in a biased way.

N20 (derived from N14 and H21). Keep in mind and admit your own mistakes and weaknesses.

N21 (derived from N14 and H21). Keep in mind and admit the possibility that you are factually or morally mistaken, even when you sincerely believe that you are not.

N22 (derived from N16 and H22 and H23). Always be willing to compromise in nonessentials.

N23 (derived from N16 and H24). Do not exploit a weakness in the position of your opponent.

N24 (derived from N16 and H24 and H25). Be willing to make sacrifices for your cause.

N25 (derived from N16 and H24 and H26). During a campaign, do not change its objective by making its goal wider or narrower.

Exemplification and Elaboration

In this section I shall illustrate how the meager outline can be taken as a starting point for a more substantial presentation. Something will be said about two of the norms of the system, N2 and N23, just to make them more understandable and also more subject to criticism.

The importance in systematization D of norm N2, "Make a constructive program part of your campaign," stems in part from Gandhi's conviction that, if it is ignored by some sections of the supporters of *satyāgraha*, the strongest nonviolent methods in the fight for political freedom are rendered inapplicable. Only those who are able to take upon themselves the tasks of constructive community service are sufficiently mature for intense nonviolent struggle. In 1930 Gandhi stressed that he could not advise civil disobedience campaigns because N2 was unlikely to be fulfilled. Insufficient constructive content in the fight for freedom would make it overwhelmingly probable that there would be violence. Gandhi was determined to stop a civil disobedience campaign in case of violence, such as happened at Chaura Chauri, where some British policemen were murdered.

Gandhi insisted on constructive definitions of goals and subgoals and demanded that Indians should work together on peaceful economic and other projects, thereby acquiring a spirit of mutual trust and a habit of sacrifice in the interest of the wider goals. In India such work was organized and planned under the name of "The Constructive Programme." The norms saying that one should contribute to the implementation of the con-

structive program make up an integral part of the Gandhian ethics of group struggle. It is not a mere accessory.

A couple of quotations will make the point clearer. In his argumentation in January 1930 that the atmosphere is not such that a mass civil disobedience campaign can be started, Gandhi says among other things:

Constructive program is not essential for local civil disobedience for specific relief as in the case of Bardoli. Tangible common grievance restricted to a particular locality is enough. But for such an indefinable thing as Swaraj [freedom], people must have previous training in doing things of All-India interest. Trust begotten in the pursuit of continuous constructive work becomes a tremendous asset at the critical moment. Constructive work therefore is for a nonviolent army what drilling etc., is for an army designed for bloody warfare. Individual civil disobedience among an unprepared people and by leaders not known to or trusted by them is of no avail, a mass civil disobedience is an impossibility. The more therefore the progress of the constructive program, the greater is the chance for civil disobedience. Granted a perfectly nonviolent atmosphere and a fulfilled constructive program, I would undertake to lead a mass civil disobedience struggle to a successful issue in the space of a few months.

(*Young India*, January 9, 1930)

In the booklet *Constructive Programme* Gandhi even says that mass civil disobedience might be dispensed with if the constructive program were taken seriously by all concerned:

Civil disobedience is not absolutely necessary to win freedom through purely non-violent efforts, if the cooperation of the whole nation is secured in the constructive programme. . . . My handling of civil disobedience without constructive programme will be like a paralysed hand attempting to lift a spoon.

(Diwakar 1946: 187)

The constructive work is of various kinds. Here are a few items in a long list: work for removal of untouchability, for spread of hand-spun and hand-woven cloth, for other village industries, for village sanitation, for basic education through crafts, for literacy.

Gandhi also had in mind the effect upon the opponent. In the eyes of the opponent, the revolutionary seems mainly to have destruction in view.

Gandhi requires methods whereby the constructive intent is made completely clear and trustworthy to the skeptical opponent.

As a demonstration against the British salt tax and salt monopoly, considered to be profoundly unjust, Gandhi and a mass of poor people marched to the sea to make salt (illegally). *While the campaign was going on*, Gandhi used much time for other tasks, such as instigating house industry and cleaning up slum quarters. The latter activity was part of the campaign and part of the struggle for *swaraj* as a whole. It was a demonstration *ad oculos* and helped both followers and opponents fix their attention upon the positive goals rather than upon the means and the inevitable destructive components, that is, disabling the British administration and so on.

One may say that the norm to partake in a constructive program is the supreme anti-antimovement norm in the system: those tendencies in organizations or groups that favor the destruction of something (the organized anti-Semites, anticommunists, antifascists, etc.) are denounced; every action should have a clear positive or pro-character.

I have used the norm "Give your campaign a constructive content" to illustrate the rich, scarcely surveyable material that must be studied in order to proceed from a mere diagram toward a full presentation of Gandhi's political ethics. It should be clear from the comments and quotations that constructivity of main goals, constructivity of subgoals, and the so-called Constructive Programme are means by which Gandhi tried to contribute to the implementation of *many* norms. It should also be clear that some norms may be viewed as occupying a lower position in relation to the norm requiring constructive work. Actually, the constructive work was a kind of partial anticipation of the condition Gandhi called *purna swaraj*, *real* independence, an ideal state of society. The political independence was not, as such, a constructive goal for him, since it was defined as *absence* of British domination.

Let us elaborate upon another norm, N₂₃, "Do not exploit a weakness in the position of your opponent," in case it owes to factors not relevant to the struggle.

A campaign is not clearly subservient to the goal of converting the opponent, if victory in the sense of bringing the opponent to accept the conditions for terminating the *satyāgraha* is caused by some misfortune he has experienced that makes it necessary for him to call off his struggle with the

satyāgrahi. In short, if by factors irrelevant to the struggle and therefore unrelated to the conversion of the opponent, the *satyāgrahi* are able to get what they desire *in terms of conditions*, they should desist from asking for those conditions.

As an example, we may take what happened at the last stage of the *satyāgraha* campaign in South Africa.

Gandhi fought against certain laws that he considered discriminatory against the Indians. Their repeal was the condition for bringing the *satyāgraha* campaign to a stop. The Indian leaders were planning a march as part of the *satyāgraha*. When a railway strike broke out among the white employees, the government was in a dangerous position and might well have been willing to settle the conflict with the Indians in order to meet the situation created by the strike. Let me quote what Gandhi (1927) says in his narrative. Its reliable character is not contested by his adversary—and great admirer—General Smuts.

Just at this time there was a great strike of the European employees of the Union railways, which made the position of the Government extremely delicate. I was called upon to commence the Indian march at such a fortunate juncture. But I declared that the Indians could not thus assist the railway strikers, as they [the Indians] were not out to harass the Government, their struggle being entirely different and differently conceived. Even if we undertook the march, we would begin it at some other time when the railway trouble had ended. This decision of ours created a deep impression, and was cabled to England by Reuter.

When the Second World War broke out, pressure was brought upon Gandhi to intensify the fight against the British. He declined to take up mass civil disobedience during the war. He said: "There is neither warrant nor atmosphere for mass action. That would be naked embarrassment and a betrayal of non-violence. . . . By causing embarrassment at this stage, the authorities must resent it bitterly, and are likely to act madly. It is worse than suicide to resort to violence that is embarrassment under the cover of non-violence."¹

The argumentation and also the behavior of Gandhi in these two instances are in conformity with a norm such as N23. Later, during the Second World War, Gandhi intended to start a mass movement. This plan cre-

ates a problem for our systematization. It requires (1) a hypothesis that the British then, in the autumn of 1942, were no longer in a temporarily weak position, or (2) a decision that Gandhi violated his own norms, or (3) a decision to modify systematization D so as to make Gandhi's behavior in both 1920 and 1942 conform to the explication of his ethics. We tentatively take the view that Gandhi in 1942 violated his own norms and are consequently able to retain systematization D as adequate.

Application to Efforts of Peaceful International Cooperation

The foregoing system of norms formidably restricts the field of justifiable forms of conflict resolution. It is, however, the claim of the proponents of ethics of nonviolence *that such a system does not leave out any effective form of conflict resolution*. It is presupposed that the goal is justifiable from the point of view of general ethics. It is claimed, therefore, that no effective (powerful, adequate) form is excluded for those who fight for a bad cause. The criteria of goodness offered by Gandhi and others are such that no statesmen of today would openly reject them. That is, contemporary men in power would proclaim their goals to be good in the sense required.

In view of this, the ethics of nonviolence claims to give the effective means of reaching at least one of the goals of the major powers in present-day international politics, namely, that of peaceful cooperation in the minimum sense.

Grave questions arise immediately, however, when this common goal is seen in combination with other goals of more traditional kinds, such as ideological or economic domination or leadership. Here the antagonists impute to each other the most sinister designs. However, the possibility that the antagonist is fighting also for bad causes, according to each of the participants, does not, according to the above, make the nonviolent forms of struggle less effective. It reduces the chances that nonviolent methods are wholeheartedly adopted, but not the chances that they will succeed, if adopted.

Which are now the main forms of struggle that satisfy the nonviolence norms? In a general way, and using a powerful slogan, we may characterize them as forms *affecting a liquidation of antagonism, not antagonists*. Lest we lose contact with the forms that have actually been tried out with a fair de-

gree of success, we will take the techniques of Gandhi as representative examples. His field of action was threefold: international politics (South Africa and India versus the British Empire), interracial, interideological conflicts (Hindu-Moslem riots, etc.), and economic conflicts (management versus labor, village industry and agriculture versus mechanization, etc.).

The more extreme forms of struggle (strikes, fasting, etc.) will here be called Gandhian *satyāgraha* and will be considered to make up a subclass of forms satisfying the norms and hypotheses of version D. Before Gandhi resorted to *satyāgraha*, his activity would go through five interrelated phases:

1. Accumulation and analysis of factual information concerning the conflict (on the spot). Unbiased exposition of the main facts relating to the conflict, with extensive use of the opponents as judges (*audi alteram partem*).
2. Clarification of essential (long-range) interests in common with the antagonists (*presupposition*: there are always common interests).
3. Tentative formulation of a limited goal for immediate action acceptable to both parties in terms of common interests and in accordance with the ultimate norm of self-realization.
4. Discussion of the tentative formulations, person to person and face to face, and not merely via negotiators or representatives. Clarification of the instrumental value of the limited goal in resolving a part or aspect of the struggle.
5. In case of persistent resistance from one of the parties concerned, search for a compromise without giving up essentials—that is, search for a compromise affecting limited interests, not basic values.

If, *and only if*, these activities did not bear fruit, Gandhi would consider it justifiable (and effective) to resort to *satyāgraha*.

The different forms of *satyāgraha* planned and used by Gandhi were adapted to a very different situation from that confronted by someone who intends to contribute to conditions of peaceful cooperation between the major power constellations today. There are two major differences of situations: (1) Personal contacts between the opposing groups (Indian-English, Moslem-Hindu) were very extensive and intensive in India (and South Africa). The present problem relates to groups with very few personal con-

tacts. Further, (2) in India it was mainly a question of relations between a physically mightier and a physically weaker group, whereas today there is roughly an equilibrium, with both sides being eager not to let the other become physically stronger.

Gandhi's forms of *satyāgraha* will, therefore, not be described in this paper. Gandhi himself stressed that, for him, the basic tenets of nonviolence were central, not *satyāgraha* as developed by him or others.

It is our contention that a renewed scrutiny of the nonviolence norms, independent of Gandhian *satyāgraha*, will lead to important considerations as to the attitudes and measures to be taken in international politics. It is characteristic of this situation that the five conditions necessary to justify extreme forms of struggle are not, or are only in part, fulfilled.

The basic norm of the ethics of group struggle does not permit a mere personal avoidance of violence but requires us to take part in struggles and in such a way as to reduce the chances of violence in general. Applied to problems of cooperation between East and West, this means that it is the duty of all concerned to partake in solving them.

According to hypotheses H2 and H4 and norms N2 and N5 (we refer consistently to systematization D), the struggle between Soviet-oriented and NATO-oriented powers must be given a positive content. This has, for example, the implication that one should avoid any step merely dictated *against* an institution (anticommunism, anti-imperialism) or, even worse, *against* an individual or a group of people. One's actions should have the character of being *in favor* of positive values and principles *in support* of human beings. It is, furthermore, in accordance with these hypotheses and norms if one cooperates on what are considered to be common objectives and tasks, possibly on the common tasks and objectives of humankind, both in the relation between power groups and in other areas—for example, in technically underdeveloped countries.

Hypothesis H3 is applicable to the idea of preventive war, preventive terror, or any other violence engaged in in order to reduce a greater amount or a greater intensity of violence.

It is not possible here to examine each norm and hypothesis separately. N9, which stresses the importance of a thorough knowledge of the facts and factors relevant to the struggle, is of considerable importance, however. This applies not only to statesmen but also to the people at large. Enduring ef-

forts to create, in all countries, a first-class research and information service and education dealing with international relations are highly important.

N₁₃ and also other norms and hypotheses stress the necessity of maximum personal contact between those engaged in the struggle. The evident consequence of this is a policy of opening borders. Norm N₁₃ is broken when one side uses a social boycott to mark moral indignation (e.g., stopping student exchanges between two countries in order to mark moral indignation concerning an action undertaken by one of these countries) or refuses entrance into the country until certain conditions are fulfilled. According to Gandhi, there are no conditions under which one can refuse to meet one's opponent, and, as this refers to all participants, it is not a norm affecting contact only between politicians.

The personal contact norms and hypotheses go against the assumption that real understanding of the struggle can be reached on the verbal plane. That is, the mass-communication media are insufficient vehicles of information. The understanding at present between Eastern and Western Europeans must, according to this, be largely illusory, since personal contacts are at near-zero. According to H₁₁ and other norms and hypotheses, on the other hand, the good effects of personal contacts will be reduced or impeded if they are exploited (e.g., for propaganda purposes), that is, if the truth norm is not respected.

The above shows that even if the already developed forms of *satyāgraha* will be applicable only after an increase in international personal contacts, the ethics of nonviolence has considerable bearing upon the problems of coexistence.

The prescriptions resulting from application of the norms of nonviolence are, on the whole, such as are put forward as recommendations from various groups of researchers in social science. The chief differences are found in relative priorities and in the ultimate justification of the actions prescribed.

Research Suggestions

Much research has already been done that throws light on the tenability of the hypotheses implicit in the ethics of nonviolence, and also on the chances of the ethics of nonviolence being applied. Thus the tremendous

literature on the nature and consequences of prejudice, national images, and black-and-white thinking in mass communication, patriotic history textbooks, and pressure groups against world organizations is directly relevant.

In the following, some research topics are listed that concern current international conflicts:

1. Which interests do the Soviet and the NATO powers have in common, and which of these are generally acknowledged to be common interests?

We have already mentioned one common interest satisfying these criteria—the elimination of threats of annihilation. There are others, presumably, and it is of importance to know their interdependence and their status in relation to interests not held in common.

Concerning research on threats see, for example, Gladstone 1962: 14 ff.

2. What kinds of actions could institutions or individuals from the antagonistic powers perform together in an atmosphere of cooperation in order to satisfy common interests? What kinds of actions through international organizations (UN, UNESCO, etc.) fit into this context? What conditions of work are favorable to their success?

3. How can these kinds of actions be used to give a positive content, if not to the total struggle, then at least to part of the struggle between the rival powers?

4. Especially, what role can personal contacts across the frontiers play in this context? Which kinds of contacts—professional, tourist, student, religious, artistic, athletic—are most successful in reaching stated objectives? See Allport 1947; Ascher 1950; Smith and Casagrande 1953.

Then there are questions related to the capacity of people of goodwill to elicit the best from an antagonist.

5. Which factors determine to what extent a person is able to react to an antagonist as a fellow being and to avoid reacting to him as a symbol of an institution or a representative of a doctrine?

6. Which factors determine to what extent a person is reacted to as a symbol or representative of an institution?

We also need research on which of the factors that operate to minimize the institutional or functional perception and conception can most easily be strengthened.

7. How are we to strengthen loyalties toward institutions favoring per-

son-to-person meetings (not persons-as-symbols meetings)? See Guetzkow 1955.

8. What are the factors favoring individuals acting from personal responsibility for world conflicts? See Kelman 1954: 34 ff.

The positive role of education has been shown in countless studies that correlate level of education with attitudes of internationalism. There may, however, be opposite factors at work that make the educated more likely to let knowledge interfere with the human approach to antagonists.

9. What factors encourage broad conceptions of the self, conceptions that favor identification with the interests of outgroups? See Angell 1957; Cooley 1964; Mead 1934; Wagenen 1952.

10. What factors favor the distinction between appreciation and friendliness, making strong disapproval consistent with consistent friendliness on the personal level?

11. What is the role of faith in the validity of fundamental norms of non-violence for active cooperation in a hostile environment? See Yinger 1946.

12. What is the role of a personality-based hostility in attitudes of cooperation and conflict toward other groups? See Adorno et al. 1950; Christiansen 1959; Levison 1957.

13. What are the factors favoring truthful, nonpartisan descriptions of the political activities of the rival major powers?

14. What are the effects of secrecy upon meetings of antagonists? To what extent does it interfere with personal trust? See Guetzkow 1955.

There are, finally, important problems with regard to the political ethics being practiced.

15. To what extent, in different countries, are nonviolence norms adhered to and practiced in political life on the local and national levels? To what extent is there a correlation in this respect with the attitude toward the great tensions in world politics?

16. What have been the effects of concrete nonviolence policies, compared with the probable results if other policies had been followed? To what extent and in what direction has the attitude to nonviolence in general among the people concerned been influenced by these effects? See Murphy 1953.

17. To what extent is the favorable attitude to nonviolence in the in-

stances found rooted in a profoundly nonviolent attitude in accordance with Gandhi's ethics? To what extent is it limited to particular phenomena such as military warfare? To what extent does it depend on particular political sympathies or loyalties?

18. On which norms and on what kinds of political actions can conscious adherents of a nonviolence ethics and others agree? On what tasks can they cooperate? How can political ethics be brought into the focus of political life, research, and education?

Research aimed at answering these questions inevitably leads not only to questions of sociology, social psychology, and education but also to background questions of economics; for example, the effect of certain economic systems upon the ability or willingness to let those attitudes of cooperation grow that favor a settlement of the most threatening conflicts in the history of humankind.

Selected Bibliography

Political Ethics of Nonviolence

- Dhawan, Gopi N. 1946. *The Political Philosophy of Mahatma Gandhi*. Bombay: Popular Book Depot.
- Diwakar, Ranganath R. 1946. *Satyāgraha: The Power of Truth*. Bombay: Hind Kitabs.
- Galtung, Johan, and Arne Naess. 1955. *Gandhi's politiske etikk* (Gandhi's political ethics). 2nd ed. 1968. Oslo: Johann Grundt Tanum.
- Gandhi, Mohandas K. 1927. *The Story of My Experiments with Truth*, vol. 1. Ahmedabad: Navajivan.
- . 1942–49. *Non-Violence in Peace and War*, vols. 1, 2. Ahmedabad: Navajivan.
- , ed. 1981. *Young India: 1919–1931* (in 3 vols.). Ahmedabad: Navajivan Trust.
- Nehru, Jawaharlal, Krishna Kripalani, Ralph J. Bunche, Boyd Orr, Martin Niemöller, and others. 1953. *Gandhian Outlook and Technique*. New Delhi: Ministry of Education, Government of India.
- Mühlmann, Wilhelm E. 1950. *Mahatma Gandhi: Eine Untersuchung zur Religionssoziologie und politischen Ethik*. Tübingen: Mohr.
- Shridharani, Krishnalal. 1939. *War Without Violence: The Sociology of Gandhi's Satyāgraha*. New York: Harcourt, Brace.
- Tolstoy, Leo. 1961. *The Kingdom of God Is Within You*. New York: Noonday Press.

*Social Science Contribution to Questions of Peaceful Cooperation:
Topics Touched on in the Present Paper*

- Adorno, Theodor W., Else Frenkel-Brunswick, D. J. Levison, and R. N. Sanford. 1950. *The Authoritarian Personality*. New York: Harper and Bros.
- Allport, Gordon W. 1947. "Guideline for research in international co-operation." *Yearbook of Social Issues* 3.
- . 1950. "The role of expectancy." In *Tensions That Cause Wars*, edited by H. Cantril. Urbana: University of Illinois Press.
- Angell, Robert Cooley. 1957. "Discovering paths to peace." In *The Nature of Conflict*. New York: UNESCO.
- Ascher, Charles S. 1950. "The development of UNESCO's program." *International Organization* 4.
- Christiansen, Bjørn. 1959. *Attitudes Towards Foreign Affairs as a Function of Personality*. Oslo: University of Oslo Press.
- Cooley, Charles Horton. 1918. *Social Process*. New York: Scribner.
- . 1964. *Human Nature and the Social Order*. New York: Schocken.
- Dunn, Frederick S. 1950. *War and the Minds of Men*. New York: Harper.
- Gladstone, A. I. 1962. "Relationship orientation and processes leading to war." *Background* 6: 13–25.
- Guetzkow, Harold. 1955. *Multiple Loyalties*. Princeton: Center for Research on World Political Institutions, Princeton University.
- . 1957. "Isolation and collaboration: A partial theory of international relations." *Conflict Resolution* 1.
- Jackson, Elmore. 1952. *Meeting of Minds*. New York: McGraw-Hill.
- Kelman, Herbert C. 1954. "Relevance of social research in war prevention: A symposium." *Journal of Human Relations* 2(3).
- Klineberg, Otto. 1950. *Tensions Affecting International Understanding: A Survey of Research*. Social Science Research Council bulletin 62. New York: Social Science Research Council.
- Levison, David J. 1957. "Authoritarian personality and foreign policy." *Conflict Resolution* 1.
- McKeon, Richard, and Stein Rokkan, eds. 1951. *Democracy in a World of Tensions*. Chicago: University of Chicago Press. See answers to questions 29 and 30 concerning the value foundations of the world conflict.
- Mead, George Herbert. 1934. *Mind, Self, and Society*. Chicago: University of Chicago Press.

A Systematization of Gandbian Ethics of Conflict Resolution

- Murphy, Gardner. 1953. *In the Minds of Men: The Study of Human Behavior and Tensions in India*. New York: Basic Books.
- Naess, Arne, Jens Christophersen, and Kjell Kvalo. 1956. *Democracy, Ideology and Objectivity*. Oslo: University of Oslo Press. See, especially, chapter 3.
- Newcomb, Theodore M. 1947. "Autistic hostility and social reality." *Human Relations* 1.
- Pool, Ithiel de Sola. 1952. *Symbols of Democracy*. Stanford, CA: Stanford University Press.
- Smith, M. B., and J. B. Casagrande. 1953. "The Cross-cultural education projects: A program report." *Social Science Research Council Items*, no. 3.
- Wagenen, Richard W. van. 1952. *Research in the International Organization Field*. Princeton, NJ: Princeton University.
- Wright, Quincy. 1955. *The Study of International Relations*. New York: Appleton-Century-Crofts. See "International Ethics" chapter.
- Yinger, J. Milton. 1946. *Religion in the Struggle for Power: A Study in the Sociology of Religion*. Durham, NC: Duke University Press.

Spinoza and Attitudes Toward Nature

This paper is not a report on pure research but on research in the service of the deep, philosophically oriented international ecology movement. More specifically, it takes seriously the thesis that in the long run our strange human species can avoid major crises only if the attitudes toward nature prevalent in the industrial states are changed. A key term today in so-called green philosophy and politics is *society in dynamic ecological equilibrium*. This thesis maintains that one of the necessary conditions of ensuring a “soft landing” in such a society is change of dominant attitudes.

I am concerned with how to achieve a soft landing without dictatorship or other immense catastrophes. Near-equilibrium might be obtainable through harsh dictatorship, by using ecological experts and *forcing* changes of economic and other policies upon a world populace that has no regard for nature except as a realm of resources for human beings.

A salutary change might develop without much philosophical reflection. There is, however, a chance that some of us, in our capacity as academic philosophers, might contribute in a modest way to such a change by pointing to *philosophies of nature that are in harmony with a sane ecopolitical outlook*.

Some have pointed to Friedrich Schelling, others to other philosophers. I point to Spinoza.¹ This is not because I think his extremely complex views can be conveyed to large numbers of people today, or even be thoroughly understood by a small, learned minority. The availability of Spinoza's thought is limited today, but his personal appeal is immense and practically universal among all who study philosophy.

This article was reprinted with permission from *Spinoza: His Thought and Work* (Jerusalem: Israel Academy of Sciences and Humanities, 1983), 160–75.

I shall try to formulate how I conceive our historical situation in relation to nature.

In the Hellenic period a religious movement toward inwardness eventually had the effect of downgrading the status of the physical universe, including the human body. In Europe in the Middle Ages there was a dominating tendency to concentrate value in God and the Spirit *at the cost of* the body and the physical universe. The attitude of a Francis of Assisi did not prevail.² An overly lofty estimation of “the world” was generally considered a temptation, and one had to fight the flesh. Naturalness tended to be identified with sinfulness and crudeness; everything natural came under suspicion. Individuality or, in the terminology of Spinoza, particular things were downgraded in their ontological and axiological status. All value was absorbed in God, the creation only imperfectly reflecting the qualities of a *spiritual* world order.

The Renaissance and the new natural science eroded God and Spirit as the mansions of all value *but did not reinvest nature*. On the contrary, nature was given the rather passive, profane job of serving as stuff and machinery. Holy places, the closeness and the religious veneration of nature were not restored.

The situation is now one of indifference and poverty: the transcendent God is gone, and nature is divested of any attribute that could foster a natural, deep reverence or fruitful personal interaction. (The hunter-gatherer interaction is today considered technically backward. There is also less and less to hunt and gather!)

What is left of nature is seen as *materials* for satisfying human needs or, in the industrial states, for the proliferation of wishes. Nature is seen as something neutral or hostile that has been largely, but not yet completely, subdued and conquered. What is left of comparatively untouched nature is the subject of superficial aesthetic or recreational attitudes. Life and work in and with nature is a rare privilege. So much for a nutshell formulation of our predicament.

In this situation, the philosophy of Spinoza provides a potentially vast source of inspiration. The following enumeration of traits does not presume to convince those who feel comfortable in the present era of rapid and vast changes on the surface of the Earth, or those who feel at home with the so-called modern lifestyle. It is, however, aimed at mobilizing those who

feel otherwise, and inducing them to make themselves better heard in social and political debates.

1. The completely immanent God: *Deus sive Natura*. One of Spinoza's very basic ideas is the immanence of God in Nature. "God is the immanent, not the transcendent cause of all things" (*Ethics* IP18).³ God's role as the cause of all things does not preclude the infinite number of particular things themselves from causing infinitely many things. God as cause cannot be distinguished, except conceptually, from what the particular things themselves cause. He is, in a sense, helpless without essences of particulars! Without our essence there is no God; without God we are nothing. Although Spinoza stresses the second part of this assertion, the first is also implied in his philosophy of immanence.

The Spinozic *identification* on the level of denotation or extension or reference (not on the conceptual or connotational level) of God with Nature means reinvesting Nature with perfection, value, and holiness. Spinoza explicitly rejects degrading nature in the way that some of his contemporaries did.

The expression *Deus sive Natura*, God or Nature (with a capital N), occurs twice in the preface to part IV of the *Ethics*. Here Spinoza talks about "the entity which we call God or Nature" and of the "actions" of God or Nature. The expressions *Deus sive Natura* and *Deus seu Natura* also occur in the proof of part IV:

The power through which particular things, and as a consequence, man, preserve their essence, is God's, or Nature's power, not in the role of (*quatenus*) being infinite; but in the role of being explicable (*explicari potest*) through the actual human essence. The power of man, in the role of being explicated through his own actual essence, is part of God's or Nature's infinite power, that is, essence.

(*Ethics*, IVP4)

As individuals we, like all other particular things, are invested with part of God's or Nature's infinite power.

If the idea of God's immanence is taken seriously, the two roles of God or Nature are equally basic: the role of being infinite and nonexplicable through particular finite things and the role of being thus explicable. Part I

of the *Ethics* speaks about *Deus quatenus infinitus*; the other parts, mainly about *Deus quatenus non-infinitus*. These other parts are as genuine an expression of Spinoza's system as is part I.⁴

I have translated the central but little-studied term *quatenus* as "in the role of." Other translations are of interest, for example: "in the capacity of"; "functioning as"; "as"; and the very common translation "insofar."

Using the extensional equivalence of "god" and "nature," we obtain an intuitively acceptable theorem: Nature does not exist apart from particular finite things. Nature or *natura naturans* is immanent in nature as *natura naturata*. It is immanent in particulars: particularity and divinity may perhaps be said to be equally basic aspects of "The Whole."

Let us go back to the four occurrences of *Deus sive* (or *seu*) *Natura* in the *Ethics*. In these occurrences one might plausibly interpret the terms *Deus* and *Natura* as having identical intension or connotation. If that were so in the rest of the *Ethics*, we should, without disturbing the meaning, be able to substitute one for the other in the text. However, while such a substitution leads to an interesting new Spinoza text, well worth considering today, it can sometimes lead to theorems that Spinoza himself would hardly have subscribed to.

If *Natura* is substituted for *Deus* in part V, we get, among others, the following theorems:

- Proposition 15N: He who clearly and distinctly understands himself and his affects, loves Nature, and the more he understands himself and his affects.
- Proposition 18N: Nobody can hate Nature.

When we contemplate God, that is, Nature, says Spinoza in his proof, we are active (and enjoying an active affect), and this excludes hating.

(When dragged along on still another botanical excursion by her parents—both botanists—a very young Norwegian girl exclaimed "I hate nature." How are we to interpret this?)

The introductory passage to the proof of proposition 20 in part V, is worth quoting:

This love of Nature is the highest good we can strive for in harmony with the dictate of reason, and is common to all human beings, and we wish all would enjoy it. As a consequence it cannot be polluted through jealousy.

Proposition 24 of part V is basic concerning particulars:

- Proposition 24N: The more we understand the particular things, the more we understand Nature.

This proposition regarding the (qualitative) increase of our understanding of God seems to be intuitively obvious to Spinoza: he offers no extended proof but merely refers to the corollary to proposition 25 in part I, a rather flimsy basis for such an unconventional conception. Presumably he would accept the reverse of 24N:

- The more we understand Nature, the more we understand the particular things.⁵

Clearly we cannot identify Nature (with a capital *N*) simply with the (infinite) set of particular physical and nonphysical things. Such an atomistic view is scarcely consistent with Nature as a whole being an individuum.

Gestalt thinking and the concept of “inner relations” are useful in making precise the interconnectedness of parts and whole.

We can now get a feeling of how the propositions of the *Ethics* read when the term *God* is replaced with the term *Nature*. Let us inspect the relation between our highest aims in life and God or Nature.

In the following quotation from part V, proof of proposition 27, “God or Nature” is substituted for God:

- The highest virtue of the mind is to understand God or Nature, or to understand things in the third way.

The “or” (*sive*) directly connects understanding God with understanding things. For validity Spinoza refers to the previously mentioned proposition 25 in part I. If we focus on God rather than on Nature, the lofty status of understanding particulars seems to reveal an inconsistency.

According to the *Ethics* the highest good to which the intuitive way of cognition can lead us is the understanding of particular things in the light of God or Nature. In section 13 of Spinoza’s work on understanding (1955), he identifies the highest good with the understanding of the unity of mind

with total Nature (*cum tota Natura*). The difference in formulation is instructive. The latter refers to Nature, not to God, but achieves the same as the first through the terms *unity* and *total*.⁶ According to the interpretation of Spinoza's system suggested in the foregoing pages, it is beyond the scope of our reason or language to describe *exactly* what the relation *is* between God, perfection, Nature, and individual things, e.g., living beings.

Nevertheless, the interpretation clearly has affinities with an attitude toward nature found among a significant subgroup of researchers, poets, and people with no special status. Here we are concerned with ecology.

The philosophical aim of the deep ecology movement may be formulated in a way not very different from that of Spinoza when he speaks about God or Nature and the role of particulars. Quite central to both is Spinoza's pronouncement, just referred to:

This is the goal I seek (*tendo*), namely to acquire such a nature⁷ [i.e., a nature that involves the understanding of the unity of the mind with total Nature] and to strive that many with me acquire it. . . . To do this it is necessary to understand so much of nature as is sufficient to acquire such a nature; and then to form a kind of community (*societas*) that is required in order that as many as possible in the easiest way can safely reach it.

(Treatise on the Correction of the Understanding, Sect. 14).

There is a wide gap between Spinoza's credo, strictly interpreted from a historical point of view, and that of the deep ecology movement. Yet, although man's predicament today differs from that in the seventeenth century, there are some similarities that suggest a basic continuity through the centuries.

Nature as conceived by field ecologists is not the passive, dead, value-neutral nature of mechanistic science but is akin to the active, perfect *Deus sive Natura* of Spinoza. It is all-inclusive, creative (as *natura naturans*), infinitely diverse, and alive in the broad sense of Spinozic panpsychism. It manifests structure, namely the laws of nature, but, because "all things hang together," we cannot predict the long-range effects of our particular actions and policies. This is in harmony with Spinoza's warning that we should not think man capable of ever fully understanding the "common order" of Nature.

Nature (with a capital *N*) is *intuitively* conceived as perfect in a sense

that Spinoza and ecologists hold more or less in common: it is not a narrowly moral, utilitarian, or aesthetic perfection. Nature is perfect “in itself” and not insofar as it serves specifically human needs. Spinoza does not argue in favor of Nature’s perfection.

“Perfection” has to do with *per* and *factum*, something already accomplished and completed. Perfection for Spinoza means completeness and realness (cf. *Ethics*, part IV, preface) of some sort when applied in general, and not just to specifically human achievements.⁸

In the latter case it means reaching what has been consciously intended. The concept of completeness is related to the concept of a *mature ecosystem*. Completeness suggests maximum diversity, maximum self-reliance, maximum dynamic equilibrium.⁹

2. The value dualism spirit and matter, soul and body, is eliminated in the *Ethics*. The same is true of the basic attitude of field ecologists. Perfection characterizes both realms.¹⁰

In view of the tendency to look upon the body as something more crude than the spirit, both field ecologists and Spinoza oppose most forms of spiritualism and, of course, moralism. Their realism does not, however, exclude the possibility of future societies characterized by generosity, justice, and nonviolence.

3. According to Spinoza, Nature (with a capital N) is not *in* time. As an *absolutely* all-embracing reality, Nature has no purpose. If it had a purpose, it would have to be part of something still greater, for example, a grand project. Time and, therefore, purpose are definable only *within* the network of relations of Nature; therefore, Nature as a whole cannot have aims or goals that refer to time. There is no all-embracing *progress* from the point of view of eternity or timelessness.

In ecological thought, too, there is a marked reaction against facile finalism. The development of “higher” forms of life does not make field ecologists less impressed with the “lower” forms, some of which have flourished for countless millions of years and are still going strong.

In time there is no “purpose” of the type that would eradicate the function or value of bacteria after “higher” forms have developed.

4. There is no established moral world order. Human justice is not a law of nature. Concurrently *there is no natural law limiting the endeavor to extend indefinitely the realm of justice and mercy as conceived in a society of free human beings.*

These Spinozic thoughts are important for striking a balance between the submissive, amoral attitude toward all kinds of life struggles and the shallow, moralistic, antagonistic attitude. Future societies in ecological equilibrium presuppose such a "third way." Human beings have a right to self-fulfillment, but when free and rational, they desire the same for all life-forms.

5. Good and evil are predicated in relation to beings *for* whom something is good or evil, and *for* a purpose. Something is good or bad in the sense of its being useful or detrimental. When the terms are not related to subjects and purposes, they are meaningless.¹¹ Thus interpreted, one may say that for the utilitarian Spinoza the expression "*x* is useful for *y*" is equivalent to "*x* causes an increase in *y*'s power," "*x* causes an increase of *y*'s freedom," and "*x* causes an increase of *y*'s perfection."

This accords well with the effort of field ecologists in general and social anthropologists in particular to understand each culture from within, as well as with mild forms of sociological functionalism. It contrasts with absolutistic moralizing on the basis of an unquestioned value code such as predominates in some (mostly industrial) societies. It does not *exclude* that some states of affairs are better than others for all persons or sentient beings, and that some purposes define goals with the status of autotelic value.

For Spinoza the "in itself" predicates express such values: "in itself," "free," "virtuous," "powerful," "self-caused," "active."¹² In *general* social anthropology, I suspect similar values are recognized or will be increasingly recognized.

6. Every thing is connected with every other thing. There is a network of cause-effect relationships connecting everything with everything else.

The ecologist Barry Commoner has called "All things are connected with all others" the first principle of ecology. Interconnectedness in the sense of internal rather than external relations characterizes ecological ontology. The maxim is misleading except when things are ultimately conceived as *gestalts*.

7. Nothing is causally completely inactive; nothing is wholly without an essence that it expresses through being a cause. In a limited sense, the whole of Nature is alive and one individuum (one *gestalt*).

Every being strives to preserve and develop its specific essence or nature.

Every essence is a manifestation of God or Nature. There are infinite

ways in which Nature thus expresses itself, and there are infinite kinds of beings expressing God or Nature.

The pervasive basic striving is no mere effort to adapt to stimuli from the outside. It is an active shaping of the environment. Successful acts create new, wider units of organism/environment. The basic urge is to gain in extent and intensiveness of self-causing. The term *self-realization* is therefore better than *self-preservation*, as the former suggests activeness and creativity, whereas the latter denotes a passive conservative or defensive attitude.¹³

8. Another name for the ability to act out one's nature or essence is power (*potentia*), the substantivation of the verb *to be able* (*posse*). It is widely different from "to coerce others."

The power of each thing is part of God's power. God or Nature has no other powers than ours. "Each and every existing thing expresses God's nature or essence in a certain determinate way . . . that is, . . . each and every thing expresses God's power . . ." (*Ethics*, IP36Pr). Without particulars, Nature's essence or power is not expressed. Nature is totally dependent upon the particulars. The above may be said to go against any hierarchical conception of existence. No subgroup of particulars expresses more of God's essence than any other. This is perhaps somewhat misleading, as Spinoza considers men to have more power than animals, and therefore they may be said to express more of God or Nature's power. Nature's power being infinite, however, the distance remains the same, namely infinite, for all particular things.

All beings strive to maintain *and gain* power. This need not be a striving to dominate, subdue, or terrorize. The establishment of symbiosis, "living together," rather than cut-throat competition marks a gain in power. At higher levels of self-realization, the self in some ways encompasses others in a state of increasing intensity and extension of "symbiosis."¹⁴ The freedom of the individual ultimately requires that of the collectivity.

9. If one insists upon using the term *rights*, every being may be said to have the right to do what is in its power. "Everybody exists through Nature's highest right (*summo naturae jure*), and consequently everyone, through Nature's highest right, does that which follows from the necessity of his Nature . . ." (IVP37Sch2).

"Ethics of ecosystems" and "environmental ethics" as proposed by ecol-

ogists tend toward the acceptance of a philosophy of Natural Right. The same holds of the movement among jurists to accept “legal rights for natural objects.” Justice William O. Douglas of the U.S. Supreme Court wrote in a dissenting opinion that legal standing should be accorded to “valleys, alpine meadows, rivers, lakes, estuaries, beaches, ridges, groves of trees, swampland, or even air that feels the destructive pressures of modern technology and modern life” (Stone 1974: 74–75).

Animals have the same kind of right to self-expression that we have. “That right which they have in relation to us, we have in relation to them” (*Ethics*, IVP₃₇Sch1).¹⁵ Rights as part of a separate moral world order is a fiction.

Field ecologists tend to accept a general “right to live and blossom.” We have no *special* right to kill and injure. *Nature does not belong to human beings or their states.*

10. There is nothing in human nature or essence, according to Spinoza, that can *only* manifest or express itself through injury to others.

The human attitude of violence and hostility toward some species of animals has made it impossible to study realistically their life and function within the whole. The field ecologist who deeply identifies with the species studied is able to live peacefully with any kind of “wild” animal—even with vicious sharks! This attitude harmonizes with Spinoza’s view concerning the free man (*homo liber*). His doctrine on the development of affects (parts III and IV of the *Ethics*) makes the field ecologist’s symbiotic attitude inevitable if the development proceeds far enough. It is prescribed in the very nature of human beings.

In what follows, I mention other Spinozistic thoughts that harmonize with those of field ecologists, even if the latter do not often develop them consciously.

11. The realization of union with the whole of Nature is made through the understanding of the particular things as a manifold of expressions or manifestations of Nature.

Ecological thinking presumes an identification with particulars in their internal relations, or gestalt relations, to others. The identification process leads deeper into Nature as a whole, but also deeper into unique features of particular beings. It does not lead away from the singular and finite. It does not lend itself to abstract thinking or contemplation, but to *conscious, intuitive, intimate interaction.*

Many astonishing discoveries by field ecologists owe to intensive studies of *individual* animals, which they give names to and in many ways perceive intuitively as individuals. Those who hire ecologists and those who use their publications have little interest in these individuals, unfortunately. Judged on the basis of *publications*, field ecologists seem on the whole to be contributors to nomothetic science and to concentrate on narrow “environmental” problems and “nature management.” In this respect field ecologists can be compared to artists who, for the sake of earning a living, are part-time art dealers. They are perhaps only quoted when talking about prices.

12. “Rationality” is wise conduct maximizing self-realization. It cannot be separated from perfection, virtue, and freedom. “Since reason does not demand anything contrary to Nature, it demands that everyone love himself, look for what is useful, . . . and that he strives to obtain all which really leads man to greater perfection . . .” (ibid., IVP18Sch). Since self-realization implies acts of understanding with increasing perspective, rationality and virtue increase with the development of understanding. The maximum is “an understanding love of Nature,” *amor intellectualis Dei*. This implies acts of understanding performed with the maximum perspective possible, or loving immersion in and interaction with Nature.¹⁶

An attitude toward nature as judged in terms of the behavior of industrial nations is rational in a very different sense. It is cleverness relative to extremely shortsighted, narrow interests. Many people assume that rationality is cold calculation in the service of such ends. Acquaintance with Spinoza’s conception means an immense widening and deepening of the conception of rationality.

13. Because of the interaction of things and understanding, things cannot be separated. The units of understanding are not propositions but acts. To the content of ideas in the “attribute of non-extension” there corresponds an act in the “attribute of extension.” Ultimately these attributes are attributes of the same thing, but the human way of understanding is such that we have to treat them separately.

The increase of rationality and freedom is, according to Spinoza, proportional to the increase of activeness, each action having the aspects of understanding and of a behavior of interaction. Relations to Nature are interactions; doing ethology or social anthropology exemplifies active relations on the level of cognition.

14. Since to gain in understanding expresses itself as an act, it is in its

totality a process within the extended aspect of Nature and can be studied as such.

This point is of prime importance to the methodology of ethology: the “world” of a living being is investigated through study of its manifest (“molar” and “molecular”) behavior. Spinoza furnishes ethology with a frame of reference completely devoid of the kind of uncritical mentalism and introspectionism that has often obstructed the study of cognition in animals and human beings.

The framework of relating Spinoza to general ethology is also suited to counteracting the tendency to conceive human knowledge as something existing independently of acts of particular human beings in particular situations—and stored wholesale in libraries.

The formulation of Spinoza does not point to any definite form of “behaviorism.” We are free to inspect critically any contemporary version. There is no reason to identify the concept of behavior with the versions put forth by J. B. Watson and B. F. Skinner, versions that leave out intentionality. Behavior cannot be photographed!

15. Most of the basic concepts used in the *Ethics* to characterize the human predicament are such as can be used whatever the cultural context. They are, furthermore, adapted to general characterizations covering smaller or greater parts of the animal, plant, and mineral kingdoms. Some of these concepts have already been mentioned.

Spinoza rarely touches on questions concerning animals, but when he does, he shows that his main concepts are not intended to apply only to human beings.¹⁷ He warns, however, against thinking that the joys of insects are the same as those of human beings. Each kind of living being is content with and delights in what corresponds to its nature or essence. Each kind has joys and, therefore, presumably also sorrows.

Among the important concepts that have an application wider than to the human species, one may note the following:

- perfection (cf. point 1)
- good and evil (cf. points 4–5)
- striving to express one’s nature or essence (cf. points 7–8)
- self-preservation, self-realization (cf. points 7–12)
- power (cf. points 8–10)

- rationality (cf. points 12–13)
- rights (cf. point 9)
- virtue (cf. point 12; cf. the expression *potentia seu virtus*)
- freedom (cf. points 12–13)
- understanding (cf. points 13–14)
- feeling (see *Ethics*, IIP57Sch)
- emotion (the passive ones are confused ideas)
- confused idea (see General Definition of Affects, *Ethics*, part III)

For all these terms it is true that the extent to which Spinoza's definitions apply is open to interpretation.¹⁸ Some are clearly intended to apply to at least a major part of the animal kingdom. Because of equivalences between many of them, the range of all of them can, without doing violence to Spinoza's texts, be made as large as suitable within ecology and the theory of evolution.

The wide applicability of Spinoza's *concepts* does not imply uncritical *statements* about similarities between human beings and other living beings. It ensures a broad continuity of outlook and the possibility of fighting human arrogance and cruelty.

These are my main conclusions:

1. Spinoza's fundamental conception of an all-embracing reality and humanity's place within that reality is today the most adequate conception in the light of ecological research.
2. It is congenial to the basic attitude of field ecologists toward forms of life and the various species.
3. Its wide acceptance, or the acceptance of conceptions consistent but not necessarily identical with it, could promote the aims of the ecology movement.

These conclusions are, of course, in need of some warnings against uncritical enthusiasm:

First, Spinoza's system with its complicated details is scarcely thoroughly comprehensible to anybody today and has no chance of being accepted by any substantial group of people.

Second, some of his opinions on animals and on other subjects of eco-

logical concern are neither in agreement with research nor congenial to basic ecological attitudes.

Third, his texts lend themselves to various interpretations. They can be used in a variety of reconstructions of his systems, some of which might go against or be indifferent to basic conceptions and attitudes of field ecologists.

Finally, there is no complete consistency of attitudes among field ecologists. This paper cannot speak for all, although it speaks for a substantial subgroup.

Spinoza and the Deep Ecology Movement

One of the strangest tasks in which a professor of philosophy can engage—voluntarily or more or less involuntarily—is to write a history of philosophy. My own, about 1,000 pages, is “neither fish nor fowl” because I could never solve the question of how to combine *history* of philosophy and *philosophy* of history.

Methodology of historical research is an entertaining subject. One learns, for example, how a historian’s account of a happening based on only one eyewitness account is more detailed and written with more confidence than the account of a happening covered by two or more witnesses. What the witnesses have said or written *normally* differs so much that a highly responsible historian’s account renounces some interesting details and is heavy reading because of “if,” “perhaps,” “perhaps not,” “unclear,” “contradictory,” “uncertain,” and a host of more complicated *reservations*.

Philosophy of history is a discipline of another character. It has no definite methodology, consisting of abstract discussion on the essence of history, of time and change, but also discussion about the dependence of philosophy of history on general philosophy. Good historians often repeat that they somehow must avoid being influenced by any definite philosophical system. That is impossible. In this century the vast discussions on the relation of dialectical materialism to philosophy of history and to actual historiography (the writings describing historical development) are at least as interesting and important as *historical* material on the metalevel persua-

This article was written in 1982 and was revised in 1991. It is being published here for the first time.

sively manifesting the general philosophical positions of, say, Aristotle, Shankara, Thomas Aquinas, Spinoza, Hegel, or Marx.

Established historians tend to say something like the following: the historical works by the ablest historians, who are from a general point of view more or less convinced dialectical materialists, do not reveal their doctrinal adherence to any definite general philosophical system. As one historian (Sverre Steen) said to his colleagues in a great humanist faculty, "You are fortunate: you can use your different and complicated professional jargons, and you even improve your standing by sticking faithfully to them. We historians (*id est*, historiographers) must somehow renounce all that."

The historian of *philosophy*, focusing on general philosophy, *not* on history of ideas as a part of the historiography of ideas, cannot or should not avoid asking himself or herself, When writing an account of the history of philosophy, from the point of view of which kind of general philosophy do I write? In particular, what kind of a philosophy of history, as a genuine part of general philosophy, do I subscribe to?

Obviously, my account of a philosophy, say that of Spinoza, will depend upon my own philosophy and my own general philosophy of history, my view of historical causality, and so on. As a philosopher, not a professional historian, I am not interested in hiding the dependence of my interpretation of the *Ethics* on my general philosophy, including my philosophy of history.

If there ever were a tendency of textbooks of history of *philosophy* toward agreement, not to speak of an asymptotic nearness of accounts, it would signify the disappearance of deep cultural differences, of deep differences in *Weltund Lebensanschauungen*. (I cannot avoid the German words for this. The English "differences in worldview and outlook on life" makes what is meant not serious, dramatic, and world-shaking enough.)

Because of the plurality of the basic views about what history *is*, and because these views are part of philosophy, there can be no definite history of philosophy. We easily get into interesting logical paradoxes if we proclaim that such and such is the only correct interpretation of Spinoza's texts, because one needs a solution of the problems in the philosophy of history. There are different fundamental premises of what history is, and hermeneutics or the philosophies of interpretation are many. Only if you say that only *your* philosophy is correct, without reasons at all, can you pro-

ceed to offer the “correct” view of what Spinoza intended to say in the *Ethics*. A different way of saying this: philosophy has no definite history.

Which philosophers of the past deserve to be called great? This question leads to another: who is competent to judge? Which philosophy do we use as a frame when answering? I am among those who do not feel competent even to answer what the question means, but let me use two possible indicators of greatness.

One indicator is that of being rediscovered and highly appreciated by successive generations of philosophers in different cultures. Another indicator is the persistent richness and diversity of interpretations of their texts. Spinoza’s texts are constantly reinterpreted by philosophers, poets, scientists, and others. Among the nineteenth century’s well-known influential interpretations we may mention those of Goethe and Hegel. I do not feel competent to pick out anyone in particular among the many distinguished interpreters in the twentieth century, but there is an encouraging variety—encouraging in spite of a certain tendency to appreciate conformity. Of course, we would all like to avoid textual and purely factual, historical disagreement, but by interpretation, I mean philosophical agreement.

In what follows I speak as a life philosopher, not as a historian. Study of the life and time of Spinoza is essential for any close study of the textual material, but for my purpose it can only be a necessary instrument. Also, strict systematization of Spinoza’s formulations in the *Ethics*—for example, sentences such as “. . . means the same as . . .”—can only be an instrument, a methodological technique, but my background is such that I find it natural to work systematically.

The history of interpretations of Spinoza’s texts shows the intimate relations to changing traditions. The religious character of his philosophy makes the history comparable to what Albert Schweitzer tells us in his *History of the Research on the Life of Jesus* (*Geschichte der Leben Jesu Forschung*). Four periods are fairly clear. The first, the time soon after Spinoza’s death, focuses on his atheism and his critique of the historicity of the Bible—the work of a pioneer in this field. Then we have the wonderful period when “everybody” declared themselves Spinozists—with Goethe as the greatest luminary. In the history of ideas, that period is usually called Romantic, but from an ecosophical point of view it should be called realistic. The Kantian inter-

pretation, heavily colored by its distinction between dogmatic and critical, should be mentioned. It was a useful distinction within professional philosophy at the time, but later it became clear that Kant had introduced, as all great philosophers do, a new form of “dogmatism” in the sense of proceeding from sets of unquestioned assumptions—presuppositions in the sense of Collingwood. Spinoza’s metaphysics was interpreted by Kantians as based on illusions. I do not think it is proper to speak of a Kantian tradition in interpreting Spinoza. A new, third period of interpretations, alive even today, started with Hegel and tended to find that, for Spinoza, the single, particular beings somehow drowned in the mighty substance. The long series of modern attacks on substance started with interpreting Spinoza as a substance-philosopher rather than a process-philosopher, like Whitehead. “The real is unchangeable, no dynamism, no time.”

A fourth tradition made headway early in the twentieth century with “the *immanence* of God (and substance)” as a key expression.¹ This is the tradition to which I belong. The most radical version might be thus formulated: “Without modes (singular beings) no God nor Substance.” Of course, a tradition of interpretation includes much more than interpretation of the first part of the *Ethics*, but unfortunately, I think, that part has been by far the most thoroughly studied within professional philosophy.

What is the major thing to be learned from history in this case? What can we learn from the wealth of significantly different interpretations by intensely engaged, learned Spinoza researchers? For me, it primarily suggests that new interpretations will occur in the future and that my own will be only one of a long series—forgotten in due time. What also seems to be learned from this history is that the interpretations ostensibly expressing “what Spinoza really meant,” or at least suggesting this, can be viewed as interesting *reconstructions* of his philosophy—interesting because they make his texts meaningful for contemporaries of the authors of the interpretations. Reconstructions, as here understood, take the texts, sentence for sentence, as seriously as does the historian, and the reconstructor is supposed to use all historical materials, but he or she need not take seriously the question, If Spinoza could read the construction, what would he think of it?

Many people who are engaged in the ecological crisis have been in-

spired “by Spinoza.” They read some of Spinoza’s texts or his comments on those texts. Some even read about Spinoza himself, but this does not mean that they try to find out exactly what Spinoza meant. Why should they? They make use of his image and his texts in their lives. What more could or should Spinoza expect of them?

Spinoza does not write about the beauty of wild nature. Perhaps he never talked about it—the coastline of the Netherlands, the storms, the varieties of light and darkness, the seabirds. There were people around him, Dutch landscape painters, who appreciated all this. Maybe he did also, but it scarcely influenced what he says in the *Ethics*. What he says about animals does not suggest he had any wide or deep sense of identification with any of them. Nevertheless, his *kind of* philosophy of life, its structure, is such that he inspires many supporters of the deep ecology movement.

One of the most inspiring aspects of the text *Ethica ordine geometrico demonstrata* is this: it outlines a total view. It outlines a set of ultimate premises in our thinking about ourselves and of the greater reality of which we are a part, and he applies it to concrete situations. There are other great thinkers who try to do the same: Aristotle, Saint Thomas Aquinas, Thomas Hobbes. Spinoza remains a unique source.

What is a total view? Here I speak of what might be called a general orientation with concrete applications. The general orientation will include basic attitudes, and the applications are at its most important level decisions to act in a certain way in concrete situations. It is *not* a philosophy in an academic sense. Any verbal articulation of a total view must inevitably be fragmentary, but include praxis.

The term *premise* is important. The relation of premises to conclusion, in order to be valid, must be logical at least in a broad sense of that very ambiguous word. For reasons and through motivations historians do not quite agree about, Spinoza chose an exposition of his total view with great stress on the relation premise-conclusion—analogue but not very similar to Euclid’s exposition of geometry.

In the *Elements* of Euclid, important and interesting theorems occur far from the axioms. These can be modified—like ultimate premises in systems of formal logic. There are many options. One need not start with a

principle of contradiction. The same applies to the *expositions* of the *Ethics*. If there seem to be inconsistencies between a sentence in part *x* and one in part *y*, a modification of the interpretation of the sentence in *x* is as relevant as that of the sentence in *y* even if *x* has formal logical priority over *y*, that is, even if *x* may be part of the system of premises from which *y* is derived. In what I have to say, this way of looking at formal priority and relevance is often made use of. We must not succumb to any irrational reverence for what is chosen as a premise. There is a metalogical theorem that is generally underestimated: a given conclusion *y* can always be derived from different sets of premises, even rather odd ones. For example, the conclusion “All whales are warm-blooded” can be derived from the premises “All whales are fish” and “All fish are warm-blooded.”

Increasingly, academic philosophers are reflecting the ecological crisis in their writings. The sources of philosophic inspirations are many: the works of Aristotle, Spinoza, Bergson, Heidegger, Whitehead. . . . Since I was seventeen years old I have had a special relation to Spinoza’s *Ethics*, but that does not imply that I believe his work can be of help to all who wish to articulate their basic attitudes. I believe there is need for deeply different verbal articulations of a total view, including the poetic.

Several terms in the *Ethics* are to my mind extraordinarily helpful when we try to express the fundamental views that have motivated the environmental activism of some of us. I shall in the next sections focus mainly on one of those terms, namely *amor intellectualis Dei*, “the understanding love of God.” The verb *intelligere* I translate as “understand.” The adjective *intellectualis* should not be translated as “intellectual”—a too intellectual term today.

The term *amor intellectualis Dei* and closely related terms had for centuries been theological terms within the rich tradition Spinoza modified in his own particular direction.

Among the wise historians who have studied Spinoza, I wish to point to Harry Austryn Wolfson. His account of the spiritual genesis of the famous fifth part of the *Ethics*, “on the power of the understanding or on human freedom,” is so far unsurpassed, as far as I know. He mentions many authors studied by Spinoza and presumably influencing him. Among them were Saint Thomas Aquinas and Leo Hebraeus. Wolfson says:

A model classification of love in which intellectual love is included is given by Thomas Aquinas. He distinguishes between (a) natural love (*amor naturalis*) which exists even in inanimate objects, (b) sensitive or animal love (*amor sensitivus animalis*), and (c) intellectual, rational, or spiritual love (*amor intellectualis, rationalis, spiritualis*). It is this classification of Thomas Aquinas which seems to be the origin of Leo Hebraeus' three-fold classification of love into natural, sensitive, and rational and voluntary (*naturale, sensitivo, et rationale voluntario*). The last kind of love is also called by him mental love (*l'amore mentale*), or, as in Thomas Aquinas, intellectual love (*l'amore intelletivo, intellettuale*).

(Wolfson 1958: 303–04)

Love of God being the highest goal in the religious life of man, Spinoza—carefully following the old tradition—furnishes this love with an appropriate place in part V of his *Ethics*. We might ask, though, if the so-called rationalist system invented by Spinoza allow him to put so much “theology” into it? His supreme intention seems to have been to stick firmly to reason but nevertheless to furnish his religious contemporaries with a strong faith as satisfactory, or more satisfactory, than theirs. This was a project that was unlikely to succeed as far as I can see. The result: a use of the term *amor Dei* that certainly admits various interpretations (see Naess 1986d). I shall stick to my consistently immanent interpretation of *Deus* and hold that *amor intellectualis* is directed toward “God, *not* as infinite” (*Deus non quatenus infinitus*, as in *Ethics*, VP36.) It is directed toward individual finite beings. My minimum thesis here is that at least for one hermeneutically justifiable interpretation, the understanding of God, as part of the third and highest way of cognition, is directed toward individual finite beings. This position requires discussion of the term *Deus*. I shall need to discuss the thesis of immanence before returning to the *amor intellectualis*.

The *Ethics* is full of occurrences of the term *Deus*. How is it that Spinoza was conceived as a diabolically clever atheist? It is very understandable. It was at his time inevitable.

God is said to be maximally perfect (*perfectissimus*). God is the cause of everything, even himself. Nothing at all can be conceived except through God. This might be thought to be enough to calm the theologians, but they were not led astray by Spinoza's terminology. They knew, for example,

that Spinoza was using the adjective *perfect* (*perfectus*) in an old way in which it basically meant “complete” (from Latin *per*—and *FAC*; see *Ethics*, part IV, preface). Wolfson (1958: 222–23) mentions “the original use of the term ‘perfection’ in the sense of ‘completeness’ and of not lacking anything required by one’s own particular nature.” The nature or essence or power of Spinoza’s God is complete to the greatest possible extent—by sheer definition. (However, Spinoza does not say anywhere that “He” is good, and there is nothing personal about “Him”!)

Perfection is not a term that is introduced in the *Ethics* by means of a separate definition. When not applied to Nature, it admits of degrees. Joy is an emotion through which mind is said to become “more perfect” (IIIP11Sch), more whole through more activeness and power. Whatever its connotation, “more perfect” cannot be separated in denotation from “more powerful.” Compare the proof of proposition 61: “Joy . . . is the emotion through which the power of the body to act, increases or is furthered.” The relation to activeness, and to understanding, is not only intimate, it is internal. The more perfect, the more active and the less passive (VP40). In short, “more perfect than” cannot, in denotation, be completely separated from a number of other basic “in itself” relations. Among basic kinds of sentences that Spinoza used to express his system in the sense of an interconnected set of expressions—sentences such as “*x* is in itself,” “*x* is conceived through itself,” “*x* causes *y*, partially or totally,” and “*x* is more perfect than *y*”—there is no place, so far as I can see, for a God that has completely different properties from those of the “in itself” family. On the other hand, the theorems 5P32–5P35 seem to me difficult to understand from the point of view of immanence. They are too close to transcendental religious views entertained by Spinoza in his younger years. The *Ethics* is not a finished work, not a crystal.

There is an expression that more than any other has supported the concept of the immanent God: “God or Nature” (*Deus sive Natura*).

Some Spinoza students have supposed that Spinoza simply identified God with nature in a modern sense. This is clearly untenable, but the expression needs discussion, which will be offered in a later section. Suffice it here to mention a conclusion: the God of the *Ethics* may be identified essentially with Nature-as-creative (*natura naturans*)—the creative aspect of a supreme whole with two aspects, the creative and the created (*natura natu-*

rata). The latter are the existing beings in their capacity of being there, temporarily. There is creativity but not a creator. The verb “to nature” (*naturare*) covers both forms in its dynamic aspect. A comparable verb today would be “Gaia-ing,” a term suitable for those who accept the most radical versions of the Gaia hypothesis: that the planet Earth is a self-regulating living being. Clearly, such ideas are inspiring for radical environmentalists.

Immanence of God was, of course, unacceptable to the theologians of Spinoza’s time. The term *atheist* referred to the denial of the God of the Old and New Testaments, not of every kind of God, and Spinoza was correctly classified in their terminology as an atheist, and a diabolical one insofar as his constant eulogy of God masked his basic terrifying aberrations.

When I contemplate the life of Spinoza I have, like many others, a suspicion that he never completely gave up his Jewish faith, the transcendent God he loved in his youth. As a result, he may not have managed to develop a system in which God clearly and consistently occurs as immanent in the particular beings we meet in our daily experience.

From God’s essence follows his existence, but *only* “existence” as essence: “. . . God’s power is nothing except God’s active essence” (*Ethics*, IIP3Sch). Its manifestations are the “modes,” the individual beings. This is implied by his system, but sometimes Spinoza seems to feel he needs more of God’s power than mere essence, however eternal. The transcendent God of religion seems to appear from time to time in his texts and threatens the consistency of his consistently philosophical thinking and articulation. The threat is most conspicuous in part V of the *Ethics*.

It is in accordance with the immanence theory that every actually existing being partakes in the infinite power of God. This power, the only power that exists, is distributed unequally among natural beings, with human beings having the most power. As we shall see, this inequality plus the theorem of equivalence between power and right implies inequality of right (or rights), with human beings having “more right” than other beings. Without careful delimitation of the terms *potentia* and *ius*, there is a source here of incompatibility with certain radical environmental views.

The textual basis of the theory of immanence may be said to start in part I, with IP25 and IP26. According to IP36 nothing exists from whose nature some effect does not follow. The proof of IP36 relates every single

thing to God. “Whatever exists expresses in a definite and determined way (P25Cor) God’s essence or nature, that is (IP34), whatever exists expresses in a definite and determined way the power of God. . . .”

The texts of the *Ethics* furnish no basis for assuming that God expresses a nature, essence, or power in any other way than through each existent being.² From this, and what has already been said, I draw the following conclusion: *amor intellectualis Dei* is a kind of love of the existent particular beings, that is, parts of the total richness and diversity of life-forms on Earth, and in other regions of the universe.

In a sense, God as *natura naturans* is nothing else than a term expressing the unequally distributed, intimately interrelated creativity manifested by particular beings. The creativity of these beings, however modest, justifies calling them living beings. Spinoza’s so-called panpsychism does not say much more, as I see it.

Would not the above interpretation render God finite, and would it not go directly against a way Spinoza would accept? No, because of the infinite creative aspect of the whole, which embraces *natura naturans* and *natura naturata*. Most students of Spinoza would presumably answer in the affirmative, but then they overlook a number of statements in the text of the *Ethics*. In IIP9, Spinoza talks about God “not as infinite” (*non quatenus infinitus*). If finite, however, God will have an aspect of “modes”? Surely Spinoza talks of the modified God (*Deus modificatus*), of God being affected (cf. Naess 1981). (See especially IIP9 and IIP11Cor.) God as *natura naturans* does not exist as something separate from *natura naturata*.

In short, the term *Deus* in the *Ethics* has two functions. One is to point toward an infinite whole with infinite dimensions of creativity, not *in* time, but making time possible. The second function is to point to the manifold of finite creative beings manifesting and expressing the parts of that whole. At least, this is one way to conceive and feel what the text of the *Ethics* suggests. The finite, temporal beings are creative, *causa adequatae*, insofar as they are in themselves, *in se*.

By definition—or better, almost by definition—those who support the deep ecology movement are, like Spinoza, in part motivated by basic premises of philosophical or religious kinds and feel that all living beings have intrinsic value. It makes sense to care for these beings for their own

sake, as creative beings. Clearly, the supporters may appreciate something like the above verbal articulations of deep attitudes.

Acting with part of the power of the immanent God, and knowing their own action, human beings know God adequately. "The human mind has an adequate knowledge (*cognitio*) of the eternal and infinite essence of God." Interpreters have difficulty here. What is "adequacy"? If God is the creative power completely distributed among living beings, and human beings know, are conscious of, this creativity itself, one may say that their knowledge of God is adequate (cf. IP34). Since the only things to be known as actual existing beings are the finite particular things, "the more we understand (*intelligimus*) individual things, the more we understand God" (VP24).³

From the point of view of immanence, human understanding of the highest "third, intuitive kind" not only has a cognitive aspect but is more specially a relation of love. It is a special kind of intuitive understanding of particular things that involves an internal love relation. The second kind, culminating in scientific knowledge, does not have that relation to love, at least not as an internal rather than an external relation.

In his eagerness to convince his contemporaries that his philosophy furnishes all the satisfaction of the Jewish and Christian faiths, Spinoza perhaps stretches too far. The reader easily gets the impression that a life centered around the love of God must be a life of unworldly contemplation, a life different from one centering around the loving understanding of particular things, as was, for example, the life of Rachel Carson. *Amor intellectualis Dei* implies active loving concern for all living beings.

Spinoza was a socially and philosophically active person. One need not, of course, be interested, as Rachel Carson was, in every living being along the shoreline. One may concentrate on human beings, as Gandhi did. The essential point is that the third kind of knowledge concerns particular beings, and that every one of them in a basically egalitarian way is an expression of the immanent God, part of *natura naturans*, Nature with a capital N, as well as of *natura naturata*.

One may say that the understanding love of God, and the third (intuitive) way of cognition, concentrates on the content of reality, not its abstract structure.⁴ The abstract structure is investigated through the second

way of cognition. Einstein and others obviously delight in God's thoughts in the form of abstract, but beautiful, laws of nature. Mathematicians delight in still more abstract structures. Spinoza, presumably, was delighted to study Euclid. In all this, reason operates, but it is also a form of reason that leads us inevitably to the third kind of cognition (VP28): the third way is rational in the sense that reason and reason alone leads us to this third way.

A supremely important rule, which fits neatly with the deep ecology slogan "Rich life with simple means!" has to do with the function of reason as a servant of the third way: what is done that is not in harmony with ultimate goals of life cannot be reasonable. It is not enough to be reasonable and effective as means toward a subordinate goal. One must ask, Is this subordinate goal consistent with, or better, conducive to, the realization of ultimate goals—situations with meaning in themselves?

Love of the immanent God is love of God's expressions, not of a separable God. A being expresses God's nature or essence; therefore, love of God cannot be different from love of such a being. What, though, is God's nature or essence? Proposition 34 in part I answers: "God's power is God's essence itself"—as already said. In the proof Spinoza says that through God's power God and every being exist and act more or less freely. Because God is not separate from God's expressions, causality from God to God's expressions is immanent, not the causality of our natural science. When a human being loves God "intellectually," it cannot but be a love of one expression directed toward another expression as an expression of God, and as such of intrinsic value.

There is a basis for assuming that the particular beings understood the third way are understood in the light of a great, infinite whole, the creative aspect of that whole. The general structure of the *Ethics* is such that what is said about human beings basically applies to what is said about beings in a fairly general sense. Note the use of "consequently" (*consequenter*) in the proof of IVP4: "The power through which particular beings, and consequently human beings, conserve their being, is God or Nature's power itself, not in so far [God or Nature] is infinite, but in so far [God or Nature] can be made explicit through human actual essence."

Supporters of the deep ecology movement like to say that they support ecocentrism, not anthropocentrism, and Spinoza certainly offers high-level

premises for what has sometimes been labeled biocentric or ecocentric egalitarianism. I think these Latin and Greek terms are useless in serious discussions, but they may be helpful in offering some vague idea of a kind of basic attitude. Spinoza tried something immensely difficult, namely, to articulate with some preciseness certain basic attitudes.

Spinoza's holism, implied—vaguely implied?—all through the *Ethics*, is secured through his use of the term *God*, and by the generality of his theorems. There is a sentence in his work *On the Improvement of the Understanding* that many people try to use as a key to understanding Spinoza's system: he says explicitly that he strives to attain a stable mental state characterized by the knowledge of the union that the mind has with the whole of nature. This is together with others, not alone: "to strive that many acquire it with me." He envisages a society conducive "to the attainment of this character (state) by the greatest number with the least difficulty and danger." It necessitates a healing of the way we understand things. A way of caring understanding? In a sense, a movement toward "green communities"? His statements are not incompatible with such a movement. Of course, if supporters do find something inspiring here, it is not in the belief that Spinoza as a person would be supporting what they do, but rather that a kind of philosophy like his could support them.

Is the foregoing the *most plausible* interpretation of the text of the *Ethics*?

There cannot be any *most* plausible interpretation of the *Ethics*. Hermeneutics, as I understand it, precludes that. My job amounts to a reconstruction of parts of the system rather than to finding out exactly what the complex person Spinoza in a certain period of his life intended his words and sentences to mean. The development and structure of the *Ethics* are very complicated, to say the least. We get a good impression of this by reading the excellent, but formidable volume by M. Gueroult (1968) on how to interpret part I—one-fifth of the *Ethics*. It is difficult for the reader to "feel at home" with Spinoza at such a level of complication. The whole is lost. The level of complication of some of Bach's fugues does not destroy the possibility of their being experienced as an integrated whole. Bach was a genius, as was Spinoza. The fugues are short; the *Ethics* is short. (Written in terms of Gueroult, the *Ethics* would be at least ten times as long.)

A question arises here: when do we write about Spinoza as professors of

academic philosophy and when do we write as philosophers on our own—however modest in our pretensions of originality? The great philosophers we write about in our textbooks on the history of philosophy inspired each other, often in a negative way: they felt a contrast and a need to articulate their own vision. Their freedom, or license, of interpretation of the others is astonishing from an academic point of view. The way leading Stoics interpreted Epicureans and vice versa, the way Hegel interpreted Hume, Marx and Kierkegaard interpreted Hegel, Kant interpreted Hume, Heidegger interpreted metaphysics—do scarcely bear pedestrian academic scrutiny. Kant would probably have flunked any current university examination on Hume. He read very little, and he ignored the *Treatise of Human Nature*. Undergraduates could have corrected him.

I am not defending one-sidedness and wildly implausible interpretations, but I am insisting on the supreme value of working out things *under the inspiration of the texts*. As philosophers, it is our obligation to try out tentative answers to the questions we find urgent and inevitable to answer. This means ultimately to work out reconstructions rather than detailed interpretations of the great philosophers. Gueroult should be studied carefully, but he cannot function as a guru.

Philosophical and religious sources have played and will continue to play a role in environmental activism. The close relation to decision in concrete conflict situations precludes highly technical and complicated interpretations. One of the most characteristic, short answers to “Why is it so important to protect such and such from extinction here in your neighborhood?” runs like this: “They belong here.”

In the deep ecology movement, as in the other two great contemporary movements, the peace movement and the social justice movement, progress in part depends on the active participation of a minority able to use part of their time and energy to serve a great cause. Reliable news about the ecological crisis is nearly always bad. It is difficult not to become frustrated and join the many who passively deplore the ongoing destruction. Among the many sources of inspiration to enter and continue *activism* we have at our disposal the teaching of Spinoza.

Activeness—a better term than *activity*—makes for joy, according to Spinoza. It expresses the nature of the active being, the being as far as it is

in itself (*in se*), and the more directly it expresses its unique nature, the greater the joy. Sorrow comes from passivity, *lack of* active expressions. There is an accident, you spontaneously engage all of yourself, wholeheartedly, and your own pain is not felt; there is a joy if the activeness is intense and comprehensive. The grave frustration and sorrow that millions feel today concerning the ecological situation can be overcome, and is being overcome, by jointly entering into active relations, taking part each according to his own capacity and special interest. In the deep ecology movement the activeness is supposed to be directly motivated by our *ultimate* attitudes toward life and meaningfulness ("level 1"), an activeness that follows *from our very nature as a whole*.

Crucial here from a systematic point of view is the definition of activeness in part III of the *Ethics*: "I say we act, when something in us or outside us happens, of which we are adequate cause, that is (according to the foregoing definition) when something follows in us or outside us from our nature, something that can only be understood clearly and distinctly from it alone. . . ."

The term *alone* is crucial here. It is a supreme manifestation of freedom and creativeness. When we are active and free (*liber*) in this way, we are determined in our action by our (innermost) nature. We do something that is determined, completely determined, but freely, because determined by our *own* particular, unique nature. We do it exercising part of the power of God or Nature, and we *cannot escape* being joyful, whatever the tragic circumstances. The whole of part V centers on how this activeness or freedom can be expanded, increased, and deepened. There is no freedom without activism, no activism without freedom.

In the expression *Deus sive Natura*—Nature written with a capital *N*—the connotation of the two words is not the same, but the denotation is. There are not two separate entities, two existent somethings, not even one. Sameness of denotation does not imply general substitutability of the two terms, but sometimes substitution offers new insights. Let us substitute "Nature" for "God" in VP15: "He who clearly and distinctly understands himself and his affects, loves Nature, and the more so the more he understands himself and his affects." It is the passive affects—hatred, jealousy, baseless hope, mindless anger or sorrow (*tristitia*)—that are the obstacles, the immaturity of human beings.

The same substitution makes the introductory passage of the proof of proposition 20 run as follows: "This love of Nature is the highest good we can strive for in harmony with the dictate of reason, and it is common to all human beings, and we desire that all would enjoy it."

We cannot, of course, identify Nature (with a capital N) with the set of particular physical and nonphysical things, including suffering human beings and animals. Such an atomistic view forgets that *natura naturans* and *natura naturata* together make an integral whole: the creative and the created are internally (insolubly) related. We are not invited to love the cruelty in nature.

Gestalt thinking and the concept of "internal relations" are useful in making precise the interconnectedness of parts and whole. However, I cannot go into that here.

Every single being deserves understanding love—this can be plausibly inferred from theorems in the *Ethics*. Spinoza, like other great philosophers, changed attitudes and terminology through the years, however, and there are still passages in the *Ethics* suggesting that the unchanging, permanent, eternal is the supreme and most satisfactory object of love and veneration. Thus, a sequence of theorems in part V, beginning with theorem 17, seems to belong to a fairly early period of Spinoza's thinking. Love of God was in the early periods probably seen in contrast to love of finite, "mortal" particulars. In some sections of part V, love of God is still somewhat similar to the love of a transcendent God, a God that has a power of his own, beyond and apart from the limited power of individual beings.

Let us substitute "God or Nature" for "God" in the proof of VP17: "The highest virtue (*virtus*) of the mind is to understand God or Nature, or to understand beings in the third way." The translation of *virtus* as "virtue" is today misleading, but there are no one-word translations available. The term has to do with capacity, like the Greek *areté*. Spinoza shunned moralizing.

Some might say: Spinoza wishes to contribute, as a green activist, to organizing people and to contribute, using nonviolent means, to the establishment of a green society. The consciousness of the members will be characterized by awareness of their unity with nature, and they will live according to that insight.

This is going too far, but clearly the words of Spinoza do not diminish the feeling that a total view having important analogies to his own is com-

patible with contemporary total views in part inspired by the ecological crisis—that is, analogous to an ecosophy. What would Spinoza in heaven say to this? Perhaps he would make a scornful remark. His personal applause, however, is not *necessary* for us.

The very famous passage in his early work on human understanding, specifically his utterance about the union of the mind with nature as a whole, has led many to interpret Spinoza as an advocate of *unio mystica*, that is, as a “mystic.” In the *Ethics*, on which I am focusing, there are no similar utterances. I find it plausible that in his later years he experienced less mystical nearness to a supreme whole.

Nature as conceived by many ecologists, and expressed philosophically by James Lovelock and others, is not the passive, dead, value-neutral nature of mechanistic science but is akin to the active, “naturing” nature of Spinoza. It is all-inclusive, creative (as *natura naturans*), infinitely diverse, and alive in the broad sense of Spinozistic so-called panpsychism. It manifests abstract structure, namely the laws of nature, simulated by such models as Einstein’s field equations. Goethe reaches deeper, perhaps, when he warns us: “Die Natur hat weder Kern noch Schale, alles ist auf einem Male.”

Because “everything affects every other thing,” we cannot predict the long-range effects of our particular actions and policies. This is in harmony with Spinoza’s warning that we should not think human beings capable of ever fully understanding the “common order of nature.” Very much less is needed to appreciate the overwhelming creativity of Nature. The *practical* importance of the intrinsic-value principle of deep ecology owes mainly to the imperfection and fragmentariness of our knowledge of the common order of nature. Calculations of “usefulness” are uncertain.

Nature (with a capital *N*) is intuitively conceived as perfect in the sense that Spinoza and ecologists hold more or less in common. It is not a narrowly moral, utilitarian, or aesthetic perfection. Nature is perfect “in itself” and not insofar as it serves specific human needs. Nor is it moral or immoral. It is amoral.

“Perfection” in Spinoza’s medieval Latin means *completeness* of some sort. Does this include suffering in nature? There is no reason to deny or underestimate suffering, but neither should its relation to perfection be overestimated. Stephan Lackner (1984) has published a highly stimulating

book concerning that. Some ecologists seem to ask us to refrain completely from intervening to help needlessly suffering animals. As human beings, however, we have obligations, primarily toward suffering human beings, but also toward nonhuman beings. There are, of course, inevitable clashes of norms in this area, but some norms in the sense of general guidelines are fairly clear. We may refuse to passively witness what we consider unnecessary suffering. The predators kill, but we are free to intervene in some cases.⁵ I don't know how the text of the *Ethics* may lend itself to this question of the deep ecology movement.

Spinoza made use of all the central philosophical terms of his time but defined them in his own way, and he has the tendency to relate each of them to each of the others in a characteristic way. Without studying that very special way, I do not think that one can form an adequate picture of his *system*. To act in the sense of expressing one's own nature is to act freely, determined only by one's own nature and not arbitrarily or by chance—but of course not determined in the sense of fatalism.

An act causes something adequately, and every being causes something this way. That is, every being shares, as we have pointed out earlier, in the creativity of God or Nature. Every being is not wholly in something other (*in alio*) in the terminology of Spinoza. Power is power to act, that is, cause adequately, and an increase of this cannot but increase the level of virtue. (Here Spinoza fundamentally differs from Hobbes.) The relation of *virtus* to other key terms is fixed through seventeen equivalences.⁶

In contemporary philosophy of politics, a distinction is often made between "power over" (coercive power) and "power to." Spinoza's term clearly refers to a kind of "power to."

To be, and therefore to act, in oneself (*in suo esse*) is one of the basic notions in the *Ethics*. It has a clear connection with self-preservation, but for important reasons Spinoza prefers a different term, *perseverare in suo esse*. The relation of the ecosophically important notions of self-realization to the Spinozist *perseverare* justifies a closer inspection of terminology and the significantly different concepts at hand.

The principle of self-preservation as exemplified and as defined by philosophers and biologists at least since the Stoics had a main component

of defense against external threats. However, it also covers behavior and structure adopted to maintain inner equilibrium under changing environmental conditions. Conceived in this way, the principle has acquired renewed importance through the deep ecology movement.

The notion of “persevere in one’s (particular) being” is useful in argumentation against arbitrary manipulation of genes in animals and human beings. The more or less “instinctive” reluctance, developed through millions of years, to interfere with the particular beings may find philosophical justification at this point. Affinities between Stoic philosophy and deep ecology attitudes have often been noted, but the differences are clear: the latter implies social and political activism directed toward conditions significantly different from those in all or most countries. There is no quietism, and no lack of passion in the deep ecology movement. Insofar as it has affinities with Spinoza, it favors the strong positive emotions required to advance in the level of freedom. Of course, most supporters of the movement have never heard about Spinoza, and some might dislike what they hear.

The increased *level of* perseveration seems to be proportional to the increase in the eight or more *in se* predicates: power, freedom, virtue, and so on. The expression *quantum in se est*, “in so far (the being is in itself),” is central, not only in the *Ethics*, but also in the *Theological-Political Treatise* (cap. 16): “It is a law of all nature (or: a highest law . . .) that every being endeavors (*conatur*) to persevere in its state, in so far as it is in itself.” The translation “to preserve” is misleading.

Wyld (1932) has formulated the dictionary meaning of the English term *persevere* as follows: “to persist doggedly and with determination, diligence and patience, with the object a) of completing a task; b) of overcoming difficulty or opposition; c) of attaining a purpose, securing an aim, etc.” C. T. Lewis (1951) translates the classic Latin term *perseverare* as “to abide, adhere strictly, continue steadfastly, persist, persevere.” An example is *navis perseveravit*, “the ship kept on its course.” We choose a course and persevere.⁷

The term *perseverare* in the *Ethics* must, of course, be conceived more abstractly and generally, but I think the English term furnishes an adequate basis. The dynamic character of Spinoza’s thinking is better served than by use of, for example, *preservation* or *conservation*.

Human power to act is proportional to the extent to which we are the adequate cause of something, which again, according to the definition of adequate causation, is *proportional to the extent* to which what is done follows from our nature or essence *alone*, and not from any *pressure* upon us. When we act in the sense introduced, we persevere in our being or essence. A thing that perseveres in its being “in so far as it is in itself” perseveres in its essence.

“To persevere in one’s being” is the same as “to persevere in one’s essence” and not to persevere in someone else’s essence, says Spinoza. Altruism in the sense of caring for others or doing things for the sake of others does not imply shedding one’s essence and jumping into the essence of something else. A being is freer the more it acts out of, or is caused by, *its own nature alone*. It is a question of maintaining identity, not of strengthening ego or egocentricity. Spinoza’s doctrine at this point, with its undermining of the standard conception of altruism, furnishes an excellent *kind of* basis for a deep ecology concept of identification with every living being. I say “kind of” because of the opportunity for a variety of conceptualizations.

The term *perseverare* acquires its function from its position within a structure that is unique to Spinoza’s system and different from the function of related terms in other philosophers’ systems. It would lead us astray, though, if we adopted *self-perseverance* as a fundamental term of Spinoza’s system. No single term is fundamental in his system. There are at least a dozen that are ultimates from a systematic point of view. Therefore, we cannot overemphasize the importance of keeping the internal relations of a manifold of terms in mind. If we do not, the system falls apart and becomes a disorderly heap of postulates.

Taken at its crudest, the endeavor to continue somehow to survive is of little systematic interest. Moreover, taken to imply a resistance to change—a striving to keep on just as one always has done, it is clearly un-Spinozistic. There is an urge for change. Human beings, and others being, are always “on the way”—without change of essence. The dynamic, interactionist view of the self makes it inevitable to interpret a basic principle of *conatus* as a striving for self-causingness, activeness, power. We might connect it more specifically with the striving for perfection, for wholeness, completeness, self-madeness, as suggested by the special use of the term in

the *Ethics*. The use of *conatus* in VP28 is instructive: “the *conatus* or desire to understand things in the third way of cognition.” Love of particular beings, *amor intellectualis*, is not a luxury indulged by the few, but a bone-hard human reality.

The proof of proposition 20 in part IV offers an excellent occurrence of grading *conatus*, perseverance, conservation, power, and virtue:

Virtue is the very power of man, and is defined solely by the essence of man, that is, which is defined through solely the striving by which man strives to preserve in his being. Therefore, the more each strives to conserve his being, and is able to do so, the more he is endowed with virtue. And as a consequence, to the extent a man neglects to conserve his own being, he is wanting in power.

And, of course, wanting in virtue. One is reminded of the Greek term *areté*, conventionally translated “virtue” but lacking the specific moral atmosphere of “virtue.” Spinoza’s antimoralistic attitude may remind one of that of Hobbes, but not the general gentleness and, in a broad sense, his ethical approach. In the ecosophy I feel at home with, a fundamental norm can be formulated using one word, “self-realization!” The nearest term in the terminology of the *Ethics*, *to persevere in one’s self*, can be interpreted in the direction of “express one’s self,” “self-fulfillment,” “realizing one’s potentials”—“self-realization.”

The self can be said to comprise that with which one identifies. The identification may be superficial or deep, the scope of identification narrow or broad. The person, I suggest, who is “all-round” mature cannot avoid identifying with every living being—seeing himself or herself in every being. If the two persons are Anne and Tom Taylor, clearly they do not see Anne and Tom in every being. There is *something* they see in themselves *and* in any other being. What something? It is tempting to mention one particular metaphysical theory specifying the x . I refer to the Bhagavad Gita’s announcement: “Those who are equipped with *yoga* look on all with an impartial eye, seeing *Ātman* (the Self) in all beings and all beings in *Ātman*” (chap. 6, v. 29; Gandhi’s translation).

Nine out of ten news items about the ecological crisis are potentially discouraging. It is understandable that some young supporters of the deep ecology movement despair, grow pessimistic and increasingly passive—

this in spite of their feeling of certainty that the goal of the deep ecology movement is in harmony with what they fundamentally and intuitively stand for. They try to “persevere in their being, in so far as they are in themselves,” that is, insofar as they are able to act as integrated, powerful people—in the Spinozistic sense of “power.”

People motivated by the positive (active) affects and not the negative (passive) ones have the same ultimate aim, taking part in the same highest virtue of the mind (VP25, proof), and are therefore capable of joining together in *peaceful communities*. The stronger these joyful affects are, the better. Spinoza is a rare bird among philosophers: he makes a significant advance along the road to freedom by relying on the strength of positive feelings! Reason points out the way to go, but only the strength of the feelings can do the job, as we travel along a long, difficult trail, each on a separate trail (*svamarga*), the way of one’s own self.

There are—perhaps I should add “of course”—some sentences in the *Ethics* that are difficult for supporters of the deep ecology movement to digest. A passage in part IV (P37Sch) seems to rely on a curious theorem: the less the nature of people is similar, the less easy it is to live together, and the less they are useful to each other. This, I think, can be inferred from what he says about the nature of different living beings. From such a point of view he talks about animals that have feelings but, he says, have such a very different nature from ours that they cannot be our friends and members of our communities. He does not say that they cannot be our friends because they are inferior or lower. Their nature is too different.

Part of what Spinoza says in this connection is different from what supporters of the deep ecology movement tend to say. What I refer to is Spinoza’s statement that animals have the *same* right in relation to human beings as human beings have in relation to animals, but that human beings have *more* right than animals. Many supporters of the deep ecology movement say that animals have as much right as human beings. There is an equality of right.

I tend to disagree with any quantification here. Animals and human beings may be said to have at least *one kind of right* in common, namely, the right to live and blossom. The concept I prefer if I use the term *right* in this

connection is such that it does not warrant quantification. If I intentionally kill a mosquito, I violate its right, but not because I, as a human being, have more right. If Spinoza relates to another being with *amor intellectualis*, can he nevertheless deny doing things for *their own sake*? In modern terminology, *intellectual* love would not imply attributing intrinsic value, but that is irrelevant here. Spinoza does not use the term *right* in such a way and he cannot avoid quantification.

I find it strange that some people seem to think it paradoxical that theorists of the deep ecology movement tend to cherish Spinoza. He talks about animals with so little respect, they say. The inspiration does not depend, though, on reading his texts as a holy scripture. We do expect him to be influenced by at least some of the dominant opinions among his contemporaries. We have the right to treat animals “as is most convenient for us,” he writes in one of his “notes,” not as part of a theorem. If, however, some of us have advanced farther than others on the way to the application of the third way of knowledge, *amor intellectualis*, the third way will have priority over conveniences. Animal factories that violate the dignity of animals cannot be operated in conformity with the active affect.

There is among Spinoza’s *terms* none that corresponds to the important term (*process of*) *identification* by which human beings attribute intrinsic or inherent value to every human being and to many, or all, categories of non-human beings. The structure of his system is such that all beings take part in the power of God. Because of the equivalences joining *power* with other terms, *the structure* is compatible with the intrinsic value and the self-realization views. The *content* of the note attached to IVP₃₇ is not. For my use of this note in Spinoza’s text, it is enough to add to it: what partakes in the creative power of God has intrinsic value and this applies to the total manifold of creatures. In this way the passage from the basic (“level 1”) announcements of Spinoza to the (“level 2”) eight points of my proposed Eight Points of the Deep Ecology Movement is not difficult (Devall and Sessions 1985: 70).

Supporters of the deep ecology movement have been increasingly involved in social and political conflicts. Since the controversies on pesticides, the pervasiveness of social and political obstacles has made supporters more pessimistic about the near future. The question must here be

raised, Can something be learned from seventeenth-century Spinoza about the frustrating political situation in the twentieth century? Not very much, I am afraid.

An understanding of Spinoza's political opinion is clearly dependent on what he says in the *Ethics* and other works, and on the special social and political conditions in the Netherlands at that time. I shall here limit myself to some remarks on the relations between the *Ethics* and his social philosophy insofar as they are fairly independent of the special conditions in his time. They concern primarily some of the central terms mentioned in the foregoing.

Adequate ideas are available only through the second and third kinds of cognition, the rational and the intuitive. These two kinds do not conflict, but the rational teaches us only what is required in our quest to understand in the third way, that is, ultimately what is necessary individually, socially, and politically to reach a peaceful community.⁸

The social situation shows how far from reaching utopia we are: most people are, according to Spinoza, led by passive rather than active affects, and they choose leaders who seem to help them reach goals derived from these passive affects. This means that even a democracy may fail to change policies.

Spinoza grew increasingly pessimistic, and his opinions changed over the long period in which he worked on the manuscript of the *Ethics*. The last time was in 1674, two years after the politically catastrophic year of the assassination of Jan de Witt. Spinoza was politically active, and the depressing events of 1672 may have changed some of his ideas—he was led toward general pessimism about the future. It did not, however, influence the main structure of the *Ethics*, the propositions and their proofs. It is more likely that it affected some of the notes (*Scholiae*) put in between the propositions.

It is not the personal opinions, but the main body (and the general structure) of the *Ethics* that has inspired, and will in the future inspire those who, on the basis of their fundamental beliefs and attitudes, try to contribute, however modestly, to the solutions of the ecological crisis. It is clear to those who teach Spinoza at the universities that the appeal of Spinoza is close to universal. It is not astonishing that he is sometimes called THE philosopher.

Spinoza had a vision, a small set of intimately connected deep intuitions. He clearly saw that conveying the content of his vision, and of all main views dependent on it, would not be possible in a small number of words. The argumentation in the *Ethics* uses many words and many levels of the premise-conclusion relation. The intimacy of the relation between the key terms enables the careful reader to get a feeling of the basic intuitions Spinoza tried to elicit in us.

Gestalt Ontology and Gestalt Thinking

In what follows I shall try to explain a way to conceptualize human spontaneous experience of reality. How are things (in the widest sense) related to one another in spontaneous experience?

The term *spontaneous* needs a couple of comments. If I say “The water looks yellow” or “The water seems yellow,” I mostly imply that perhaps it is not really yellow. As the basis of the utterances, there has been a spontaneous experience expressible by “yellow water” or “yellow water!” or “surprising yellow water!” The use of *looks* or *seems* tends to reveal a moment of reflection, doubt, inquiry. This is a criterion of nonspontaneousness. Instead of spontaneous one may say *immediate*, but the latter term is heavily burdened with philosophical theories, which might reduce the value of a spontaneous interpretation of “spontaneous.”

We need to add the term *gestalt ontology* to contemporary gestalt vocabulary. The terms *gestalt perception* and *gestalt apperception* have their own jobs. There is a different job to be done by the term *gestalt ontology*.

Roughly speaking, the term *gestalt ontology* is introduced to take better care of some important phenomena usually denoted by terms such as *holistic thinking*. The usages of *systems thinking* are farther away, but not every use of that term. The most important job is to suggest a different way of conceiving the relevance of mathematical physics to descriptions of reality. It is suggested that mathematical physics aims at creating models for how to conceive and explain the abstract structures of reality, leaving its content untouched.

The following characterize gestalt:

This article was written in 1989. It is being published here for the first time.

UNDERSTANDING NAESS'S UNIQUE APPROACH

1. Units of reality as human beings have the chance to know them are units with three aspects, the subjective, the objective, and the mediational.¹ The aspects are not parts, not subunits.

2. In discourse, thinking, and communication, separation of the three aspects is necessary. The contents of reality are not thereby split in three. They are indivisible.

3. The gestalts are more or less comprehensive. The more comprehensive includes the less, but a less comprehensive gestalt as a unit differs from the same gestalt when it is integrated into a more comprehensive gestalt.

Consider the two first measures of Beethoven's Fifth Symphony (*da da da dab, da da da dab*). The second measure expresses a gestalt that is less comprehensive and contained in the gestalt covering both measures. As an independent gestalt (played in isolation) "it" is different from when it is integrated in the more comprehensive gestalt. ("It" is written with quotation marks because we now imply abstract structures, the measures and their relations.) We may talk of lower- and higher-order gestalts, a higher-order gestalt "including" a lower-order gestalt.

4. The gestalts make up reality in the sense of contents of reality. The content is neither a set of things nor a set of states of affairs (*Tatsachen*).

A definite waterfall at a definite time, including its musical modifications owing to winds, has gestalt character but is neither a thing nor a state of affairs. We may say that the content of reality is all that is the case.

5. What is real is more than the content of reality. There are abstract relations between gestalts, and these are on different levels of abstractness. They may be said, by more or less freely constructed concepts, to suggest abstract structures of reality as opposed to contents. Examples are the physical theory of color hues and the relation connoted by π .

6. Physical theory since Galileo and Newton studies structures on the level of abstractness. It is a study of relations, not relata. That is, relata are always defined through further relations, never through contents of reality.

7. Reality cannot properly be said to *consist* of atoms, or electrons, or particles and waves, or any other set of entities that mathematical physicists need in their creative search for basic and general structures.

8. Abstract structure descriptions at a low level are needed to "locate" in terms of space and time, for example, to locate and define "a tree," one person seeing a joyful content of reality, a different person seeing a sad one.

9. From confusing structures with content there results a wrong kind

of question: Is *that tree* really sad or joyful? How can the same tree be both, if one person says sad and the other joyful? What is happening is that two gestalts are being compared. Because they are two different contents of reality, sad may be an appropriate adjective for expressing one of the gestalts and joyful an appropriate adjective for expressing the other.²

The term *gestalt thinking* may now be defined as thinking in conformity with the above nine characteristics of gestalt ontology. The above makes the following dialogue understandable:

A: The birch is smiling!

B: Not really smiling.

A: Yes, really smiling. I describe experienced reality as best as I can. I do not make inferences.

B: I propose a test. Ask why it smiles. Does it answer?

A: No, but from “*x* is really smiling” it does not follow that “*x* answers or can answer questions.” The structure of reality is not that simple. I describe contents, not abstract structures.

B: Another test: Let us walk to the birch. Point out the left and right corners of the smile, touch the outline of the smile.

A: I have not made predictions. We may walk as you say and acquaint ourselves with other parts of reality. Then we can come back and see whether “the birch is smiling” is still a valid description.

Heidegger rightly denied being an existentialist, wishing to separate his philosophy sharply from that of Sartre. In a somewhat wider sense, however, both Heidegger’s thinking and gestalt thinking are existentialist. “Existence has ontological priority over essence, content has ontological priority over abstract structure.” As with all fruitful notions in the history of ideas, the idea of existential thinking is rather vague, and I shall not try to change that character.

Literature and Painting

In southern Norway there is a mountain, Andersnatten, much painted by artists said to belong to the Norwegian Romantic school. A broad smiling

valley leads up to the dark, nonsmiling mountain, which protrudes into it, cutting out the view of the continuation of the valley.

In a famous picture by the painter Kittelsen, the mountain is presented as a huge troll. The trees constitute the troll's hair. To those who find the presentation of the mountain as a troll meaningful and adequate, there are, somehow, other features that make the troll "resemble" the mountain. The conception of a troll clarifies what they experience when looking at the mountain. Asked for words characterizing the mountain and connecting it with a troll, people offer words and expressions like the following: uncanny, mysterious.

These terms express *spontaneous experience of a reality*. The artist, using his artistic imagination and influenced by a definite cultural tradition, pictures the mountain as a troll. He thereby transcends the spontaneous experience.

Where do we trace the line between the full artistic creation and the experienced reality? There is a difference here, but the importance of it does not depend on its being sharp.

According to social or conventional epistemology, the pines on top of Andersnatten have green leaves ("needles"), light green in springtime, darker in autumn. Changes of color due to darkness in the evenings or to intense sunlight are changing how the trees "look," not "the real" color. Thus, for good practical reasons, the conventional epistemology separates the objective, real colors—properties of the leaves *themselves*—and the more or less subjective *appearances*. The beauty or the ugliness is sometimes thought of as being on a still higher level of subjectivity.

Whatever its practical usefulness, conventional epistemology is highly problematic. The subjectivity of colors in general has long been taught in schools: the colors appear somehow "in" the brain or "in" the consciousness. Trees are considered really to be colorless, which then is confused with a gray color—but here is not the place to go into these problems.

The gestalt conception of reality turns analysis in the opposite direction—from stripping the things of more and more qualities to admitting not only secondary but also tertiary qualities as genuinely real, as much "in" the object as "in" the subject—and, more exactly, "in" neither. The gestalts have three aspects, distinguishable only in thought.

The mountain Andersnatten is a knot in a web of realities geographi-

cally definable only through abstract structures. For those of us who have often seen Andersnatten, stayed in its neighborhood, and climbed it, there is a richness of experiences associated with it that cannot be expressed adequately. To say that experiences are subjective is a bad habit. That is, if the intention is that of describing reality, it leads away from content toward abstract structure. Among the painters, those said to belong to the nineteenth-century Romantic school are best able to convey the realities of a landscape. It would be better to call them realists rather than romanticists. The colors are not the conventional ones but convey the spontaneous, uncensored experience of hues. The painters seek neither the subjective nor the objective but, as far as they can, seek the real as a whole, the high-order gestalts.

Literary style makes uninhibited use of spontaneous experiences and terms for tertiary qualities. Denis Diderot, the great rationalist, talks about the majesty of oaks, the coquetry of roses, the prudery of daisies, the proudness of lilies, and the humility of violets. This is an example of rational and realistic language. If somebody says “This rose is majestic and that oak is coquettish” as a description of a spontaneous experience of a couple of realities, this does not contradict Diderot. Mistakes enter when we assume structures and predict or explain. Although professional botanical writers severely limit such vocabulary, it is practically never entirely absent. Of course, not all so-called metaphors of nature-loving authors are faithful to spontaneous experience of reality, but even Western culture allows the artist to describe realities uncensored and as an end in itself.

Gestalt and the Process of Identification

How is the relation to be understood between the concept of identification with living beings and that of gestalt?

When we experience a strong identification with an animal—for example, in a situation of great danger to the animal—the situation has a character of unity, with certain negative traits dominating. Everything, including the animal, changes. The process of variation or fluctuation of degrees of danger affects the whole situation, including traits that have nothing to do with the animal.

This kind of irradiation of danger affects our access to spontaneous ex-

UNDERSTANDING NAESS'S UNIQUE APPROACH

perience of a wider reality: the strong personal gestalt experiences focusing on danger occur not only when the egocentric self is threatened but also with threats to a more or less wide class of living beings, including landscapes. The gestalt character functions to widen and deepen the effect of identification. The concrete contents of experience become richer through the I/Thou relations with living beings.

Suppose my pleasant work at a certain place requires of me repeatedly to pass a mat of flowers of a certain kind. I notice that they turn toward the sun, pointing in a different direction as the sun moves. The process of identification with the flowers makes me see them as seeking and appreciating the rays and warmth of the sun, and being at work to satisfy a vital need. Being myself pleasantly at work, the total situation is that of working together.

Now suppose instead that my work is unpleasant and hard. The usual way of talking is to say that the mat of flowers as part of reality is the same, but our subjective impressions and experiences are different because we feel differently owing to the unpleasant work. We never escape from our world of subjective feelings, it is said, but science and common sense can teach us about objective reality, a reality in which trees are neither joyful nor sad. There is, I would rather say, both a common sense and a common lack of sense. Mathematical physics can lead us to know more contents of reality, but the strict requirement of intersubjective testability precludes scientific knowledge of contents.

Notes on the Methodology of Normative Systems

Hard and Soft Methodology

Historically, interest in general methodological questions has concentrated upon highly technical and prestigious sciences like theoretical physics. One expects to hear about Einstein and quantum physics rather than about the methodology of questionnaires. The author of these notes belongs to those who relish reading about the wonderful achievements in physics, cosmology, and related very “hard” fields of natural science. In the last five years, however, an increasing number of methodological admirers of hard science have tried to do something meaningful in soft science, more particularly, in chaotic areas where science and politics meet; areas such as how to save some unpolluted nature and reserve some possibilities of graceful and dignified life for our grandchildren. In these areas, such humble research instruments as questionnaires are important. Ordinary, decent *pro et contra dicere* gets to be important. Methodology loses here much of its scientific charm. There are, however, a vast number of important questions for the soft research methodologist to tackle.

The following notes are formed in close connection with a definite example of a research project involving the development of a system of norms and hypotheses¹ and also with a commitment to a social and political activity, the deep ecology movement.²

It is my contention that tentative formulation of normative systems is highly desirable in many kinds of activity, both purely theoretical and

This article first appeared in *Methodology and Science* 10 (1977): 64–79.

mixed theoretical, and pedagogical, ethical, or political. They have so far received little attention.

“Norms” and “Hypotheses”

The sentences of normative systems are conveniently divided into two classes, those ending with an exclamation mark, suggesting inducements to think or act in certain ways, and those ending with a period, suggesting affirmations. The first I call norms, the second hypotheses. The latter name is chosen primarily to suggest testability, not uncertainty. Secondly, the name suggests a certain tentativeness or revisability. These characteristics hold also for norms, as we shall see for the methodology suggested in what follows. Even basic norms are revisable. It has been objected that the term *norm* and the exclamation mark make the norm-sentences seem absolutistic and rigid. Actually, their main function is that of proposing tentative guidelines. Little is gained by a mere complicated, relativistic terminology. Decisions—the aim of normative thinking—are absolutistic in the sense of being either carried out or sabotaged.

To avoid unnecessary abstractness I shall permit myself to introduce and elaborate in some detail a definite example (see figure 8). Explanations will follow in successive steps, not all at once.

Figure 8 expresses a tentative synopsis, or condensed survey, of a philosophy inspired by the ecological movement. I call such a philosophy an *ecosophy*. My relation to this philosophy is complex: on the one hand, I am an adherent and contributor to its development; on the other hand, I am a researcher interested in critical thinking about systems and interested in methodology as such.

My suggestion that figure 8 “expresses” a synopsis must be understood elliptically. As a drawer of the diagram I intend to express the synopsis through certain sentences, but it is, of course, more or less unlikely that the sentences convey exactly the same thing to each reader. Certain approximations are all that can be expected.

Modern ecology has been an inspiration to many ecologists and philosophers, and they, of course, do not arrive at the same results. To stress the possibility and even desirability of a diversity of tentative philosophies inspired by ecology, I have named the system outlined in figure 8 *Ecosophy*

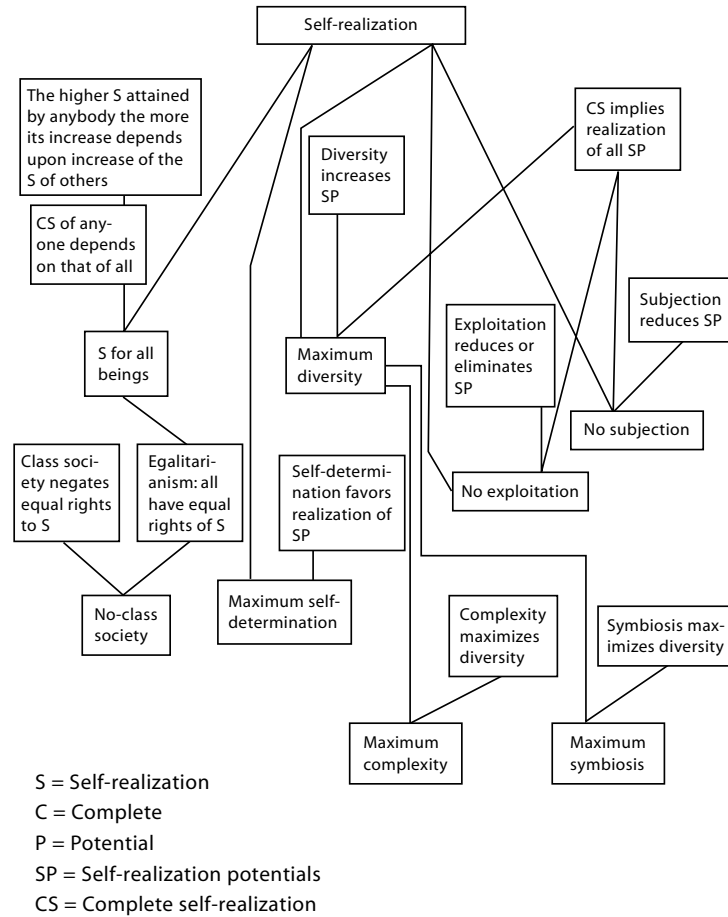


Figure 8. Ecosophy T (repeated)

T. Here again I use a shorthand expression: strictly speaking, no absolutely definite system is outlined. A set of sentences is offered, but plausible interpretations make up a class with more than one number — and my “definiteness of intention” is limited and constantly in flux.

A philosophy may be systematized in many ways. There is no single, definite way of tracing lines of derivation. It is to some degree arbitrary which norms and hypotheses are chosen as ultimate in the sense of not derivable. Moreover, even if the norms and hypotheses are arranged in a definite, authorized way, there is still room for differences in wording. Four

sentences can be arranged in twenty-four ways through simple permutations. The classes of meaningful sequences of formulations of a single systematization I call versions.³ Figure 8 shows only one version. In what follows it is important to have the trichotomy system, systematization, and version in mind. There is a one-many relation among the three items.

Lower Norms in the Sense of Derived Norms

The lines going from the top toward the bottom of the diagram are meant to indicate derivations. The sentences lower down are meant to follow from those higher up. The higher norms are not meant to have ethical or otherwise normative priority; they are not meant as more valid. The relations of levels are not axiological, but logical in a fairly wide sense—let us say as wide as in Spinoza's "proofs." The relation of higher to lower is often the rather trivial one of a more general to a less general norm or hypothesis.

Use of Vagueness and Ambiguity to Achieve Multiple Interpretability

The terms and sentences (including the many one-word sentences) are strikingly vague and ambiguous. They are purposely open to a variety of interpretations.

There are serious methodological considerations that favor multiple interpretability. The highly tentative, "heuristic," character of the survey has the character of an instrument of research, not a codification of results. It is made along the way and modified along the way.

Instead of tentatively rejecting one of the norms or hypotheses in favor of a completely different one, it is often better to introduce alternative interpretations of the initial or point-of-departure wording. The initial vague and ambiguous sentence expressing the hypothesis or norm may tentatively be given more precise meanings, resulting in new formulations called precizations. Precization is one of the central concepts of a semantical subsystem often called empirical semantics.⁴ Roughly, a sentence, s_1 , is more precise than another, s_0 , if, and only if, the latter (s_0) permits all interpretations of the former, whereas the former (s_1) does not permit all the interpretations of the latter (s_0) and does not permit any interpretations that the latter does not permit. In short, the set of interpretations of the more precise sentence is a genuine subset of that of the less precise. The choice of

a rather indefinite and ambiguous sentence in the most elementary survey makes it fairly short and easily understandable and opens a large variety of possibilities of more definite character. Instead of more or less arbitrarily insisting that a sentence is to be interpreted, say, in the way expressed by No. 249, and in no other way, we keep the options open as long as this is heuristically convenient. Strictly speaking, the change of usage of words in No. 249 makes its meaning fluctuate in time and place. Openness is unavoidable.

Function of One-Word Sentences and Other Primitive Utterances.
"No Exploitation!"

A striking feature of the survey are the many one-word sentences. We encounter a problem deciding just who are considered the senders and who are the intended receivers of the survey considered as a means of communication. If it is considered to be a kind of blueprint for a general utopia of self-realization, the intended receiver is humankind at large. Humankind does not read, however. More concretely, the intended receivers may be conceived as "the economically well-to-do in the industrial societies," and the sentences announce to them which norms should be followed and which goals (values) should be attempted or realized in and through changes of their society.

Thus conceived, the wording of one of the norms can be made more precise as follows. T_0 : No exploitation! T_1 : You (economically well-to-do in the industrial societies) work toward, or support attempts at, eliminating economic and other kinds of exploitation. T_1 is more precise than T_0 in one direction of precization—namely, the receiver who is directed—but the ambiguous term *exploitation* is still made use of.

What is exploitation? Obviously there is room for further precization, but a highly precise sentence of the kind needed in a fairly abstract and general survey is apt to be very long and very complicated. Therefore, it cannot perform the special function of the less precise. The elaboration of the more definite, less vague and ambiguous surveys of a system does not make the less definite and more vague and ambiguous valueless. We have to work continuously at various levels of preciseness. Various degrees of multiple interpretability are needed.

The survey has six vertical levels, and at the top there is only one norm.

With only one top norm we eliminate the complication of rules of priority in case of norm collisions among any larger set of top norms. On the other hand, the choice of only one norm that is not derivable from other norms involves a fair amount of word magic or more or less arbitrary rules of interpretation. The term *self-realization* carries an inordinately heavy burden.

If we put up, let us say, ten top norms, this makes it necessary to decide upon a great number of rules of priority. In general, the maximum realization of n_i is not compatible with maximum satisfaction of n_j , i and j taking the values 1, 2, 3, . . . , 10. Or the maximum effort to realize n_i is not compatible with the maximum effort to realize n_j . To regulate the relations between n_i and n_j a vast number of rules may be needed.

Some Interpretations of "Self-Realization"

Given different interpretations (in the sense of precization) of the term *self-realization*, the whole survey acquires different meanings. Some derivations will not hold for some interpretations. In spite of this dependence upon a single term, it would not be wise to assign to it a definite meaning. The choice must to some extent depend upon which derivations are considered valid and important. Thus, the interpretation of the top-norm sentences and of the others of the version is a continuous process, wherein tentative modification at one level interacts with tentative semantical modifications at others.

The main semantical device for adapting the term *self-realization* to Ecosophy T is to distinguish the following concepts:

T_0 —self-realization

T_1 —ego-realization

T_2 —self-realization (with lowercase s)

T_3 —Self-realization (with capital S)

The last kind of concept is known in the history of philosophy under various names: the universal self, the absolute, *ātman*, and so forth. Many Indo-European languages use terms corresponding to the English "self" in analogous ways. Thus, the Sanskrit *ātman* is used for all three concepts, but mostly as a simple reflexive pronoun.

In prevalent individualistic and utilitarian political thinking in modern Western industrial states, the terms *self-realization*, *self-expression*, and *self-interest* are used for what is above called ego-realization and self-realization. One stresses the ultimate and extensive incompatibility of the interests of different individuals. In opposition to this trend is another based on the hypothesis of increased compatibility with increased maturity of the individuals. The compatibility is considered to have an ontological basis—compare the “illusion” of a separable ego. Ecosophy T leans heavily on such ideas, excellently developed in the *Ethics* of Spinoza. Self-preservation, or in our terminology, self-realization, cannot develop far without sharing joys and sorrows with others or, more fundamentally, without moving beyond the narrow ego of the small child into the comprehensive structure of a Self that comprises all human beings. The ecological movement—like many earlier philosophical movements—takes a further step and asks for a development such that there is a deep identification of individuals with all life.

The development of life-forms, especially since the Cambrian period, shows an extreme degree of expansion of life space and a corresponding diversity of forms making use of different climatic and other conditions. There is no merely passive adaptation, no mere self-preservation in any narrow sense. Thus, the term *self-expression*, or *-realization*, is better suited than self-preservation. If the term *self* is felt to be unfitting, we can use *life-unfolding* or *life-expansion*.

Whereas the top sentences, both norms and hypotheses in our survey, are somewhat metaphysical, the next levels introduce crucial ecological terms: diversity, complexity, symbiosis. If a particular way of life is such that different species or different communities must compete and struggle with each other merely to survive, conditions are worse than if they somehow can specialize, making use of each other's activities, and thus exemplifying “Live and let live”—that is, practicing symbiosis. Symbiotic coexistence as conceived in modern ecology does not exclude killing—elk and wolf have lived in symbiosis, the wolves keeping the population of elk within a limit necessary to uphold good, not-too-competitive life conditions and stable elk communities.

Other terms, of course, also need elucidation. The main point, however, is that from the top norms and hypotheses, general ecological and ecopolitical principles are derived. Thanks to the normative aspect of the

system, it does not merely describe, it prescribes. Thus, we are able to take care of the social and political views within the international ecological movement, of which environmental concerns are only a part.

Conclusions

I have used whatever words came to mind to render some of the hypotheses of the survey understandable. I am not trying to persuade anybody of the tenability of the hypotheses!

The main conclusions I wish to emphasize are these.

1. Systematization of norms and hypotheses is needed in research motivated by pedagogical, ethical, political, or other large-scale movements.
2. The systematizations visualize complicated logical, or more generally cognitive, relations between important clusters of prescriptions and descriptions. They bring into focus the basic premises and fundamental norms that guide concrete actions and minor research units that have meaning only, or mainly, within a major normative framework. They help to unify and coordinate enterprises involving diverse groups and numerous people.
3. Systematizations as research instruments must be flexible. They are best expressed at various levels of preciseness and in alternative terminologies. A multiplicity of versions is needed, each version adapted to special functions.
4. Modifications can be carried out through reinterpretation of terms and sentences as well as through negating or modifying propositions.
5. Whereas the simple categorical way of announcing norms and hypotheses makes survey and derivation simplest, assessment of degrees of uncertainty and qualifying phrases should be attached as notes and comments.

Normative Systems: Role in Social and Political Context

Let us now turn to the extrinsic use of a survey or synopsis in social contexts, where it has pronounced multiple uses. Our example will continue to be the survey used in the deep ecology movement.

The destruction of ecosystems because of the human population explosion, heavy industry, and other factors has made it necessary to reform laws and regulations of many kinds. For example, laws that until recently speci-

fied exceptions to a general permission to kill wild animals are now specifying exceptions to a general prohibition against killing or injuring. A corresponding development is going on in relation to wild plants.

The reasons given for all these prohibitions usually stress narrow utilitarian aspects of the crisis, or they may stress in more general terms the interconnection of human life conditions with those of other life-forms. Among the most prominent advocates of a new attitude toward nature and its ecosystem, however, the strongest motivation has been more philosophical. Those advocates have struggled for recognition of the intrinsic value, the value-in-itself, of the various life-forms, and the right, in principle, of all of them to blossom. The ecological movement in the West from the time of Rachel Carson's *Silent Spring* (1962) has been inspired by philosophy, and this is still so. The survey is a crude instrument by means of which the main outline of this philosophy can be codified—not that all participants in the movement need to subscribe to the hypotheses and norms, but so that they can verbalize their own convictions in relation to the survey. Very few of the active participants have any special training in systematic expositions of a combined philosophical and scientific character, and the methodology of normative systems certainly is not included in the curriculum of traditional schools. Thus, the survey facilitates reasoning and argumentation from first principles within the ecological movement—and, of course, as a reaction within the groups that fight what they call the prophets of doom.

Role of Arguing from First Principles in Technocracies

Why is it so important in some Western industrialized states to reason and argue from first principles?

One reason is the alternative of depending on the value judgments of technical experts. I wish, therefore, *not* to mention it as a universally valid reason for argument from first principles.

The vast majority of experts with influence on the policies of Western industrial states avoid argumentation from fundamentals. Instead, they prefer to state the preferences of the majority, to harmonize their responses with the stated goals of the democratically elected government. The goals are in part vaguely formulated through slogans such as “Welfare,” or more

specifically defined as "Continued economic growth," "Less than 4 percent unemployment," and so forth. In any case, experience shows a marked unwillingness, perhaps sometimes combined with an inability, to argue from fundamentals.

Confronted with people in the ecology movement who use argumentation from fundamentals, the experts are induced to do the same. This nearly always results in conclusions favorable to the movement. Shortsighted, unecological policies have as a necessary condition absence of argumentation from fundamentals. When such argumentation is introduced, inconsistencies between basic norms and hypotheses and current policies are laid bare. Very often, the experts have the same basic personal value commitments as those in the ecology movement, but their public function is primarily to help realize goals not stated by them but by some authority backed by powerful special interests. Less powerful interests cannot afford to hire the experts.

Through argumentation from fundamentals the experts are pushed into controversial issues and are led to criticize unecological policies and their own bosses. Thus, the more clear and explicit the argumentation from fundamentals among supporters of responsible ecological policies, the greater the possibilities of introducing such argumentation among policy makers.

These hypotheses about the enlargement of possibilities do not imply any definite level of influence. It is easy to overestimate the influence of arguments in politics. The impact of ecological thinking upon policies has been slight compared to what ecologists think is necessary to prevent catastrophic conditions within a century of the present moment.

If such argumentation is introduced, it favors on the whole the goals of responsible ecological policies. However, this may be too much talk about the ecology movement—and too much use of unclarified value-laden expressions such as "responsible" ecological policies! Let us inspect the survey considered as a point-of-departure formulation (a *To* formulation) of the uppermost levels of a normative system.

Preponderance of Nonnormatives in a Normative System

We begin with certain elementary observations:

1. A normative system never consists only of norms. Most codifications of normative views show a marked preponderance of nonnormative sentences.

2. Norms are in general derived from other norms and hypotheses, not merely from norms.

3. The existence of at least one hypothesis as a premise for the inference of a norm establishes the hypothetical character of derived norms. Their validity depends upon the validity of nonnormative assumptions, postulates, theories, and observations.

Methodologically, the last point is of decisive importance in argumentation: when the intricate interconnections between norms and hypotheses are left unarticulated, each norm tends to be taken as absolute or ultimate. This reducer eliminates the possibility of rational discussion. In harmony with the methodology here proposed, it is always appropriate, when norms are opposed in debate, to ask the opponent, "Which hypotheses do you think are relevant to the adoption of your norm?"

If experts refer to public opinion in support of a norm, it is today important to ask both for evidence in the form of published investigations of opinions and for norms justifying the derivation of a norm from descriptions of opinions, whether they are those of a majority or of an authoritative minority. Opinions are unfortunately reported as if they can be isolated from (implicit) normative systems. A Norwegian survey concluded that three out of four Norwegians think their standard of living is too high, 28 percent even "much too high," and only 1 percent too low. Supporters of economic growth contended that a different way of asking would show that a lesser majority is against the current average high standard of living. Subsequent surveys proved this. It is plausible, though, that a "deep interview" covering fundamental norms and hypotheses would indicate that more than three out of four think the standard is too high. What is needed for methodological purposes is the use of a substantial number of differing systemic contexts. As it is now, various political parties use only one questionnaire for each survey and formulate the questions in a way that is not unfavorable to the party line.

Ultimate Norms: The Equal Right to Live and Blossom

The term *ultimate norm* is used mainly in two senses: (1) a norm not derived from any other norm and (2) a norm of highest priority (or of absolute, unconditioned priority). In normative systems of the kind envis-

aged, only the first sense is used. In that case there is a rational methodology for changing an ultimate norm. Any proposal for ultimateness will fundamentally have the character of a working hypothesis.

Given a consistent set of norms and hypotheses, there is in principle a plurality of possibilities for deriving them from a less numerous set. This primarily involves a process of generalization. If the ultimate norm concerns adult human beings, it may be generalized to make it concern all living beings with certain characters, with the traits determined such that one can infer that all adult human beings possess them within the range of intended validity, but that other living beings also might possess them within the same range. Whether we believe that there actually are such beings (e.g., angels, Martians) is not relevant to the question of derivation. We would get an ultimate norm from which the previous ultimate norm concerning adult human beings is derived.

A more frequent source of change of an ultimate norm is, however, the derivation of a (nonultimate) norm that we are certain we will not accept as valid. It must be remembered that a systematization is a methodological divide made by certain persons for certain purposes. It has no independent authority.

If, for example, "All living beings have an equal right of self-realization" is taken to be derivable from the ultimate norm "Complete self-realization," and if "Your little daughter has an extreme hunger, and food can only be brought to her by killing the last tiger, nevertheless do not kill it" can be derived from "All living beings have equal rights" (plus some hypotheses of unquestioned validity), then some of us would tend to reject the ultimate norm. That is, we might say, It is my duty to rescue my child, whatever the consequences for the tigers (but not whatever the consequences for my human neighbor; i.e., it is not my duty to kill him, even if he were the only food available for my daughter). The rejection of an ultimate norm usually has a kind of intuition as one of its presuppositions.

The principle of the equal right of all living beings to blossom is at the moment controversial, but there seems to be a rising opinion in its favor. In order to avoid undesired injuring and killing, animals for food must be admitted through special hypotheses and norms. These have to do with mutual aid among beings of the same or a similar kind. There are obvious ad-

vantages for a species whose parents take special care of the offspring, and in which kindred beings take special care of one another, but egalitarianism sets limits on kinds of special care that are obnoxious to the outgroups. Exactly where is the line to be drawn? Obviously, there cannot be general agreement here, and attempts to codify detailed norms covering all sorts of norm collisions are unrealistic and methodologically unjustified. There is, however, a movement toward establishing a norm against inflicting unnecessary pain or injury to animals. What is meant here by *necessary*? It obviously depends on a complex structure of norms and hypotheses.

Clarification of concepts of “natural right” has never been very successful. As an aid to clarifying the egalitarian norm under consideration, I propose that a stipulation of definitional rule be added: “The right of *A* to live and blossom does not automatically exclude the justification of *B* to injure or kill *A*.” To avoid confusion, I would not say that *B* may have the right to kill; there are many kinds of justification other than through a so-called natural right.

De Principiis Est Disputandum

We now return to our consideration of norms placed as ultimate in a normative systematization. From the above discussion it follows that the rule of *de principiis non est disputandum* does not hold. Every proposal of ultimate norms is open to discussion. Moreover, the critical assessment can take many forms: nonacceptance of consequences, invocation of norms from which the proposed ultimate norm can be derived, and other argumentational moves.

Teamwork and Action Research

Hypotheses of central importance in an ecosophy exhibit an extremely wide range of subject matter—from quantum mechanics to political science and communication theory. Teamwork is therefore essential in every ecosophical research project, however modest. There are no specialists in ecophilosophy. The research project in which the systematization illustrated in this paper figures has involved teamwork. The project members

are in constant touch with a wide circle of researchers and participants in political and social struggles. To some extent this gives the research the character of action research.

Action research has acquired a bad reputation among stern methodologists favoring the hard natural sciences. This is unfortunate because an increasing number of high-quality research problems have time limitations. The researchers get to know the dates—say d_1, d_2, \dots, d_{10} —as approximate dates of social and political decisions with grave ecological consequences. The researchers are asked to furnish evidence for or against certain crucial hypotheses before definite dates. Genuine questions of scientific methodology are specific to this “unfortunate” situation: the researcher has to solve the maximization problem—how to arrive at a maximum of evidence for or against a hypothesis given limited resources, the severest limit being that of time available. Furthermore, the researchers have to accept modifying or reshaping the project after each political decision. Teamwork is essential because of the many shifts of relevance from one kind of subordinate problem to another.

The ecologically relevant investigations of atomic energy installations are typical. Safety investigations require atomic physicists, chemists, and engineers in the hard sciences. Assessing consequences for vegetation, fisheries, and so forth, requires soft natural science participants; the human-error factor, social and psychological competence; and the political implications (plutonium “in the hands of” an increasing number of governments, increased centralization, etc.), researchers in many social and humanistic fields. Therefore, all are subject to merciless requirements of priorities. Every relevant question may open interesting investigations that could take 100 years and require the total material resources available.

The bad reputation of action research results mainly from two defects and one good thing: (1) the uncertain character of certain hypotheses is not formulated with sufficient emphasis in research reports or in popularized forms in mass communication; (2) the researcher pleads a cause in a way that hampers the utilization of his information by people of different opinion; and (3) action research sometimes hits narrow vested interests, which then hit back, trying to discredit action research as a whole.

Whereas military action research in established sciences of nature has been going on for a long time without the name being used, social science

action research is new and must be expected to meet opposition. It is of great importance that it be led by researchers with some experience; otherwise, valuable contributions can be misused or neglected because of flaws in the way they are presented to the public. One example will suffice. A government institution involved in the effort to protect forests hired scientists to report on various topics, one of which was recreation. A young team investigated the conception that people have of a forest: what they expect and wish to experience in the forest. The public clearly expected and wished for diversity in the ecological sense. Those, however, who have overarching economic interests favor no traditional cultures, broad highways for transportation, and other features that are ecologically undesirable. A hot public debate resulted, and the papers written by the young scientists were heavily criticized. Some of the criticism could have been avoided if they had foreseen the clash between opposing interests. In short, in action research the participants should be generalists, with a field of study covering the question of how a scientific report is likely to be read and made use of or attacked by various power groupings. Communication theory and political science are relevant, whatever the special topic of an action research project.

It is my hope that this paper may inspire some friends in the field of “hard” methodology to shift toward the broad fields of “soft” methodology. Their general attitude of concern for “objectivity” may contribute to the fairness and lack of bias so important in the hot conflicts surrounding present-day social and political problems.

Paul Feyerabend—A Green Hero?

Mild and Green?

It is not without a certain feeling of guilt that some of us admit to finding great pleasure in reading Feyerabend, including his many digressions and footnotes. Speaking of footnotes, who else has managed to place a footnote on his title page that refers to yet other footnotes? (See the title page of *Against Method: Outline of an Anarchistic Theory of Knowledge*.)

The feeling of guilt occurs when reading the serious criticism of Feyerabend's manners, his "offensive and wounding comments," his limited "respect for truth," and his relentless attacks on the reading abilities of his colleagues.

Feyerabend sees himself as mild and considerate, but in the very footnote in which he defends his innocence he says that he wants "to remove the ideological and financial exploitation of common citizens by a small gang of power- and money-hungry intellectuals" (Feyerabend 1975: 131). The reader may easily interpret this as an even harsher attack upon his colleagues than that concerning their lamentable literacy. Without getting into further analysis of a personal nature, I conclude that Feyerabend's mildness is genuine and that even his monumental stylistic arrogance is nonviolent.

This article was reprinted with permission from *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy*, edited by N. Witoszek and A. Brennan (Lanham, MD: Rowman and Littlefield, 1999), 57–68. It first appeared in *Beyond Reason: Essays on the Philosophy of Paul Feyerabend*, edited by G. Munévar (Dordrecht, Netherlands: Kluwer Academic Publishers, 1991), 403–16.

This unexpected conclusion makes me wonder to what extent the arrogant style of Renaissance scientists was combined with smiling mockery. Luigi Ferrari expresses his pleasure in the belief that his writings against Tartaglia have broken the back of the latter and made him scarcely able to move his tail, and so on. Perhaps scientists at that time enjoyed themselves immensely, not only *talking* to each other in this way, but making scathing personal criticisms as widely known as possible by means of the newly invented printing press.

At any rate, Feyerabend's exuberance has elicited many rhetorical jewels. Ernest Gellner's "Beyond Truth and Falsity" is a case in point. Perhaps we shall witness the rise of a new tradition of scientific rhetoric in the near future. There are illustrious precedents. Pascal expressed *rhetorically* the theorem that "the arc length of an arch of the generalized cycloid" is equal to "the semicircumference of the ellipse" (Boyer 1968: 400). However, those of us whose rhetorical talents are rather modest should, I think, stick to our old pedantic ways. That, at least, is what I shall do in the following.

What I would like to do is suggest a qualified positive answer to the questions "May we, who are proponents of green philosophy and politics, count Feyerabend as one of our heroes?" and "Does he support the idea of a green policy of science?"

The use of the term *green* in the above sentences certainly needs some clarification. It refers to general views and attitudes in the main inspired by the international environmental ecological movement. Some well-known authors of this movement are Gregory Bateson, Kenneth Boulding, Rachel Carson, William O. Douglas, Rene Dubos, Jacques Ellul, Johan Galtung, Clarence Glacken, Edward Goldsmith, Ivan Illich, Sigmund Kvaloy, Aldo Leopold, Ian McHarg, Joseph Meeker, E. J. Mishan, Roderick Nash, John Rodman, Theodore Roszak, Marshall Sahlins, E. F. Schumacher, Paul Shepard, and Lynn White.¹ These authors do not always agree, and they have different styles, but important overlappings manifest themselves in similar political and general cultural postures in some of their publications. It is a case of Wittgensteinian family resemblance.

Traditions and Rationality

From a rather narrow point of view, green policies are characterized only in terms of pollution, resources, and population control. As far as I know Feyer-

abend has at least not published anything *contrary* to green policies in these fields. Pointing to his new car (his first) he remarked, “I have joined the eco-criminals!” I leave it to the readers to find the most plausible interpretation.

The philosophically central green issues concern human ecology, which today covers much of social and cultural anthropology. The term *tradition* belongs to the central ones. Feyerabend says something about the function of rationality in relation to traditions that deserves further development.

There are furthermore at least *two different ways of collectively deciding an issue* which I shall call a *guided* and *open exchange* respectively.

In the first case some or all participants adopt a well specified tradition and accept only those responses that correspond to its standards. If one party has not yet become a participant of the chosen tradition he will be badgered, persuaded, “educated” until he does—and then the exchange begins. A *rational debate* is a special case of a guided exchange. If the participants are rationalists then all is well and the debate can start right away. If only some participants are rationalists and they have power (an important consideration!) then they will not take their collaborators seriously until they have also become rationalists: a society based on rationality is not entirely free; one has to play the game of the intellectuals.

An open exchange, on the other hand, is guided by a pragmatic philosophy. The tradition adopted by the parties is unspecified in the beginning and develops as the exchange goes along. The participants get immersed into each other's ways of thinking, feeling, perceiving to such an extent that their ideas, perceptions, world views may be entirely changed—and they become different people participating in a new and different tradition. An open exchange respects the partner whether he is an individual or an entire culture, while a rational exchange promises respect only within the framework of a rational debate.

(Feyerabend 1978)

The outcome of seemingly friendly interactions between nonindustrial and industrial traditions or cultures is largely determined by the superior power of the latter. The kind of rational debate and decision making characteristic of the powerful prevails. It cannot be expected that the Lapps of northern Scandinavia will be able to fight effectively for their “rights” when invited to play the decision-making game of their powerful opponents. The same holds for the hopeless fight of the Buddhist Sherpas to maintain their cultural integrity in a land ruled by Hindu bureaucracy. In both cases, the decision-making processes of the weaker side are different

from those of the stronger. If more or less forced to adopt the ways of the stronger, the weaker side is doomed to be dominated by the stronger. Today there is scarcely any *intention* to dominate or exploit the Lapps, or to weaken what remains of their culture, yet the interaction or exchange is a “guided” one in Feyerabend’s terminology, and the stronger party wins. That is, it wins in the short run—but it loses in the long run, according to green philosophy: the absence of contact with a genuinely different culture makes the winner poorer.

Feyerabend’s terminology does not seem to me very wise, however. The decision-making process in nonindustrial traditions may not be less rational than in our traditions, if the term *rational* is taken in a wide sense adapted to *general* cultural anthropology. When the Sherpas say that Tseringma (Gauri Shankar) is a mountain, a princess, and a kind of mother—of course, all at the same time—this is irrational only when integrated in a rather superficial way with our thinking and in our language. Rationality in a wider sense does not imply that one has to “play the game of the intellectuals.” In short, I think it unwise to restrict the term *rational*, and even *rationalism*, in such a way that industrial societies acquire a monopoly.

This terminological remark does not alter the view that when two (widely different) cultures or traditions interact, the resulting changes cannot be adequately understood as a rational interchange even in a wide sense.

Maximum Diversity

One of the fundamental or key terms of green philosophy and politics is *diversity*. Diversity of life-forms, diversity of functions, environments, niches, traditions, practices, is basic to change and particularly to the evolution of new life-forms and cultures.

Respect and tolerance for diversity on a more and more crowded planet, therefore, get to be an increasingly urgent political matter. The view is gaining credence that the “cultural” diversity seemingly manifest in great industrial cities is only a superficial variation. Basic attitudes are increasingly standardized, in part owing to the centralization of technologies and communication.

Cognitive diversity is an integral part of cultural diversity. If, therefore, education is increasingly stereotyped through the adoption of world-

wide criteria of learning, the path toward monoculture is made smoother. That is, the contemporary stereotyped institutions of learning undermine the possibility of escape from cultural stagnation on this planet.

These are pessimistic but rather common views. Nevertheless, to change the schools and universities, political changes are necessary that today seem unlikely. The chances of change increase somewhat if more and more teachers boldly introduce changes based on an epistemological pluralism (Feyerabend: anarchism; my term: possibilism²) that cannot easily be refuted, if at all. A great impact cannot be expected, but the work in favor of a deep change must itself be of a diverse kind. Education is one field of struggle.

Minimum Interference

One cubic foot of good soil contains hundreds of species of organisms, each represented by hundreds, millions, or even billions of specimens. They interact with nonorganic ingredients in a more complex way than can be grasped in detail. Nevertheless, details, or specialized complex functions, are often decisive for the function of the whole as “good soil.” Field ecologists hired to effect this or that change in a natural environment, or asked about what short- or long-range effect an interference will produce, are often brought to the limits of desperation: neither technical experts nor politicians seem to appreciate the basic ignorance of today and tomorrow about practically any concrete processes in nature. I say “concrete” because abstract knowledge of “laws” may increase exponentially without much influence on our ignorance in matters of field ecology. Therefore, *docta ignorantia* is a new key term of green philosophy.

Field ecologists, when asked about a new plan to interfere in nature, tend to answer “Better not to interfere” because of ignorance of effects, not because of proclaimed insight into negative effects.

What holds good about interference in nature holds also about nonindustrial cultures. Much of the benevolent interference in these cultures, offering them help in the form of food, dams, or books, have had deplorable effects. Often, noninterference seems to be the most responsible policy. The theme is complicated and the state of affairs rather depressing, with cultures dying at an alarming rate.

UNDERSTANDING NAESS'S UNIQUE APPROACH

A principle of minimal interference applies to subcultures within industrial societies. Feyerabend says provoking things about this:

The possibilities of Mill's liberalism can be seen from the fact that it provides room for any human desire, and for any human vice. There are no general principles apart from the principle of minimal interference with the lives of individuals, or groups of individuals who have decided to pursue a common aim. For example, *there is no attempt to make the sanctity of human life a principle that would be binding for all*. Those among us who can realize themselves only by killing their fellow human beings and who feel fully alive only when in mortal danger are permitted to form a subsociety of their own where human targets are selected for the hunt.

(Feyerabend 1978: 132)

In any crowded society a subculture with a lot of killing going on interferes too heavily with outsiders. In the Valhalla of the Vikings, those who did not relish fighting and killing stayed home having a good time. They were never intentionally or accidentally molested by the enthusiastic fighters. In the evenings they got as much beer as the heroes. Unfortunately, there are today geographical limitations that make the practical application of very broad tolerance of cultural diversity difficult. The Valhalla model is inapplicable.

In green politics the protection of animal societies, not just the protection of individual human beings against undue interference, is a key issue. The matter is complex, however, and the maxim of "Maximizing life potentials" clearly sometimes makes it justifiable for human beings to interfere in the animal world, protecting one animal society against another. I do not see why we should not gently assist the golden trout (*Salmo aquabonita*) if it is threatened with complete extinction through weakness in its competition with the brown trout.

Westerners since Descartes and Bacon, fortified by the labor theory of value, have often regarded interference as a criterion of efficiency. What proceeds naturally tends to be classed as valueless or indifferent. It is characteristic of green policies to minimize interference, and we find the same point expressed by Feyerabend:

As far as science is concerned, I am as fit as a fiddle. Not being restricted by an undying loyalty to science I started looking for other kinds of healers and I found there are lots of them. Herbalists. Faith healers. Acupuncturists. Masseurs. Hypnotists. All quacks, according to the established medical opin-

ion. The first thing that caught my attention was their method of diagnosis. No painful interference with the organism. Many of these people had developed efficient methods of diagnosing from pulse, color of eye, of tongue, from gait, and so on. (Later on, when reading the *Nei Ching* which develops the philosophy behind acupuncture, I found that in China this was intentional: the human body must be treated with respect which means one has to find methods of diagnosis that do not violate its dignity.)

(Ibid., p. 137)

The use of the term *dignity* is instructive. Green politics is concerned about dignity as much as about material standard of living. Dignity is essential to life quality, and it is extended to animals. Animal factories interfere with the *dignity* of pigs.

On the whole, the green philosophy of nature is inspired by a broader appreciation of life-forms than is usual. One would agree with Feyerabend: “As far as I am concerned, a world in which a louse can live happily is a better world, a more mature world than a world in which a louse must be wiped out” (ibid., p. 133).

Fundamental Philosophies, Ecosophy T

In general, I think a basic norm of “Live and let live” is characteristic of green philosophy. In terms of traditional Western philosophy, it corresponds to a norm of “Maximum fulfillment of life potentials.” This norm implies norms of diversity, of complexity (of structure and function), and of maximum symbiosis, that is, arrangement of life-forms and lifestyles with minimum negative interference among them. An interaction counts as negative if it decreases the potentialities of life fulfillment of the participants.

Being fond of neat systematization, I have worked out several versions of a particular kind of green philosophy and politics, which I call Ecosophy T (Naess 1989: 64–79). One version of its key slogans is formulated in figure 2 (page 76), with lines of derivation pointing downward from the top of the normative pyramid. Only the “highest” norms and hypotheses are given in the diagram. Serious normative argumentation presupposes that the formulations are made more precise in various directions.

The system Ecosophy T is in Feyerabend’s terminology a *Gedankenlaborat* (Feyerabend 1978: 135) and should not be forced upon anybody, includ-

ing green philosophers with different philosophical tastes or convictions. Because philosophies as I see them concern fundamentals, no philosopher can refute any other. Basically there is room for several, and efforts even to describe the differences may founder because of specific presuppositions necessary in descriptions (rational incomparability of fundamental systems). To be rational, if it is something desirable, seems to require the realization of an essential philosophical pluralism that cannot be rationally verified.

What does Feyerabend write on this matter?

Philosophical relativism is the doctrine that all traditions, theories, ideas are equally true or equally false or, in an even more radical formulation, that any distribution of truth values over traditions is acceptable. This form of relativism is nowhere defended in the present book. It is not asserted, for example, that Aristotle is as good as Einstein; it is asserted and argued that "Aristotle is true"; as a judgement that presupposes a certain tradition, it is a relational judgement that *may* change when the underlying tradition is changed.

(Feyerabend 1978: 83)

This is completely compatible with Ecosophy T. Feyerabend's "political relativism" is also compatible, although I find the term *relativism* misleading. The more authentic our search for truth, the more firm is our membership in a particular philosophy or kind of "practice" or kind of "tradition." Insofar as there is any meaning or validity attached to announcements of the kind "x is a right," it is not relative, but relational, that is, basically related to a philosophy or practice. This relationalism, rather than relativity, is implied in Feyerabend's own unqualified, nonrelativist affirmation of equal rights:

Political relativism affirms that all traditions have equal *rights*: the mere fact that some people have arranged their lives in accordance with a certain tradition suffices to provide this tradition with all the basic rights of the society in which it occurs.

(Ibid., p. 82)

As an example of something that is *not* a philosophy in the above sense, *anarchism*, in the terminology of Feyerabend, may be mentioned. "Even here I don't defend anarchism as an 'eternal philosophy' but as a 'medicine' that may have to be withdrawn when conditions change" (Feyerabend 1975: 22). On the basis, though, of which norms and hypotheses will it be

withdrawn? Their formulation will reveal deeper issues and take us a step in the direction of articulation of a philosophy. However, I do not see why anybody like Feyerabend, who is inspired by Kierkegaard's *Concluding Unscientific Postscript*, should formulate any systematic philosophy. Kierkegaard did not, and we are thankful that he didn't.

The Web of Communities and Its Administration

It is common in green politics to regard local communities as the basic political unit. In large urban areas the term *local* has to be taken in a rather wide sense so that mobile groups with a common lifestyle and high degree of cohesion are included.

Ever more comprehensive units of people are conceived as basically administrative, even if termed societies or nations. There are many reasons for this stress on small units. In political theory, its history is joined with that of the distinction between *Gemeinschaft* (community) and *Gesellschaft* (society)—between fairly autonomous groups with genuine personal bonds, a strong sense of belonging, and locally manageable technology, and the vast structures of states and nations.

Feyerabend announces that a "free society is a society in which all traditions are given equal rights, equal access to education and other positions of power" (Feyerabend 1978: 30).

Let us take an example. In arctic Norway there is among the Lapps a nomadic tradition, very different from the traditions of the now sedentary Germanic tribes in other parts of Norway. The latter think it is important to have a lot of big roads, and they love building extensive dams in order to increase the production of electricity. This "progress" is incompatible with the lifestyles of reindeer and their owners. Those Lapps who deeply want to maintain and further develop their culture cannot in any genuine way live together with urbanized people. What is needed for coexistence is a common administration, the state structure called Norway. I think the use of the term *society* in Feyerabend's utterances about free society might be a little misleading. Norway as an administration for two cultures is not a society. If *deeply different* traditions are to be defended, this requires of us that we do not take the bigger units of humanity too seriously as societies. They are, rather, administrative structures.

UNDERSTANDING NAESS'S UNIQUE APPROACH

Some will feel that this goes against world solidarity, but one green policy toward “developing nations” is that of mutual aid (Kropotkin 1955) from community to community. Communities within industrial states (not “societies”) try, for example, to cooperate with communities in Africa and other places without too much interference from higher administrative levels.

What Feyerabend primarily has in mind is probably the varieties of traditions, or lifestyles, of groups *within* a state or federation. Here I suppose that differences in ways of living (technologies, language, willingness to pay taxes) are in some respects rather limited. Feyerabend mentions equal access to education. This suggests a similarity in appreciation of (formal?) education. Some traditions, such as those of the culturally conscious Lapps, go contrary to this. They might ask for the right *not* to be “educated,” preferring communities without formal education (schools, etc.) but, of course, communities in which a lot of teaching goes on, the older teaching the younger. It is hoped that in the future (at least before the year 3000) it will be practicable to maintain and develop *deeply* different traditions even within fairly small areas. This evidently implies that the interchange between the traditions, the dealings between members of deeply different groups, functions without undue interference from those who monopolize scientific or expert “reason.” “[T]he exchange between traditions is an open exchange, not a rational change” (1978: 85). There must, however, be a kind of top-level administration, I am inclined to think, in order to avoid exploitation by groups that resemble certain well-known ones in our own century.

How does Feyerabend propose to solve these problems? Strange question. Did Kierkegaard propose to solve *anything*?

Self-determination is a key word in green philosophy, and it includes finding out things for oneself and by oneself: cognitive self-determination. Feyerabend has said things about expertise that fit in very well here, and he asks that “people” be allowed to solve problems (Feyerabend 1977: 138). A scientist or technician placed in the so-called center may have *the* solution of a problem, but mostly problem-solving is part of greater units or *gestalts* of action. The expert may help by offering fragments, but this often spoils the development of the greater wholes of action and living. Ivan Illich has

said things worth considering in this area. His main point is that science undermines the capacity of people to think for themselves.

There Are No Scientific Worldviews

Freedom is regained, old traditions are rediscovered, both among the minorities in Western countries and among large populations in non-Western continents. *But science still reigns supreme.* It reigns supreme because its practitioners are *unable to understand*, and *unwilling to condone*, different ideologies because they have the *power* to enforce their wishes, and because they *use* this power just as their ancestors used *their* power to force Christianity on the people they encountered during their conquests. Thus, while an American can now choose the religion he likes, he is still not permitted to demand that his children learn magic rather than science at school.

(Feyerabend 1975: 299)

Some pedantic comments are inevitable.

When one has lived with science as a naturalist, it means something different from what it means to Feyerabend. The “soft” sciences, like geography of plants and taxonomy of butterflies, invite us to join a practice and style of life very different from that of a particle physicist at Geneva or a mathematician at Princeton. The “soft” scientist need not “play the game of intellectuals.”

The discoverer of the pecking-order law, Schjelderup-Ebbe, the only world-famous Norwegian psychologist and ethologist, was early in life inordinately fond of watching the sexual and general social behavior of hens. He *could*, of course, have avoided discovering or inventing the law, but his discovery did not require anything like intellectual games or games of intellectuals. In debate, his arguments were often of a kind that made the occasion more charming than brainy—for example, “But what you say only shows that you do not *really* know the hen Marie.” His insect poems are less well known than his law but were closer to his heart. Nobody would insinuate that he ever considered joining a so-called scientific worldview. As a researcher, why bother? Philosophy and religion offer worldviews.

For the naturalist, there is no reason to reject magic if one is raised with it. Most kinds of genuine research do not interfere violently with tra-

ditions in nonindustrial cultures. In some of them, Western medicine is adopted in a way that does *not* imply rejection of myths. Superficially, "hard" science and a so-called scientific worldview dominate the people's minds, but careful scrutiny often reveals nonconformity. Earlier people doing research on extinct animals were struck by the beauty of those organisms and their immense diversity of forms. They tended to be conceived of as divine creatures. At that time, though, it was difficult to make enough money to continue such research indefinitely. Then came the discovery of the close connection between certain genera of fossil forms and the presence of oil. Suddenly there was plenty of money around. The "soft" researchers continued much as before, sometimes doing a little bit of "hard" science, but only enough to placate the boss. Their minds are unruffled, not dominated by (hard) science.

In short, I think children could learn both magic and science. There is no necessary conflict. It all depends on how things are introduced. Or more generally: research can be explained and exemplified without interfering with the basic beliefs of nonindustrial cultures. This holds true even of theoretical physics. A physicist who today adheres to beliefs generally classed as mythological, and who is firmly convinced of the superiority of mythological thinking, translates the crucial parts of the language of contemporary physics into his own language. It is not easy, one of them told me, but it works.

Because of the considerable freedom in choice of theoretical constructs, and also because of the intimate link between the scientific vocabulary and empirical procedures (that is, actions, practices), forcing science on people is rather different from forcing upon them a definite dogmatic religious worldview. What is happening today in schools and universities may be understood in part as a forceful adaptation of science to suit the basic goals of centralized industrial societies. Science may thus function as an ideology, but not eternally and not out of any historical or other kind of necessity.

In light of the above, I would like to modify one of Feyerabend's formulations. Whereas an American can now choose the religion he likes, he is unfortunately not permitted to choose the kind of science he likes. If he likes science along the lines of green science and teaching policy, his offspring should be treated as child naturalists, enjoying backyard zoology and other marvelous experiences.

Conclusion

In regard to both rationality and its special expression, science, I differ at least in terminology from Feyerabend. However, some eminent green philosophers—Ivan Illich among others—favor a view closely similar to Feyerabend's.

Feyerabend has not, as far as I know, taken on certain central green issues such as self-reliance and decentralization. They have important implications for scientific policy. When he does take up central issues, they belong, broadly speaking, within the sphere of green philosophy and politics.

Hero worship or advocacy of the dichotomy hero-nonhero is not characteristic of green philosophy. It suggests a kind of competition and subservience that limits self-realization. If Feyerabend rejects the thought of being a green hero, or finds it contradictory, that is a good sign.

My ultimate conclusion might be thus formulated: Feyerabend writes as if he maintains many views that are characteristic of green philosophy and politics, and he applies those views to science, education, and rationality in an original way.

Reflections About Total Views

This article is written under the impression that broad philosophical systems (like Spinoza's) are of great value insofar as they articulate the deepest insights of which human beings are capable. Such systems, in the form of total views, are therefore of great importance in philosophical thinking. This article does not seek to substantiate that position, however. Rather, it points to the absurdity both of explicit total views themselves and of presuming to criticize such views without, at least implicitly, adopting one.

How Far Can I Extend the Area of My Own Ignorance?

Most of us can achieve greater modesty by changing in certain well-defined directions. There are limits, however, such that further steps in those directions no longer increase our modesty. If a person demands less and less attention from others, he soon gets into conflict with his environment. For example, if in some dramatic way he rescues a child from a fire, deliberate and systematic efforts to avoid subsequent favorable attention will tend to generate immodesty in the form of moral ambitiousness or uppishness. The net result of his efforts may thus ultimately be negative, owing to a lack of moral sensitivity and an uncritical persistence in assuming that a certain kind of change will guarantee an increase of modesty, whatever the amount.

It is not, however, the ethics of modesty in claims about one's own ig-

This article was reprinted with permission from *Philosophy and Phenomenological Research* (Brown University) 25 (1964): 16–29.

norance that I am concerned with here. Rather, my concern is with the epistemological problem of how much—given a definite but gradually widening universe of discourse—one can explicitly claim not to know without making the mistake of underrating one's knowledge.

If I say with due humility that there is something most people know about but I know nothing about, this may be a genuine expression of modesty on my part, but if I say that I know less than anyone else or that I know nothing whatsoever, this involves not a further reduction but a startling increase in the boldness of my claims to knowledge. Modesty, whether moral or cognitive, seems to require abstention from any spectacular deviation from average behavior. Let me take an extreme example of a claim to know very little that would seem to require vast knowledge in order to be justified. Suppose I confidently declare myself the most ignorant man in the world. In doing so, I succumb to the gross immodesty of professing to know something very difficult indeed to know. (Socrates had to take the oracle's word for it; he did not find out for himself.) My claim concerns the world and all human beings, including Socrates and myself. Thus, a vast conceptual framework is taken for granted. If the declaration is made as a serious statement in a dialogue, the author will find himself in an awkward position. ("You know less than I?" "Certainly." "I didn't know that; so you knew something that I didn't." Or "Socrates knew more than you?" "Yes." "Then you know something Socrates did not." This kind of conversation might cover any subject.)

So much, then, for knowing about one's own ignorance.

There is, though, another set of problems about increasing the area of one's ignorance. How complete can this ignorance become? How little can we knowingly or unknowingly assume to be true? Does what we assume to be true tally with the claims we make about our own ignorance? Now, it seems clear that even if we do not affirm our ignorance about something, we will nevertheless, in more or less subtle ways, reveal how we would classify and describe that of which we profess to be ignorant. Rather in the way that ignoring something implies the possibility of eliciting from us a description or classification of whatever it is we are intent upon not attending to, so a description or classification can be part of the "sense" of our actions in regard to that about which we claim to know nothing.

Suppose that I discover in a burning house some meteorologists who

say they are studying typhoon tracks—a subject about which I have honestly claimed to know nothing—and suppose that I urge them to run out before it is too late. I shall thereby implicitly claim to know that the study of typhoon tracks or the tracks themselves will not put out the fire. Then how is the claim to know or to presume absolutely nothing about typhoon tracks to be understood? How could my ignorance of the phenomenon be increased beyond, say, my being able to give the sketchiest classification of it? Is the implicit claim about knowledge of typhoon tracks to be understood as just an isolated item in my knowledge, having no connection with what I already know, for example, about burning houses? I still treat the meteorologists as if I know that their knowledge cannot reveal my behavior in that particular situation, my effort to get them out, to rest on a set of mistakes. Moreover, if the meteorologists demand explanations for how I can presume their study to be irrelevant, if I really know nothing about typhoon tracks, I may start arguing in support of my claim about the irrelevancy, and in that case I shall almost certainly show that I think I know a great deal about typhoons.

Tentatively I conclude, then, that any articulate *docta ignorantia* or agnosticism is embedded in gnosticism or dogmatism. If this were not so, my ignorance could hardly be experienced as ignorance about something. As soon as it is about something, a piece of ignorance is like a hole in a Swiss cheese—it is only there because of the cheese around it. If you want a colossal hole, you must provide a colossal cheese.

An increase in claimed knowledge, a beautiful analogy tells us, is like the increasing light from a torch in the vast darkness. The larger the pool of light, the greater the periphery of the darkness surrounding it, that is, of admitted ignorance. However, some “child of darkness and doubt,” eagerly increasing the reign of darkness, may make the converse discovery, that the more he expands the sphere of darkness, that is, of known ignorance, the greater the expanse of enveloping light, that is, of knowledge.

On the articulate and neatly conceptual level—the level I am solely interested in here—the character of ignorance as ignorance about something reveals itself in statements within a conceptual structure, a set of categories. Moreover, the responsible use of the conceptual structure presupposes, or at least seems to presuppose, more or less extensive knowledge. Nor is the knowledge merely of greater or lesser extent; it is also system-

atic; a character of totality is implicit in most of our everyday reasoning and action, even if this does not show itself as an explicit total view about the world. Such an assumed unity seems to be a prerequisite if a person's particular arguments and acts are not to seem meaningless and pointless. There must be this connection with other mutually supporting arguments, beliefs, and attitudes, even though the person himself may be unaware of the implicit unity and perhaps quite unable to verbalize the intricate web of mutually supporting elements. This emerges from the fact that withdrawals of claims to knowledge can go only so far. The attempt to extend and multiply disclaimers reveals and comes up against an underlying structure of unquestioned assumptions.

When we deal with limits of ignorance or known lack of knowledge, it is tempting to introduce the terminology of *frames of reference*, saying something to the effect that the necessity of an implicit frame of reference makes it difficult, perhaps impossible, to justify or even formulate the claim that there is at least one thing about which one knows nothing at all. So that, in professing ignorance, Socrates placed himself and his ignorance within a total or comprehensive framework, which he implicitly presumed to be adequate. That which is not known is adequately classified as unknown only by virtue of what is assumed not to be unknown. Our search for truth, and our belief or disbelief in finding it, can only operate within a frame of reference, or at least within a succession of such frames, but then how do these frames stand with regard to knowledge, once they are discovered and made objects for inquiry?

Explication of Fundamental or Total Frames— Higher-order Scepticism

In the history of philosophy, the system builders have proposed solutions of all problems that are not taken to be questions of detail. The conventional classifications of the problems comprise logic, ontology, epistemology, methodology, ethics, and aesthetics.

Suppose our child of darkness and doubt now devotes himself to disclaiming knowledge within these higher-order categories?

Applied to a set of fundamental ontological beliefs or basic premises, whether they are true or false, tenable or untenable, professed ignorance in-

volves a claim to know something that is true of the whole world, or of whatever is most fundamental within a certain area of it. The vastness of the pretension is of the same order whether it is in the belief in knowing or in the belief in ignorance. If I maintain it to be true that I do not know, for example, whether the ultimate source of knowledge is experience, I must regard myself as already acquiescing in the use of a conceptual framework that includes such terms as *knowledge*, *experience*, and *ultimate source*. If I know that I ignore the question of whether Aristotle's ontology is tenable, I must know what it is that I ignore. (I must also be informed about what knowledge is.)

If I claim not to know whether a definite comprehensive ontology—Spinoza's, say—or set of basic principles—Aristotle's, say—is tenable or untenable, my explicit or implicit frame of reference is itself total, comprising all the world, whatever that is, encompassing even the horizons of great philosophers.

The effect of assuming one framework rather than another makes itself felt, or is shown, over the whole area of reasoning or action covered by the categories in the framework. A conscious modification of a formerly implicit frame of reference may result in modifications not only of what we conceive to be true or false, but even of what we conceive to constitute a search for truth. This happens, for example, when our attention is directed to research itself as an object of research and to forms of agnostic or sceptical conclusions as a particular instance of a possible result of research about research.

Suppose we develop a very strong form of epistemological scepticism, avoiding the classical inconsistency attributed to extreme scepticism by only a hair's breadth. Once having developed this scepticism, we might start to reflect upon our own developments and try to make explicit some of the implicit assumptions, rules, and premises used in arriving at our scepticism. Thus, we might succeed in grasping a fragment of the frame within which we were working as we developed our sceptical epistemology. Our explicit scepticism brings to light the "animal faith" we had in the conceptual structure and the fundamental assumptions underlying the arguments for our scepticism and the statements expressing it.

Thus, we may grow to doubt our sceptical methodology, once its principles have come to light. To what extent, then, is it possible for us to shun

successively the enjoyment (or assumption) of truth with regard to total views, which we come to glimpse? How far back can we consistently go toward "knowing nothing"?

It is usually assumed that a total viewpoint, taken up in the neighborhood of "I know nothing," is at least in part attributable to the choice of an "I know" concept in the neighborhood of "I have incorrigibly true knowledge." This results from a frame of reference that, once incorrigibility is granted, allows any belief backed by standard evidence in the field automatically to become knowledge; all we need is enough evidence. At least some powerfully sceptical attitudes, however, are characterized not by a localized doubt concerning some mathematical or perceptual statements usually classed as absolutely certain, but by an all-pervading, diffuse feeling of questionableness relating to all conceptualizations, all positions whatsoever. Here, the very act of saying or thinking that anything is such and such rather than anything else, is not intimately accompanied by clear and articulate questioning but is done in a mode of general questionableness. Reflections in this sceptical attitude may find expression, but not directly as assertions.

Here, of course, an important point arises: if the sceptic does not assert anything, if he fails even to pose an articulate question (based on the acceptance of a definite conceptual framework), then his scepticism hardly amounts to anything that philosophers can dispute. Perhaps they may be influenced by his behavior, but only in the way their moods and tempers are affected by the weather. This may be conceded, but it should be borne in mind that important parts of philosophical literature are writings thrown into our discussion that, taken as wholes, may not be expressive of anything so determinate as a position. I think here of Plato's early dialogues and of Kierkegaard's *Concluding Unscientific Postscript*. Within such writings we can recognize strings of reflections, but scarcely a position or conclusion consistent with every reflection in the work. The author's intention may not have been to impart an opinion on any subject at all. There are certainly many advantages in thinking of philosophy as an articulated search for something, giving rise, at its best, to the establishment of conclusions concerning some sorts of clearly formulated questions. On the other hand, it might not be inappropriate to view it as an essentially aimless activity, its reflections occurring in strings that now and then and for

certain stretches of time condense into definite sets of opinions but mostly go beyond such products, disengaging the thinker from his work.

Naturally, if the published works of philosophers (of the Western tradition) are taken to reveal the essence of philosophy, one inevitably gets the impression that a philosophical achievement consists mostly in arriving at conclusions in an orderly fashion. To look at it in this way, though, involves ruling out those philosophers who are capable of *epoché* or abstention from commitment to any position, in spite of being clearly aware of the arguments for and against.

To conclude this note about sceptical attitudes or general *epoché*, I would say that the articulate sceptic need not be thought of as choosing a set of strong requirements (e.g., “in corrigibility”) for “knowing”; he may choose any among a variety of requirements, including extremely weak ones. Even then, “knowing” is a kind of achievement, not yet brought about when one starts the search. That it has been brought about is something that must be believed before the unbeliever is to be disputed—and that is the important point.

Does Explication of a Frame of Reference Involve the Introduction of Another?

If we have an inclination to study the foundation rather than the superstructure, the presuppositions and assumptions rather than the conclusions of a system of beliefs, our interest inevitably turns from the explicit to the implicit. If we study an argument and end up with a strongly sceptical conclusion in terms of requirements, this indicates that our attention is turned toward the stringent requirements for “knowledge” that are implicitly assumed in arriving safely at the conclusion. Then our attention is apt to shift toward the question of how one is able to find out what concepts a sceptic implicitly uses. What are the methodological beliefs in this case? Once they are explicated, are we prepared to accept these formerly implicit assumptions? Quite possibly, a shift to a wider or deeper frame (n) makes us sceptically uneasy about our former sceptical uneasiness—or perhaps just no longer interested in what those (n–1) methodological beliefs led us to conclude.

Those writers who in a few sentences prove that scepticism is incoher-

ent usually presume a very weak concept of knowledge, a concept such that we practically cannot open our mouths without claiming to know something.¹ There is no good reason, however, why a person inclined toward scepticism should incline toward an unusually weak concept of knowledge.

The shifting of attention from one frame *A* to another frame *B* in which *A* has been conceived proceeds within a new implicit framework in which both *A* and *B* can be conceived and explicated. As we move back, we step immediately and inevitably from one frame to another in a regressive series. In this predicament it is tempting to try to do without this talk of frames. Can we not dispense with it and the predicament together? Do we really use or have an implicit frame of reference? How did we manage to get this idea involved in our reflections? What presuppositions did we use here? This kind of reflection about our frame-of-reference thinking is also a case of making our own assumptions explicit. As an assumption, this thinking is itself a proper object for study. Moreover, since it is only an assumption about the nature of our methodological beliefs in general, it would seem to be dispensable even if they are not. Nevertheless, dropping this terminology does not seem to help us answer the questions that gave rise to it.

It seems that we are caught in a trap, unable to free ourselves and make a fresh start; we can inspect all the beliefs we have had until the moment of critical inspection, but we never reach the critical inspection itself. We may here quote some acute reflections of Kierkegaard concerning the System—that is, in our context, any attempt to explicate a fundamental frame of reference:

The System begins with the immediate, and hence without any presuppositions, and hence absolutely; that is, the beginning of the System is the absolute beginning. This is quite correct, and has also been sufficiently admired. But before one started with the System, why is it that one did not raise the second, equally, aye, precisely equally, important question: How does the System begin with the immediate? That is to say, does it begin with it immediately? The answer to this question must be an unconditional negative.

(Kierkegaard 1941: 101)²

We have referred above to the intended global character of a framework explicated as a set of fundamental beliefs or assumptions. The unavoidable slip into higher-order frames and the resulting infinite regresses suggest

that it is in principle impossible to formulate a set that has the intended character. The character of wholeness refuses to reveal itself in what we grasp and formulate in discursive thinking. The impossibility of formulating a set of fundamental principles that is global, suggested by the inspection of beliefs, itself involving uninspected methodological principles, is analogous to that of blowing up a balloon from the inside. To inspect the set one must do something analogous to blowing new air in from the outside. Then, to inspect that process one has to regard the outside air as itself enveloped by another layer, and so on. This illustrates the regressive character of explicating frames of reference.

This reasoning and the conclusion itself can, however, be made the object of critical inspection. Pieces of its frame of reference can be brought to light, tacit assumptions can be made explicit. This activity, though, even if highly successful, does not necessarily furnish a basis for rejecting that reasoning or its conclusion. It may be left suspended in the air, because the rejection is itself only an example of the kind of thing rejected.

There is still another aspect of the (assumed) impossibility of settling on a fundamental set of principles, and that emerges not in the question of attempts at increasing our ignorance, but rather in the closely related attempts to increase and multiply our doubts with a view to establishing a platform, however small, of truth that no sane man could dispute. It will be seen that differences of procedure determine extreme differences in the resulting platforms and that differences in fundamental orientation or vision seem to determine the procedures.

Descartes doubted, using his maxim “Do omnibus dubitandum est,” but he conceived himself, René, born 1596, to be inspecting beliefs that he, René, had cherished. This egocentric frame of reference his doubt did not touch. There is nothing very strange in this situation as long as we take “all” (*omnibus*) as it is often used in everyday situations, as an expression of less than strict universality. If “all” is successively widened in scope, there will still be some frame of reference that is untouched by doubt. For Descartes, it was natural to persist in retaining himself, or his thinking, or his doubting, as something that breasts the waves of critical inspection. This fundamental orientation gave a frame that was inconsistent with a doubt that he was there all the time, doubting. Thus, as a consequence of his particular orientation, he grasped a first indubitable truth.

What I should like to stress here is the intimate relation between the conscious, explicit conviction that he, René, was doubting and therefore, of course, existing, and the conception of the task: that he, René, should doubt. As long as René's conception of his task is not challenged, the result follows. All the conceptualizations, points of view, and beliefs inherent in the egocentrically conceived task and its implementation are then left untouched by doubt. The consequences of the conceptualizations are experienced by René as absolute truths and therefore as a starting point for system building.

Let us turn now to Baruch de Spinoza, who as an admirer of Descartes in his youth presumably had the same idea of radical doubt and egocentric introspection. Let us speak of Baruch rather than of the Benedict of Wolff's (1963) terminology, stressing the Jewish religious core of Spinoza's thinking rather than his relations to Descartes and the Renaissance. Baruch seems to have had a personality and background somewhat different from that of René. With Baruch they lead to a critical inspection of concepts of the ego, especially in its relation to God. Baruch could not be Baruch and doubt without God, and critical inspection of the task of doubting was quite possible within the God-centered frame. Philosophical mysticism was so deeply seated in Baruch that everyday pursuits were strange except within a definite framework—but not one in which God was sought from somewhere outside God. Rather, the framework was one that encompassed God and contained the possibility of explaining Spinoza himself and his capacity to doubt. His starting point is deocentric, not egocentric like Descartes's, and consequently such formulations as "I doubt therefore I exist" must have been foreign to him as a basic conceptualization or self-evident truth.

The highest kind of knowledge, the "third," is conceptualized by Baruch in terms of "eternal things," and it would be rash to identify the relation here of the subject knowing to the object known with the relation between a concrete person or an ego and an empirical or, more generally, natural object of some sort.

In some sense it is justifiable to say that the third kind of knowledge can *be* without *being held* by any person at all. "Baruch" cannot "have" the third kind of knowledge in any ordinary, naturalistic sense of having Descartes and Spinoza within the framework of a (roughly suggested) the-

ory of ultimate orientations. I doubt the adequacy of this framework, however. When one goes deep into the philosophy of Descartes, it seems that one's acceptance of the theory of ultimate orientation is itself affected. It acquires a Cartesian quality and is no longer suitable as a neutral frame within which both systems, Descartes's and Spinoza's, can be understood. On the other hand, going deep into the philosophy of Spinoza tends to produce the same effect: Descartes gradually getting absurd or incomprehensible. My conclusion, therefore, is that the framework accommodates both the views only at a very superficial level and that, in fact, the views are incomparable.

The experience of inspecting and judging the truth-claims of explicit basic views, and of going through a series of steps from the inspection and judging of these basic views already enjoyed to an examination of the set of views implicit in our first-order inspection, and then from the explicated first-order views to an examination of the second-order ones, and so forth, turns the notion of "fundamental" or "basic" into a relational concept: *B* is fundamental or basic in relation to *A*, *C* is fundamental in relation to *B*, and so on. The hunt for any natural resting point is as unrealistic as to reach out for the horizon. Maybe what we have tried to do is to make explicit what by its very nature cannot be made so, and perhaps all the explicit frames of reference from the first to that of the *n*th order are on the same level in relation to a kind of perpetual implicit total view. Maybe we "have" a kind of preconscious total view or frame—so total that all the higher-level reflections are in some way placed within it.

Our Preconscious Total View: A Fiction? Paradoxes of Total Views

If the preconscious view is a kind of matrix within which all attempts to unravel or bring to light the concepts and categories of any implicit frame of reference are to proceed, it cannot be identified with a philosophy like naturalism, naive realism, or any other intended systematization of common sense. These are explicit and verbalized and are defenseless when attacked by means of frame-of-reference dialectics. Is it, then, a *view*? The term suggests something that can be grasped and therefore inspected. This, in turn, implies the possibility of making it explicit.

Conceptions of explicit total views as found in the history of philosophy are riddled with paradoxes. Either a view is explicit but fragmentary or it is total but implicit. An analogous conclusion can be reached concerning the ordinary use of the term *view*. Views are of something from somewhere. This somewhere is not part of that something. So we cannot have a total view in this sense, made up of viewed and viewpoint. Admittedly, it would be misleading in ordinary situations to call a view fragmentary because it did not include the viewpoint, but then reflections on total views are themselves extraordinary.

It is perhaps only after studying attempts by philosophers and others to elaborate vast systems that we are led to ask what makes systematizers with "totalitarian" aspirations believe in the possibility of reaching their goal. Further, it is only after considering what seem to be the unavoidable paradoxes, or contradictions, that we are led to talk about and imagine a kind of view, or rather disposition, that we have before making philosophical inquiries—a "totalitarian" disposition that makes it appear reasonable and even important to elaborate an explicit total view. We may refer to such an initial view as preconscious in the sense that parts of it, perhaps any part whatever, can be made the object of our concentrated attention and will then appear to us as fresh, verbal expressions of something we had expressed already in indirect or nonverbal ways.

Given the paradoxes inherent in conceptions of explicit total views, it is important to inquire whether any of the great philosophers really intended to elaborate such views. Aristotle's doctrine of absolute and final principles (e.g., the principle of contradiction) is an attempt to base all his thinking and the resulting all-embracing system upon an intuitively certain foundation. It testifies to his greatness that he knows he cannot argue in favor of his own first principles, because this would imply the existence of a layer of principles still deeper than the first principles. That is, it would involve a contradiction: first principles as secondary, ultimates as penultimates. Recently, Neothomists have tried to elaborate a total view consistent with basic Aristotelian views and modern scientific knowledge, but perhaps the most famous undertaking since medieval times in the field of all-embracing, supreme synthesis is that of Spinoza in his *Ethics*. This book together with his *Treatise on the Correction of the Understanding*, in which some of the methodology of the *Ethics* is stated, represents a system

that plainly intends to answer all the main questions, including questions of framework.

The supreme systematizers have always omitted details, relegating that work to the formal and empirical sciences and working within a fixed ultimate framework.

In the conception of the *Encyclopedia of Unified Science* (by O. Neurath and others), the vision of a scientific total view and that of an encyclopedia are merged into one. Adopting a so-called onion structure, that is, starting with two volumes on basic fields, and adding sets of volumes treating the same fields in greater and greater detail, the creators of the *Encyclopedia* conceived it as a total system.

The difference between a total view and an encyclopedia, as here conceived, is that in the encyclopedia there must be details, whereas no single detail is necessary to make a total view complete. In a total view just enough is said to cover the essentials or principles. How much this is, we leave open.

Jeremy Bentham (e.g., 1973) tried to formulate all-embracing general views, and also to elaborate some of them in the greatest detail. His total view would not have been less complete, however, if he had not prescribed a definite color for ballot boxes.

Whatever our views regarding the “depth” of particular philosophers, we may safely assume that most of the great philosophical systematizers intended to form explicit total views. The question of the genesis of those views is therefore a very real one.

The Genesis of the Belief in the Possibility of Total Views

How might it be explained from the point of view of psychology or social science that man has started to talk, or started to believe he has been talking or can talk intelligibly, even intelligently, about his total view—his logic, ontology, epistemology, value system—in general? How is it that he has come to conceive of the possibility of regarding his own total view as one explicable view among others?

Perhaps the belief has developed in this way: It may strike us that a person always thinks and believes in some definite way, that is, in only one of the many possible ways we can envisage, the range of possibilities being

implicitly determined by our own (observer's) frame of reference. To articulate clearly and succinctly what distinguishes our own view from that of the other, we proceed to make explicit not only the other's view but also our own; and we set about the latter job as if it were of the same kind as the first, that is, as the job of describing the other's view, something already accommodated well within our own framework. However, we ourselves are not accommodated within our own framework, and this makes the second job totally different from the first. To carry it through seems to me to be of the same order of difficulty as to eat not only part of oneself, but all. The analogy that generates the belief in the possibility of such an explication is spurious. A view that comprehends other views does so by pinning the various views it comprehends to something else, the accommodating viewpoint. However, this latter can be explicated in its own turn only by being accommodated in the same way, by being pinned down to something else, and so on.

Since our views about the other person's views are conceptualized well within our own frame of reference, our own views as contrasted with his are also thus placed. Being primarily interested in contrasts, we take the part for the whole. That is to say, one's own ultimate frame is overlooked.

The same goes for another possible way in which this belief is fostered, namely, when we look back to examine earlier phases of our own lives. Koestler (in Crossman 1949: 68) says that "My particular education has equipped my mind with such elaborate shock-absorbing buffers and elastic defenses that everything seen and heard became automatically transformed to fit a preconceived pattern."³ From the belief in an all-embracing knowledge of one's own mind as it was at a previous stage of development, only one small but errant step is required to conceive oneself as having at the present moment, and knowing, a definite general outlook that can be made verbally explicit as one outlook among others.

In psychology, as in other sciences of human beings, concepts of total views have been introduced, and it has apparently been taken for granted that they can be used in research to make neutral, adequate classifications of individuals or groups. Let me quote some words from a strong believer (Walsby 1947) in total views: "Our revised, more dynamic and concrete conception of an ideology may now be defined as the complete system or

cognitive assumptions and affective identifications which manifest themselves in, or underlie, the thought, speech, aims, interests, ideals, ethical standards, actions—in short, in the behavior—of an individual human being.” Walsby’s belief in an underlying ideology is strikingly similar to the belief in a God that manifests itself in all that happens in the world. It seems that there is a strong Hegelian trend in research about ideology, much influenced by the sweeping concepts of Karl Mannheim. In his *Ideology and Utopia* Mannheim (1952: 49) writes: “Here we refer to the ideology of an age or of a concrete historico-social group, e.g., of a class, when we are concerned with the characteristics and composition of the total structure of the mind of this epoch or of this group.”

The ideology of a person observed by Walsby would have to be described and classified in relation to a framework that has to be so comprehensive as to embrace completely that of the observed person. The ideology of an age or of a historico-social group observed by Mannheim must be transcended in every respect by that of the group or age of Mannheim. The “total structure of the mind” of Professor Mannheim himself must, in the way of divine intellects, furnish a frame of reference and conceptual structure of a most comprehensive or value-neutral kind.

Concepts such as these are potent factors in building up images of “the fascist,” “the communist man,” and other creatures, images that cannot be reached by ordinary total views from the total view of the observer. One cannot argue with them, but they understand the language of power.

Imre Hermann, Levy Bruehl, Mannheim, Walsby, and many others do not seem to doubt for a moment that the fundamental beliefs and attitudes of others—for example, their logic—can be described and compared with one another, irrespective of how different they are from those of the investigator.⁴ When the victims of a total description are so-called primitives, the observer is rarely confronted with a reversal of roles—the victim describing the total view of the scientist. If, however, the social scientist is faced with appreciative and verbally nonprimitive proponents of the systems, whether critical or indignant, he is apt to become acutely aware of at least some of his own assumptions, and he is led to talk—or believe he could talk—about his own general frame of reference. He thus may be led to believe he has a total view (capable of being verbalized) during the process of

UNDERSTANDING NAESS'S UNIQUE APPROACH

rationalizing his implicit assumption that he is able to discover and adequately describe the total views of others. What he more or less uncritically has imputed to others, he now feels compelled to impute to himself also; he insists he has a total view and is willing to verbalize it, using words such as "the world," "man," "society," "liberty," and "progress."

It is not my aim here to develop in detail hypotheses about the genesis of belief in the possibility of explicit total views. The aim is the more modest one of suggesting that such views have certain paradoxical characteristics, which makes it highly interesting that they are believed in.

The World of Concrete Contents

In this paper, an attempt is made to find a coherent verbal expression of the intuition that reality is a manifold of more or less comprehensive wholes (gestalts), all discernible in terms of qualities. Quantitative natural science is thought to describe abstract structures of reality, not contents. The qualities are neither subjective nor objective; they belong to concrete contents with structures comprising at least three abstract relata: object, subject, and medium. Their status is that of *entia rationis*, not content of reality. Recent developments in physics suggest that we shall look in vain for physical “things” of which reality is composed. Adequate expressions of concrete contents form designations rather than declarative sentences. They may obviously contain value terms. The attempt to formulate an ontology along the suggested lines seems to be closely related to phenomenology of a Heideggerian rather than Cartesian kind. It serves the endeavor to change the conception of the humanity-nature relationship.

The Neither-nor and the Both-and Answers

In environmental debate there is a constant complaint against those who fight to “save” a natural being (a river, a wood, a sea, a kind of animal or plant, a landscape) that they mainly express feelings and subjective likes and dislikes. They are said to lack a sense of objectivity, and ultimately to lack adequate reference to reality as it is in fact and not just as they feel it.

Effective counterarguments need to be of a philosophical kind. They

This article was reprinted with permission from *Inquiry: An Interdisciplinary Journal of Philosophy* (New York and London: Routledge, Taylor & Francis Group) 28 (1985): 417–28.

may, for example, be of a psychological or political nature. Those who happen to be at home with epistemology, and related more or less abstruse subjects, may use this to their advantage.

Suppose we put our right hand, which has been exposed to cold air, into a pot of water, and we exclaim "Warm!" We then put our left hand, which has not been exposed, into the same pot and exclaim "Cold!" Is the water warm or cold?

Galileo's kind of answer is: neither warm nor cold. The water as such, in reality, or in itself, is neither warm nor cold. These are "secondary" qualities. The water as such has only "primary" qualities.¹

Protagoras's answer according to Sextus Empiricus was: both warm and cold. The water has both qualities, but the condition of the hands has the effect that one of them registers only the warmth, the other only the cold.²

So much about secondary qualities of water in a pot.

Suppose we put our right foot, which has been exposed to cold air, into the calm sea, and we exclaim "Delicious!" or "Encouraging!" or "Cheering!" We then put our left foot, which has not been thus exposed, into the sea at the same spot, and we exclaim "Detestable!" or "Discouraging!" or "Abominable!"

Protagoras's opinion, according to Sextus's interpretation, might also be that the sea is both encouraging and discouraging, and both delicious and detestable. Consequently, according to Protagoras as interpreted by Sextus, as interpreted by me, water has all kinds of qualities, but a sensitive being is only able to experience a limited number of them. What it will experience depends on its state.

In what follows I shall maintain that Galileo's neither-nor position leads to absurdities. The position of Protagoras is deeply problematic but can be saved from absurdity if very freely interpreted. Furthermore, I shall suggest that it is philosophically tenable to maintain that the world we live in (the *Lebenswelt*) has secondary and tertiary qualities. What we feel about something belongs to the qualities of the world as we know it. What does not have such qualities is the abstract structure of the world we live in.

When environmentalists talk in terms of feelings, they talk about reality as it is in fact.

Rejection of Absolutist *Ding-an-sich* Conceptions

The Galileo type of answer employs a distinction that is useful within limits but breaks down if absolutized. It is the famous distinction between things in themselves and things in relation to other things (the term *thing* taken in a very broad sense).

Essential to ecological thinking, and also to thinking in quantum physics, is the insistence that things cannot be separated from what surrounds them without smaller or greater arbitrariness. Thing *A* cannot be thought of in and of itself because of internal relations to thing *B*. Neither is thing *B* separable, except superficially, from *C*, and so on.

As we know them, things have properties referring to sensing, action, and comprehension. Such primary qualities as the shape of a thing vary with the perspective. There is no absolute shape of the thing-in-itself. No quality of a thing is such that it is separable from others. General relativity excludes even movement or rest. There are no primary qualities. A triangle is either without extension as in axiomatic, formal geometry, or it has a color, for example, black.

In thought and communication we need to separate; otherwise, orientation becomes impossible. The utterance “arm” relates to a whole set or constellation, but nominally and grammatically the utterance refers in our example just to “water.” More precisely and specifically, it refers to water in relation to a complex set or constellation of relata, of which the most obvious are the hand, the water, the medium, and the subject uttering “Warm!”

These relata, individually or collectively, are not things or entities in themselves, in spite of the existence of words and phrases suggesting the possibility of isolating each of them. The relations between the relata are internal.

There is a similarity between this view and those expressed by the Buddhist formula *Sarvam dharmam nihsvabhavam*. Every element is without “self-existence.” The views I defend need no support from Buddhist philosophy, however; Western traditions suffice.

In short, the both-and answer may be formulated thus: There are no completely separable objects, therefore no separable water or medium or or-

ganism. A concrete content can only be related one-to-one to an indivisible structure, a constellation of factors. Concrete contents and abstract structures make up reality as it is in fact. It is misleading to call it real only as felt by a subject.

The notion of irreducible constellations eliminates both objectivist and subjectivist views as characterized, for example, by J. J. C. Smart in relation to color (Smart 1961: 128). On the other hand, Protagoras's view as interpreted by Sextus is an objectivist view. Water as a piece of matter is cold. Both answers can be saved, however, by expanding the basis: the description should be related, not to water as a separable object, but to constellations corresponding to concrete contents.

Secondary and Tertiary Qualities and the Theory of Projection

As late as the latter part of the nineteenth century, mechanical conceptions of warmth and coldness were thought to imply the neither-nor answer. The experienced warmth or coldness is not a property of the water itself. To different temperatures of the water itself correspond certain levels of intensity of motion of its molecules. The motion in its capacity of being a primary quality is a property of the water in itself. Primary qualities, intrinsic or in the objects themselves, were conceived to be part of reality itself. The felt warmth was considered to have only a strange kind of subjective existence: not in the brain, not in space. General relativity and quantum physics undermined the thing-in-itself conception but did not cause any widespread major change of opinion.

Concrete contents have a one-to-one correlation with constellations; there is an isomorphism between the concrete and the abstract. When we say that the sea is now gray, the water of the sea is only one part of the constellation. Nevertheless, it is somehow the dominant part. We would not say that the air between the sea and us is gray, nor that we are gray. The sea has thousands of individual color hues as inherent properties, but not as an isolated thing. One must take the color of the heavens, the color of the plankton, the waves, the senses of observers into consideration. The colors of the sea are parts of innumerable *gestalts*.

According to the traditional doctrine of primary, secondary, and ter-

tiary qualities or properties, color is the projection upon the surfaces of things of color sensations generated by the senses. Only as a consequence of this projection do things look green, white, black, and so on. The perception of greenness in the mind is projected onto the external world.

The identification of primary properties with those of objects themselves leads to a conception of nature without any of the qualities we experience spontaneously. Now there is no good reason why we should not look upon such a bleak nature as just a resource. Every appeal to save parts of nature based on reference to sense qualities of any kind becomes meaningless. Every passionate appeal that reveals deep feelings, empathy, and even identification with natural phenomena must then be ruled out as irrelevant. The sphere of real facts is narrowed down to that of mechanically interpreted mathematical physics.

Worse still, the question of how secondary and tertiary qualities come into being is often answered by pointing to a (verily miraculous) capacity of the human senses and the human mind to create the colors and the beauty. A poet, says A. N. Whitehead ironically, should not praise the roses by himself who makes the roses red and beautiful. (Whitehead is, incidentally, one of the few Western philosophers clearly opposed to the doctrine of primary qualities.)

With these aberrations in mind I think it might be of value in deep ecology to suggest ontologies in which secondary and tertiary qualities are at least on a par with the primary; the former make up the contents of reality, the latter furnish models of its abstract structure.

The ontology I wish to defend is such that the primary properties (in a narrow sense) are *entia rationis* characteristic of abstract structures, but not contents of reality. Structures may be both, namely structures of *gestalts*, but not the ones to which I now refer. The geometry of the world is not a geometry in the world.

The both-and answer as elaborated here emphatically rejects the theory of projection. There is no such process as projection of sense qualities. The theory is a clever invention that makes it possible to retain the notion of things in themselves retaining their separate identity in spite of the bewildering diversity of secondary and tertiary qualities, but the price of this conservation of the Galilean ontology is high: there is no evidence whatsoever of a process of projection.

The Subject-Object Distinction and the Theory of Duplication

Suppose three people are said to point to the same tree but to attribute to the tree three completely different sets of secondary and tertiary qualities. How should we deal with the contradiction?

At a superficial level, contradictions are avoided by certain ways of talking: "The tree looks such and such to me," "I feel the tree to be such and such." A mere diversity of conscious experience is acknowledged; therefore, no contradiction arises on this level: Inside the consciousness of person P_1 there is an experience or image E_1 of a tree with the following characteristics . . . ; in P_2 there is E_2 , in P_3 , E_3 —with E_1 , E_2 , and E_3 all being different. The tree in the external world confronting P_1 , P_2 , and P_3 may be the same, and its properties are the primary ones, most adequately described by contemporary physics. Consequences: (1) in the example we get as many as four trees, one external and three internal; (2) when nobody looks at the tree, the three internal trees disappear and the external one is left by itself.

This way of avoiding contradictions between two or more observers results in a notorious duplication: there is a tree outside in the external world and a tree inside in the mind of the observer. Because of the development of physics, the tree outside is today conceived in extremely abstract form as a structure bearing no similarity to the internal trees. In the 1890s the external tree still had some perceptual (*anschauliche*) properties. Since Einstein and Heisenberg, though, these are gone, although Bohr has shown how this disappearance brings us back to the reality of laboratory constellations with secondary qualities.

The tree in the mind no longer has the character of an image or a copy, because the external tree of physics bears no similarity to the internal one. Furthermore, the internal tree is in the mind in a nonspatial sense. It is not in the brain, because then it would have been seen long ago by doctors. It is not even near the brain. If the external tree and the body of the observer are in Rome, this does not imply that the tree in the observer's mind is in or near Rome. It is no nearer Rome than the Andromeda nebula. It is not in physical space at all. Where is it?

The tree in the mind is private in principle, belonging to a specific per-

son or animal; it is “subjective.” The tree outside is “objective,” supposedly completely independent of any perceivers, a thing-in-itself.

All this is rather confusing. No one seems to understand the duplication theory. Nevertheless, if we take the neither-nor answer as a basic assumption, it is difficult to avoid a kind of duplication theory and a sharp, pervasive subject-object dualism. The both-and answer is also far from intuitively obvious, at least in our culture, but I think it can be effectively defended.

Spontaneous Experience Without Subject-Object Cleavage: Abstract Structures

When one is absorbed in contemplation of a concrete, natural thing there is no experience of a subject-object relation. The same is true when one is absorbed in vivid action, whether in movement or not. There is no epistemological ego reaching out to see and understand a tree, or an opponent in a fight, or a problem of making a decision. A tree is always part of a totality, a gestalt. Analysis may discover many structural ingredients. Sometimes there is an ego relation, sometimes not. The gestalt is a whole, self-contained and self-sufficient. If we call it *experience of the gestalt*, we are easily misled in a subjectivist direction.

When we describe a constellation of gestalt relations, it is important not to let the usual stress on the epistemological subject-object distinction dominate the expression. In spontaneous experience there may or may not be any ingredient corresponding to that distinction.

“Tiny me looking into the eye of a big whale” may be a concrete content with an ego relation as a genuine part. It is different from the previous examples because the qualities are not all sense qualities. The unity of this concrete content is best understood by stressing its gestalt character. The example refers to a gestalt of a fairly high order, that is, having lower-order gestalts as “parts.”

If “cheerful tree” and “dark and threatening tree” are two spontaneous expressions, analysis in terms of relations may lead one to conclude that they refer to “the same” tree. This sameness is definable, however, only in terms of an abstract structure, whereas utterances refer to two concrete contents.

The structure referred to is abstract and not to be confused with

gestalt structures within the concrete content: the tree may have branches and its color may contrast with a dark background. This reveals a structure within the total gestalt. The structure is given "phenomenologically," as structure within the concrete content. The sameness of the tree defined through abstract structures presupposes location in space of a kind that cannot be conceived as structure of a gestalt. Its space is an abstract structure, an *ens rationis*, and as is true of every theory, including that of gravitation, it is man-made.

My analysis at this point presumably implies a rather radical form of nominalism. I shall not try to make it explicit but merely mention that it is closely related to the view that relations between things, or more specifically, concrete contents, are not part of the world. Primary qualities—for example, shape—do not occur in our life-space except as contrasts between colors, for example, a black circle on a white background. According to the above, the concept of "circle" as abstracted from this concrete content is an *ens rationis*. The nominalism implied here is a nominalism of abstract relations. Problematic is the place of *entia rationis* "themselves" within gestalts of high order. A discussion of this is important, as is the more general question of intentional entities and intentionality, but it is not feasible to pursue those topics in this article.³

From Ethics to Ontology and from Ontology to Ethics⁴

Confrontations between developers and conservers reveal differences in experiencing what is real. What a conservationist sees and experiences as reality, the developer typically does not see—and vice versa. A conservationist sees and experiences a forest as a unity, a gestalt, and when speaking of the heart of the forest, he or she does not mean the geometric center. A developer sees quantities of trees and argues that a road through the forest covers very few square kilometers, so why make so much fuss? If the conservers insist, he will propose that the road not touch the center of the forest. The heart is then saved, he may think. The difference between the antagonists is one of ontology rather than ethics. They may have fundamental ethical prescriptions in common but apply them differently because they see and experience differently. They both use the term *forest* but refer to different realities.

The gestalts “the heart of the forest,” “the life of the river,” and “the quietness of the lake” are essential parts of reality for the conservationist. To the conservationist the developer seems to suffer from a kind of radical blindness. In turn, the latter’s ethics in environmental questions is based largely on how he sees reality. There is no way of making him eager to save a forest as long as he retains his conception of it as a set of trees. His charge that the conservationist is motivated by subjective feelings is firmly based on his view of reality. He considers his own strong positive feelings toward development to be based on objective reality, not on feelings. Moreover, as long as society is largely led by developers, he need not be passionate in his utterances. It is the struggling minorities who tend to be passionate rather than those who travel in the mainstream.

It is, I think, important in the philosophy of environmentalism to move from ethics to ontology and back. Clarification of differences in ontology may contribute significantly to the clarification of different policies and their ethical basis. One of the first things to do might be to get rid of the belief that humankind is something placed in an environment!

In an analysis that begins with concrete contents, the is-, ought-, and fact-value dichotomies do not look quite as they did from where Hume started, namely, at factual and value affirmations. Expressions of concrete contents are designations, not declarative sentences.

Expressions of the kind “object x has value y ” immediately lead to the question, Given an object x , how do I assess its value y ? If we start with designations of concrete contents—for example, “delicious red tomato to be eaten at once!” or “repugnant rotten tomato”—the evaluative terms are there from the very beginning of our analysis, and there is no separable tomato to value!

In “The is/ought dichotomy and environmental ethics,” David Bennett (1984) says that John Passmore and Aldo Leopold “agree on the basic ecological fact, but differ on how to value this fact. Passmore imports a restricted sense of obligation and maintains the fact/value dichotomy. Leopold accepts the community as both a descriptive and prescriptive statement.”

Perhaps Leopold’s point of view could be explicated by starting with designations of concrete contents of various sorts expressing what Leopold sees and experiences as community. The terms of the designations will in-

evitably include valuations. There would then, strictly speaking, be no fact upon which they agree and no value about which they disagree. Bennett seems to take an ontological point of view, close to that of Callicott: "[E]cology changes our values by changing our concepts of the world and of ourselves in relation to the world. It reveals new relations among objects which, once revealed, stir our ancient centers of moral feeling" (Callicott 1982: 174). The stirring is part of a gestalt, and as such not to be isolated from the "objects." What I have done is try to explicate what kind of change in concept of the world and status of the subjects is at issue.

I propose to identify the world with the set of contents, not with structures.

Between the items of the world conceived as contents in the form of gestalts, there are internal structural relations, but they do not add to the set of contents, and we are free to conceptualize them in different ways. The physicist's "world of science" is entirely one of abstract structure. Even color hues are defined structurally through places in color atlases. The ecosystem concept is used to describe abstract structures, and the deep ecology movement is to a large extent concerned with abstract structures. The importance of abstract structural considerations cannot be overestimated, but they are like maps: their function is not to add to the territory, the contents. Abstract structures are structures of the world, not in the world.

Appearance and Reality: Perspectivism

What, then, about the distinction between appearance and reality? Does the stress on contents favor appearance? If it did, something in the above argumentation would have gone wrong.

We have useful kinds of expressions such as "It appears to be such and such but isn't really such and such." If I express a content by the words "cheerful tree" and add, "Let us put it in our window!" my friend may say, "The tree is really very big and cannot be put in our window. You are deceived by the great distance." Or someone standing on the southern rim of the Grand Canyon may point toward the northern side and say, "Why is it that there is just moss on the northern rim?" His friend may not agree: "You are mistaken. The 'moss' is really a woods. The distance deceives

you.” The appearance-reality distinction in the above examples relates to statements that are true or false, not to designations of concrete contents.

If by “appearance” we mean something that is by definition or intrinsically an appearance to someone, we have presumed a subject-object distinction that cannot be generalized and adapted to a description of the world as concrete contents.

The rhetorics of environmentalism favor positive evaluation of natural phenomena, but, of course, concrete contents may include negatives. Someone marooned on Dawson Island in the Antarctic in 1977 said, “Sun, cold and unfriendly,” and similar expressions are common in any climate. The ontological emancipation of tertiary qualities does not imply uniformly positive evaluations of natural phenomena. In the terminology of *gestalts*, one may say that religion has tried to conceive the most comprehensive *gestalt* to be (intrinsically, of course) good, and Spinoza uses the term *perfect* to characterize *Deus sive Natura*. The problem of evil is still open, however. Nietzsche and others have used the term *perspective* much as we used the term *content* above: the world is the total set of perspectives. Usually, though, we find that the subject-object distinction is implied. The world is seen by subjects from different perspectives. The tree looks different according to the perspective of the observer. By walking around, we see the tree from different angles. Thus, “perspectivism” may mislead.

Similar reflections apply to Dewey’s and others’ terminology of “experience.” It is too natural to say “experience of whom?” “my experience,” “your experience,” and so on. The term *content* does not so easily lend itself to the introduction of a subject-object division. If used carefully, however, the term *experience* need not mislead.

In a metaphysically courageous article, T. L. S. Sprigge appears to work from intuition not very different from mine, but he seems to experience at least as many difficulties in articulating his views as I do in articulating mine. He encourages us, in the spirit of Heidegger, to think of the point of our consciousness as being that it supplies a home in which objects can enter into actuality, so that we as consciousness are to be thought of as existing for the sake of the objects that need us in order to exist—rather than its being the objects that exist for our sake (Sprigge 1984: 455).

This way of seeing our peculiar human “condition” is one of the appropriate ways of learning to appreciate “natural” intrinsic values. I consider it

indispensable, and I am grateful that Sprigge reminds us of that way. Here I shall only suggest two differences between his approach and gestalt ontology. First, the point of view of gestalt thinking dispenses with a concept of consciousness, at least of a kind that implies a duplication theory. (Perhaps Sprigge's concept does not imply such a theory because of his "absolute" idealism?) Second, by expressing valuation as inherent in the gestalt, the gestalt approach suggests less passivity than the Heideggerian-Sprigge approach toward "objects." Since Sprigge's examples often refer to beauty, I shall exemplify the expression of a concrete content, gestalt, or scenario that covers beauty and something else: "Beautiful acacias and grasses. A couple of beautiful carnivores slowly eat part of the leg of a herbivore whose beautiful eyes express measureless pain and a cry for help."

If the carnivores don't look too dangerous, the next scenario may well depict a scene of help being offered. In the terminology of concrete contents or gestalts, there is no need for references to consciousness and therefore no need to transcend a sort of neutral monism. Or should I more modestly say that, according to the gestalt project (in the sense of Sartre), there should not be any such needs?

Gestalt Ontology and the Deep Ecology Movement

Our starting point has been the neither-nor and both-and answers to questions of whether a thing has a definite quality. As already mentioned, elaborating the answer may lead in different directions. I am not maintaining that my elaboration is the only consistent one. The situation in epistemology and ontology is fundamentally problematic. What I maintain is that the framework of gestalt ontology is adequate, but scarcely the only adequate one, in attempts to give deep ecology a philosophical foundation: the world of concrete contents has a gestalt character, not an atomic character. I do not know of any better frame of reference than that of gestalts.

This account does not, as mentioned, minimize the importance of abstract structures such as ecosystems (with stress on *system*). Clearly, though, the theoretical debate centering on such concepts as "mature ecosystem" elucidates the man-made character of the conceptual world. When some ecologists negate the existence of mature systems, this does not imply the negation of any content of the world we live in.⁵

A Note on Definition, Criteria, and Characterizations

It is good that theorists of the deep ecology movement have different backgrounds, but this inevitably leads to different terminological idiosyncrasies, which, in turn, lead to pseudo-agreements and pseudo-disagreements. The situation is not serious and perhaps does not deserve much paperwork. With some hesitation I humbly admit that I am stuck with certain distinctions being expressed by certain words.

The word *criterion* I tend to use as follows:

x is a criterion of y if (1) x is a necessary and sufficient condition of y and if (2) it is testable whether or not x is at hand.

If x_1 is a criterion of y , this does not imply that there are other criteria of y . On the contrary, in empirical investigations one may normally work with a variety of criteria of the same kind.

The history of the term *criterion* is long and complicated. We find an early use and early conceptual analysis in Sextus Empiricus's *Outlines of Pyrrhonism* (1933). He discusses whether there are criteria of truth and says that the Stoics and others believed in the existence of such a criterion. The Academic Sceptics denied its existence, whereas the Pyrrhonic Sceptics were "still inquiring whether any criterion exists" (*Outlines*, bk. 2, chap. 4).

In certain ecosophies it will be important to discuss and use criteria of the following sorts: " x is a criterion of N. N. gaining (losing) quality of living through the process P "; " x is a criterion of N. N. gaining (losing) standard of living through the process P ." The criterion of the first sort may roughly be said to concern how N. N. feels at the start compared to at the

This article was written in 1989. It is being published here for the first time.

end of the process *P*. That of the second sort analogously concerns how N. N. feels about his general situation.

A third sort of criterion is "x is a criterion of N. N. gaining (losing) level of self-realization through the process *P*." An idea in Ecosophy T is that with widening and deepening of the self, the criterion changes. If N. N. gains in *power over* something or somebody through *P*, it may have increased his self-realization as long as his self was rather narrow, whereas it would not have increased it after N. N. had widened it (through a process *Q*).

Criteria are not definitions. Or, more clearly, the concept of a criterion is different from that of a normal rule giving a descriptive account of how a term is to be, or is used.

Let us consider a very unlikely example of pseudo-disagreement. Three slightly smiling persons heard Paris mentioned and each said something about Paris, but disagreed vehemently. Soon it transpired that the first meant Paris in France, the second meant Paris in Kentucky, and the third, living in Texas, meant Paris in Texas. They agreed when clear about the three usages of the term *Paris*. A descriptive account of what the term stands for, what it means in different situations or for different people, furnishes so-called descriptive definitions. (Requirement: the definiens expression must in principle be capable of taking the place of the definiendum expression ("Paris," "deep ecology," etc.) without changing meaning.

If a person N. N. is known to use the term *deep ecology* in three mutually independent meanings (connotations), N. N. cannot be said to have a theory or give an account of something he calls deep ecology. One may, however, describe what he says about three different topics. If *p*, *q*, and *r* are three sentences, each being a concise rendering of what N. N. says about one of the topics, eight judges who are asked to declare which assertions are true and which are false may come to eight different conclusions: true, true, true, . . . false, false, false.

A different situation is at hand if N. N. seems to use the term *deep ecology* in one way but has three rather different, perhaps not completely compatible ideas or opinions about the topic. The question of mutual consistency or compatibility does not in general arise when judging *p*, *q*, and *r*. If *p* concerns Paris in France, *q* Paris in Kentucky, and *r* Paris in Texas, incompatibility may be very rare. (A rare example: *p*—Paris in France is the most exciting city in the world; *q*—Paris in Kentucky is the most exciting city

in the world; . . .). If, however, *p*, *q*, and *r* are ideas or opinions about one topic, namely what N. N. means by “deep ecology,” consistency and compatibility are routine matters of concern.

As a special case *p*, *q*, and *r* are three proposed *criteria* whether a point of view can be said to express a deep ecology stand or is incompatible with deep ecology. In that case, the questions of testability, subsumability, and other questions arise that are rather complicated and need extensive discussion.

A third and last term needs to be mentioned in this connection: *characterizations*.

There are many characterizations of “the Age of Enlightenment,” “the Romantic period in German literature,” “the European Middle Ages.” No exact delimitations are required, no definitions, no criteria. One may feel it necessary for the sake of courses and exams to define the Middle Ages in Europe as the period between A.D. 500 and 1400 or 1500, but it is obviously a very crude definition. The adequacy of characterizations is testable, but only imperfectly. If someone finds that a characterization of the Middle Ages is rather inadequate because it is not valid for the period 1300–1450, it will be tolerated better than if it is felt to be inadequate in relation to 1100–1250.

My characterization of the deep ecology movement is of a peculiar kind insofar as I have invented the name of the movement. Therefore, a natural and valid question is, Is there really a movement—a fairly definite phenomenon—with the characterization I offer? Because of the just-mentioned peculiarity, the characterization tends to function also as a normative (rule-giving) definition. There is little sense in objecting that the deep ecology movement has a very different character. This happens, but only by considering aspects of the behavior of those who use *deep ecology* or *deep ecologists* as a positive term. Some critics or rival groups may then come to the conclusion that the deep ecology movement *really* is very different from the characterization offered by the chief theorists of the movement. This is an interesting development found in every social movement that touches contemporary burning social questions. *Freedom* is a term used positively by very large groups, but it has also elicited many strong negative reactions: “What is called freedom by . . . is only the unhindered exploitation of the weak,” and so on.

Complications of this kind make communication more difficult, but

THEORETICAL DIMENSIONS OF DEEP ECOLOGY

they do not constitute a decisive obstacle or make it advisable to change terminology.

Characterizations, however imperfect in their indefiniteness, are indispensable tools. They are not replaceable by definitions or criteria.

The practical value of the above distinctions is mainly that of reducing the frequency and seriousness of pseudo-agreements and pseudo-disagreements. What does my colleague (or opponent) intend to assert? Does he or she define? characterize?

Imagine a new kind of rules in playing bridge: "If somebody says 'three hearts!' it may mean what is traditionally meant by 'two spades!' You cannot know, and to ask is not permitted!" Only when they are playing will it transpire what each player has meant. With a number of such admissions of ambiguity, the play gets very complicated and even indecisive—like a confusing debate.

Avalanches as Social Constructions

Having been taken at least twice by avalanches, I have never felt them to be social constructions, but every word I utter about them may have social origins, and the same applies to the meanings of these words. As regards the meanings, they also have individual components in the sense that the conceptions people have who study or experience avalanches show marked individual differences. I say I have been taken at least twice because a third one was so tiny that most people would reject using that term. Had I been carried 20 feet farther, however, I might have perished because my skis had got into an awkward and painful position under very deep snow.

Every word in this narrative, including the word *avalanche*, has of course social and individual shades of connotation, but they do not affect corresponding connotation. I have not used the word *nature* here, but what I have just said holds also for that word. In the last hundred years the great diversity of usages of the word *nature* has been discussed, especially in the context of research in the history of ideas. Some people prefer to talk about nature as “social constructions,” but I do not think the more traditional way, the talk about various conceptions and ideas of nature, is inferior. The use of the term *deconstruction* has elicited much discussion, including a debate on the positive value of deconstructing construction.

Curiously enough, the assertion by supporters of the deep ecology movement that every living being has intrinsic or inherent value has elicited complaints that this implies a rejection of the 100 percent social (and individual) nature or essence of everything uttered about living beings

This article was reprinted with permission from *Environmental Ethics* (Denton, Texas: Center for Environmental Philosophy) 22 (2000): 335–36.

as beings in nature, and complaints that it neglects the vast sufferings of fellow human beings. The view that we have particular duties toward suffering fellow human beings does not conflict with the view that it is meaningful to do things for nonhuman beings strictly for their own sake. Extended care for life on Earth deepens care for human beings!

Mick Smith (1999: 360) has written:

While all would agree that “nature” is a prerequisite for social life, to speak of “nature” as being valuable in itself is still symptomatic for many on the left of a moral failure to prioritize the compelling immediacy of human suffering over our maltreatment of the environment.

He writes “nature” in inverted commas, as if he writes about the *word*, but perhaps he does not. If not, does he speak about nature? Anyhow, supporters of the deep ecology movement need not consider nature to have inherent value. Especially when we use the word *nature* as a near-synonym for the cosmos, I certainly do not apply the term *inherent value* to it. It is not empirically correct, I think, to suspect that certain supporters of the deep ecology movement downplay efforts to relieve human suffering. It is not uncommon to criticize people who work, for example, for less painful transport of pigs, suggesting that they neglect human suffering, but I think we agree that there are limits to what we can tolerate when it comes to such transport. Analogously, we may think that it is morally justifiable to use a very small part of 1 percent of what is spent on diminishing vast human suffering on the defense of richness and diversity of life on this planet. In strange contrast to the usual view among researchers that there are immense differences of conceptions of nature and of ways of relating to nature, Smith concludes:

Almost inevitably, the conclusion of such studies is “that there is no singular ‘nature’ as such, only a diversity of contested natures; and that each such nature is constructed through a variety of sociocultural processes.”

(Ibid., 361)

Basically, it is philosophically rather trivial whether there is only one conception of what is called nature or a thousand. Most conceptions have been heavily determined by important magical views, or by manifestations of the activity of gods. Fossils are sometimes considered to be made by the play of the devil. None of these views are *disproved* by modern natural science. Proofs belong in mathematics.

Docta Ignorantia and the Application of General Guidelines

What follows assumes acquaintance with the Eight Points and other condensed sets of formulations by George Sessions and myself.

The general formulations of levels 1 and 2, even 3, *sound* dogmatic at the T_0 level—even if they are not meant to be. This is a rather common feature of T_0 -level formulations. For example, the operators “Tentative conclusions!” and “Suggested guidelines:” or other colon-operators complicate unnecessarily the relations between sets of formulations. The T_0 level is by definition a point-of-departure level and requires a departure for preciseness and elaboration. If that is not forthcoming, little or nothing is gained. Unfortunately, more precise formulations and the necessary elaborations (explanations, comments) are likely to be published in little-known periodicals, if published at all.

Communication at the T_0 level makes it natural for some people to complain about crudeness, arrogance, delusions, and overestimation of the status of insight on the part of the sender of the formulations. Some people tend to complain about slogan thinking as well.

All these negative reactions can be fairly well understood and illustrated by an example, a normative T_0 formulation at the third level: “Decentralization!” Its slogan function during the time of the first green wave was clear and strong. It functioned, and still functions, as a guideline in thousands of situations of concrete decision, but the string of derivations from the very general guideline-utterance to a concrete decision was long in the early 1970s, and it will be longer and more complicated in the 1990s. One large field of application of the decentralization norm within the area

This article was written in 1989. It is being published here for the first time.

of green thinking in Norway had to do with the tendency of the power centers around the inner Oslo fjord to coerce the lesser local and district centers in arctic Norway. In general, the problem is that of (geographical) power center versus (geographical) power periphery. Within this large field one may specify a hundred lesser fields, "subfields of the first order"—for example, guidelines for building houses, disposal of trash, organization of university exams. Should a student in arctic Norway who wants to obtain a certain degree as it is offered in Oslo be compelled to undertake the long and costly trip to Oslo in order to pass an exam? "Decentralize the research facilities!" The establishment of a university at Tromsø, the world's northernmost university at about 70° north latitude, was in part motivated by the decentralization norm. It is now a flourishing university. What I am trying to indicate is the *very limited but at the same time powerful* function of a seemingly dogmatic, arrogant, crude, short T_0 formulation such as "Decentralization." We may point to the slogan function of "Decentralization!" but it also has a function in serious thinking within the general efforts to introduce wise policies.

From a systematic point of view, each normative T_0 -level formulation has an intrinsic relation to others at the same level in the negative sense that it is not synonymous with an absolutist norm " T_0 !—at any cost, regardless of any other norm of the total systematizations!"

It is beyond anyone's capacity to be competent in formulating complete subguidelines of decentralization with a great field of application such as the one just mentioned. Needless to say, it is a task for hundreds, if not for thousands, to hammer out policy guidelines and more precise formulations covering large geographic or administrative areas within the borders of a state like Norway.

It should be, but unhappily is not, unnecessary to add that the *docta ignorantia* theme applies strongly to the ecophilosophers. In Europe, what is sometimes called political ecology is heavily criticized. "The social and political thinking of the ecologists is marred by blindness and naïveté," wrote the left-wing author Hans Magnus Enzenberger (1973), and a continuous stream of criticism, moral indignation, and ridicule has been directed at ecologists who propose formidable changes of society without any deep knowledge about history and social forces, local or global. Despite his criticisms, Enzenberger does express the belief that a strong movement is

needed to “restore the North American continent and to *de-develop the United States*.”

Some criticism has also been directed at “the main writers who have been devoted to elaborating the ideas of deep ecology and defending them over the last few years” (Fox 1990: 70). Warwick Fox lists six main writers but, as he himself emphasizes, there are many more who announce very general points of view using deep ecology terminology. There is good reason to believe that this will continue in the 1990s, much of it being constructive and eagerly studied by all concerned. Here I shall only emphasize that *docta ignorantia* implies for theorists of the deep ecology movement occasional but not unnecessarily repetitive admissions of ignorance and incompetence relative to certain social problems and practical tasks. Perhaps the frequency and intensity of such admissions have been too small.

Point 3 of the Eight Points says something of gigantic scope seen from the point of view of any student of human societies: that human beings have no right to decrease the richness and diversity of (human and) nonhuman forms of life except to satisfy vital needs.

The vast philosophical literature and quarrels on rights are presumably more or less unknown and will presumably remain unknown to most of these theoreticians, because it takes much time to acquaint oneself with them. The literature on needs and criticisms by social psychologists and others is very difficult to survey. Nevertheless, the “social indicators” research is certainly relevant.

It staggers the imagination to think of the millions of questions involved in *any* large-scale undertaking to halt or reverse the trend toward decreased richness of nonhuman life-forms as the term *richness* is supposed to be interpreted here: the rich diversity locally all over the globe, not just populations big enough to avoid threats of extinction and geographically severely limited habitats.

When we move to point 6, the ignorance and incompetence of the deep ecology movement theories may be said to be, if possible, even more staggering—relative to the tasks implied.

Critics say that it sometimes sounds as if the theorists believe they have clear awareness of what it takes to realize the norms of the deep ecology movement and, even worse, that to go on talking in very general, vague terms is the main job in solving the ecological crisis. Why, the critics won-

der, do not they take up specific, practical problems when clearly what they announce implies such tasks?

From what I have seen of these theorists, including myself, I think the criticism is largely but not wholly misdirected. Admissions of ignorance or incompetence relative to certain tasks may occur too rarely, but it is, as far as I can judge, not tenable to assert that they overestimate their knowledge, competence, or capacities.

As for practical problems, one may expect that the theorists' general outlook colors their lifestyle and their interactions in their local communities. It is no basis for general complaints. The consistency of ecological responsibility is often discussed. It is clear that the ethical and general norms of consistency are a large area of ethical and practical thinking. Here a norm against undue moralizing is relevant. The pronouncement of an American Indian is often quoted: "Great Spirit, grant that I may not criticize my neighbor until I have walked a mile in his moccasins."

So much about the tasks the theoreticians of the deep ecology movement cannot perform. What *can* they do? There are three kinds of tasks that they perform and will continue, I hope, to perform in the 1990s: the verbal articulation of *intuition*; the *synthesis* of the intuitions with general insights, ecological knowledge, and informed guesses about the future; and logical, semantical, and general analytical work to bring the synthesis into a rational form (different both from the important poetic form and from the socially necessary form of preaching).

An example may be useful here. I have articulated one of my intuitions with the help of old philosophy—using the six words "All living beings are ultimately one." Sir Alfred Ayer was highly dissatisfied with this formulation (Elders 1974: 31 ff.), but I could not help much in finding a more precise sentence to express the same intuition. As a theorist I should either find such a sentence or find a way to convey some of its meaning through sets of sentences independent of the six-word articulation. That is done through my talk about the process of identification and self-realization. The theoreticians of the *deep* movement naturally use philosophical and religious traditions, or rather feel at home or belong within such a tradition.

The three tasks are important because people, including scientists and technicians, are not generally trained in a combination of those tasks. After a lecture or speech in which I present some of the theoretical articulations,

people often react by saying, "That's exactly what I have felt for many years but did not find ways to express!" Essentially nothing new was being conveyed, but people were made more conscious of their basic attitudes. They have become better equipped to take an active, self-confident part in the conflicts of their day. They joyfully communicate to others how they feel about society, about nature, about everything fundamental in their lives in terms of their intuitions and insights.

In professional philosophy the theorists may contribute within the venerable traditions of philosophy of nature (*Naturphilosophie*) and otherwise.

In short, there are great tasks to be performed, but they are severely limited and can only bring about social and political changes when performed in close cooperation with theorists, students, and participants in social and political life.

We must not underestimate the importance of appealing to people, whatever their level of formal education, to express what they think of the proposed more or less general guidelines, whether relevant or not at their own workplace, in their own community, and in their own political activity, if they are so inclined. There is no reason whatsoever for the theorist to feel that the theoretical reflections, including the historical, can somehow do the jobs that give practical meaning to the generalizations. The theorist invites cooperation in the many cases in which people respond positively, and he modifies his own message in the light of the experience of others.

There is nothing new in this. The great social movements of today depend upon grassroots participation, and the ecology movement more than any other.

Integration of the “Eight Points” into Ecosophy T

Ecosophy T can be integrated with the Eight Points of the deep ecology platform in several ways. One of the simplest, but also crudest, is to extend the upper levels of the Ecosophy T diagram (see figure 1, page 53).

Starting from the left, the extensions may be diagrammatically suggested as shown in figure 9.

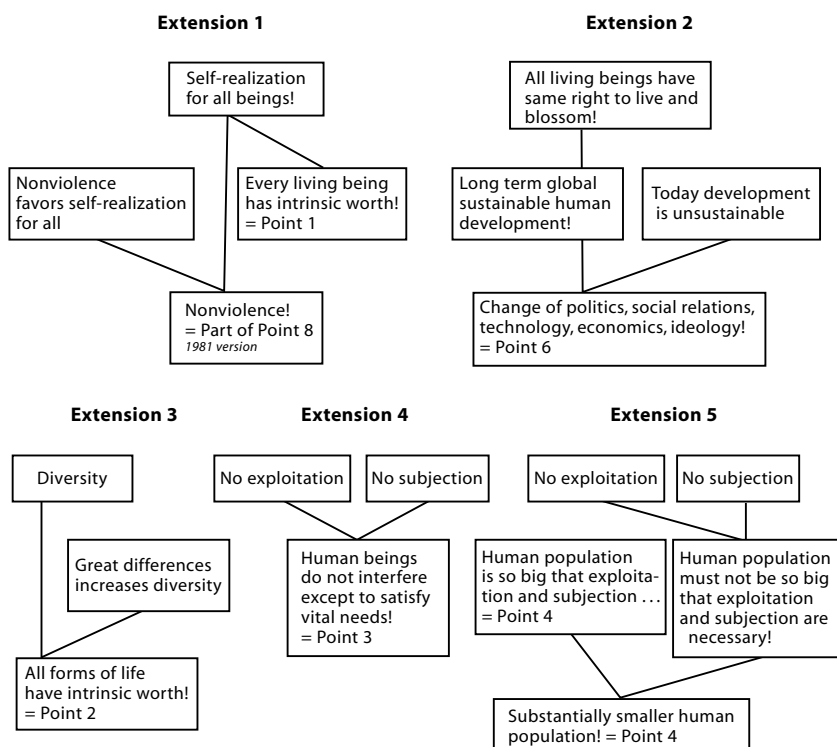


Figure 9. Integration of the Eight Points into Ecosophy T.

This article was written in 1989. It is being published here for the first time.

Metaphysics of the Treeline

In many parts of the world, but perhaps most clearly in the far north, the treeline is full of symbolic value: enigmatic, mystical, threatening, liberating, alluring—and repulsive and ominous. No single person or animal has the capacity to experience all these tertiary qualities of the treeline. The same holds true for the drama of crossing the treeline, either from above or from below.

The term *treeline* is misleading. There is actually no line but rather a narrow or wide border area. If the terrain is nearly horizontal, the area is wide—perhaps miles wide. If the terrain is steep, the line is narrow but never sharp. Thus it is a shock to see an artificial forest, actually a “tree farm,” covering a slope high on the side of a valley and then suddenly coming to a halt.

Suddenly, there is not a single tree! From full-grown trees to nothing: an abnormality, an experience of something utterly valuable having been destroyed, the landscape desecrated, a personal loss even if one has never been near the place.

Here I shall relate the immensely rich reality that a certain group of people has experienced, a group that includes millions of people. I shall start with the simple, obvious experiences.

As one moves up toward the treeline, there are signs of new challenges being met by the trees. In the strong winds and thinning soil, trees become smaller and take on gnarled and fantastic shapes. Some have fallen over. They tend to clump together, as we would do. Sometime there are only clus-

This article was reprinted with permission. It was originally published in *Appalachia* (June 15, 1989): 56–59, and in *Edge* 2 (1989): 25–26. It was also published in *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions (Boston: Shambhala Publications, Inc., 1995), 246–48.

THEORETICAL DIMENSIONS OF DEEP ECOLOGY

ters of trees at particular spots, or single trees that are altogether isolated. They may be courageous, haughty, even triumphant, but also miserable.

These characteristics of trees, however, are subordinate gestalts, lesser forms of what is real. The higher-order gestalts predominate. One gestalt is that of upward movement, as far as possible, overcoming obstacles, trying to "clothe the mountain."

Some trees succeed in clothing the mountain. Compared with lowland trees, they resemble tiny bushes. They may be only a few feet tall, whereas their lowland kin soar 50 to 100 feet or more. Yet call them stunted and they ask, What am I lacking? These trees have produced cones. They've realized all their possibilities; they've fulfilled essential functions. Mere size has nothing to do with the quality of life.

Others merely survive, stunted and deformed. No cones, no expression of fulfillment, half-dead from exposure to winter after winter, and summers that alternate from drenching rain to dry.

Each tree has a different life experience from birth. Still others thrive in small ways by managing merely to survive. The rough terrain and numerous variations in conditions have obvious consequences—no tree is identical to any other. Each tree is a mighty presentation of the drama of life. To some you feel near, others you feel farther from.

A few people have the background to enlarge the high-order gestalts in the time dimension. These people will see the waves of cold and warm climates after the last ice age. They see waves of trees further clothing the mountain, or in retreat, leaving broken trunks clinging high on the open slopes. The treeline is seen as constantly moving up or down, never resting.

People living near thick spruce forests may see the forest density as a protective wall. Others feel that these trees block the view, or even one's existence, hindering free expression of life and thought. If the trees are old with drooping branches, they may communicate resignation, sorrow, melancholy. Swayed by the wind, large trees move in slow rhythms, and the music can have the heartbreaking feel of a funeral march. Or they may express slowly something like "doomed, doomed, doomed . . ." Through the dimness of night, the wall of trees may invite merciful death. The existence of the treeline somewhere high—reachable, but far away—then inevitably becomes a promise of freedom, a proof of limits to any sorrow, any prison, any doubt or guilt. As one approaches the treeline, walls disappear. Trees

shrink, gaps enlarge, light shines between them and between their branches. It has been my privilege to see all this.

When rich, high-order gestalts contrast low and high, dark and light, they are apt to acquire metaphysical dimensions. Movement from low and dark toward high and light treeline strengthens this contrast. Lightness is further strengthened by the ease of movement at treeline. Being at treeline becomes an experience of reaching supreme freedom. For some, a change from a tragic to a more cheerful outlook on life occurs.

Those who live in the forest, or feel at home there, may have experiences that vary even more. The upper limit of the forest marks the end of security, the end of the world we master, the beginning of the harsh world of wind-driven snow, dangerous precipices, useless expanse.

Above treeline it is cold and hostile; below is warm and friendly. Even in these negative experiences there is a contrast of metaphysical dimensions. The positive and negative gestalts attest to the supreme gestalt of Janus-faced existence, comprising good and bad on an equal footing, or emphasizing one aspect more than the other.

How is this metaphysical aspect to be understood? What insight can it offer? This is a meta-metaphysical question that cannot be entirely answered here, or anywhere, although certain essentials can be gleaned from three approaches.

1. *The Homocentrist.* The power of human imagination is overwhelming. There is no limit to what human genius is able to *project into* nature. The richness of treeline symbols attests to this. Flights of imagination soar from the plane of brute facts: the leaves are green, stems grow upward. . . . The rest is a wonderful projection of the human mind.
2. *The Idealist Philosopher.* Strictly speaking, the leaves are not green. Their atoms are colorless, not even gray, and the stems' electromagnetic waves or particles do not grow upward. There is a realm beyond the material world. The new physics confirms it—a spirit world beyond space and time, a spiritual realm. The human mind is in direct touch with this realm and “spiritualizes” nature.
3. *The Ecosopher.* The richness and fecundity of reality! How overwhelming! The treeline's abstract geographical structure points to a

THEORETICAL DIMENSIONS OF DEEP ECOLOGY

seemingly infinite variety of *concrete* contents! More is open to the human ecological self than can be experienced by any other living being.

The metaphysics of the treeline is a serious affair for ecosophers. It lets us understand the spontaneous immediate experience of the treeline as an experience of reality, beyond the divisions between subject and object, between spiritual and material.

One of today's most chilling realizations is that "reforestation" projects do not really restore a *forest*. Artificial tree plantations lack the immense biological richness and diversity of ancient forests, together with their metaphysical intensity and richness. With so many people now reacting negatively to sham reforestation, the time is ripe for a change in policy.

Ranking, Yes, but the Inherent Value Is the Same: An Answer to William C. French

In the Spring 1995 issue of *Environmental Ethics*, William C. French published an excellent article called “Against biospherical egalitarianism.” After noting that “Arne Naess and Paul Taylor are two of the most forceful proponents” of such egalitarianism, French asks for a moderation:

[T]he expansion of what counts as the moral community far beyond the borders of the human community is, I believe, correct. What I find problematic, however, is the egalitarian view that not only do all living entities have inherent moral value, but that they all have *equal* inherent value.

(French 1995: 39)

It is unfortunate that I waited until the 1990s to change “equal” into “the same,” avoiding as well as I could the question of grading. My position may be formulated as follows: “Living beings have in common a same sort of value, namely inherent value.” It makes sense to do something strictly for their own sake. I do not like the grading of this value, but some supporters of the deep ecology movement introduce grading and I see no reason to try to make them feel as I do about this. The deep ecology movement is not a sect.

Very few supporters use the term *biospherical egalitarianism*, and this is good because it is natural to interpret the word *egalitarianism* in an absolutist sense, as absolute equality or value in every respect, a sense that I never had in mind and one that must make everybody inconsistent sinners.

A slightly different version of this article appears in *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy*, edited by N. Witoszek and A. Brennan (Lanham, MD: Rowman and Littlefield, 1999), 146–49.

The sense I tried to give the expression refers to points 1 and 2 of the Eight Points. It relates to the (for me) fundamental question “Inherent or *merely* instrumental value?” Inherence does not (logically) imply absence of ranking, for example, species ranking of various sorts. I use a kind of ranking with a level of consistency compatible with a moderate (ethical) latitudinarian attitude as opposed to a rigorist one. (These terms I borrow from the history of theology.) In short, I do not know of any very helpful general ranking, but the ecologist Ivar Mysterud and I have tried to systematize norms of ranking that are highly controversial but of vital concern for the continued existence of certain communities: the “mixed” communities of sheep, sheep owners, bears, and wolves (Naess and Mysterud 1987 [chapter 29 in this volume]) in Norway. The small-scale sheep owners are at the same time agriculturists, foresters, hunters, and gatherers—ecological aristocrats!

To systematize a set of prescriptions and descriptions closely adapted to the situation in these areas of Norway is a herculean task. The contribution worked out together with Mysterud (who has spent more than ten years on the relevant questions) stresses, among other things, the special *responsibility* of sheep owners in relation to *their* sheep (ibid.). When Norway was poor, the owners nevertheless hired shepherds; now that Norway is rich, it costs too much for sheep owners to hire shepherds. My proposal is that for the next ten years the district authorities and the sheep owners pay for shepherds. It is a clear obligation to protect our sheep against wolves. Within ten years Norway is likely to be part of a gigantic free market (the European Union), and the culturally small but ecologically high-level communities will scarcely be able to compete. There may be no small-scale sheep owners left. The point I am trying to make here is that it is necessary to refer to the complexity and the local character of the problems involved, such as when saying yes to sheep and to wolves and bears.

Ranking is a complex affair. How do I, for example, rank insects? Should they all have the same rank? Where I have lived for many years, the climate is so tough that some species appear there only because the wind has carried them upward too high for them to live more than a short time. It feels natural for me to take special care of certain species of butterflies. I see them on the snow patches more or less weakened. My attempts to revive them, using my own methods, are successful in less than 50 percent of the cases. Although I feel that I ought to make these efforts, I do not find that I

(ethically speaking) *ought to* use more refined, time-consuming methods. Ranking is not wholly an ethical affair.

Specimens of other families of insects do not receive careful treatment; they are mostly ignored. In some cases, I find my behavior ethically not quite as it should be; in other cases, despite the obvious practical possibility of being helpful, I do nothing. I let them slowly die on the snow. I use the term *feel* extensively in discussing these matters because the ethical analysis of the many situations would be much too complex for me to handle if I referred only to thinking.

Those who find they are able to introduce a sophisticated grading of inherent value perhaps use the term as a technical expression capable of being made fairly precise. As I define it, it is the expression of something largely intuitive. The moment I perceive something as alive, it is apperceived as something with a *kind of* value or standing that I myself have. Ranking does not quite have the same sort of intuitive evidence because it has to do with an act of comparing. Ranking for me has primarily to do with differences of obligation. In wintertime my cottage receives mice and men as guests, but my obligations are enormously greater toward the human guests than toward the mice. The latter are absolutely forbidden to enter more than one outer room, but considering the terrific climate, their braveness calls for *some* recognition. They are acceptable in one of the rooms. It *feels absurd* for me to think, You are mere mice, I have higher inherent value because (1) I am much more intelligent, (2) I am much more complex, (3) I am much higher on the evolutionary ladder, (4) I am capable of profound sorts of spiritual suffering, (5) I am self-reflecting, you do not even know yourself, and (6). . . .

I cannot see that the principle of sameness of inherent value of all living beings makes it difficult to introduce a rank consideration in mixed communities. The members of the communities feel obligations of various kinds and intensities, but it is hazardous to integrate them into a system with a set of basic norms, and more so to extend the intended field of validity in favor of a global environmental ethics. A sheep owner cried out to his children "Come and look out the window!" A big brown bear was coming straight up to the farm, but the sheep were out of reach of the bear. Marvelous sight! Full respect for the bear—its inherent value, its right to eat the sheep, but also the right of the sheep owner to chase the bear away if it,

against expectation, tried to break down the door protecting the sheep. He furthermore accepted fully the rule that he was not supposed to kill the bear if he met it in the woods, except when it attacked. Extremely complex moral and nonmoral questions for people whom it concerns!

French writes, "My view is that without some notion of species ranking—critically formulated and compassionately and contextually applied—it may well be impossible to provide the moral justification that Naess admits his position seems to lack" (French 1995: 45). This is very well formulated and I *completely* agree. Ranking, though, does not *imply* quantification of inherent value.

Suppose French proposes a definite ranking system and applies it compassionately and contextually. Has he given me and the sheep owners a moral basis? A fundament? I do not know. A system may seem to be too much to ask for as an ultimate basis.

French finds Lawrence Johnson's species-ranking scheme helpful: "[A] human by virtue of his or her greater 'complexity' than a dandelion has a 'greater interest in life and a higher moral status' (ibid., p. 54). French uses "range of vulnerability and need" (ibid., p. 55) as a basic criterion: "[O]ur moral priority lies to defend those [species] who have the greatest range of potential vulnerability," as "generated by broader ranges of complexity and capacities" (ibid., p. 56).

French's proposal, I feel, is very considerate. Even the tremendous expansion, domination, and vitality of the human species is, I grant, not a sign that it is *not* the most vulnerable. If I act according to his ranking, though, I am not sure it furnishes me with a general moral *basis*. I shall be on the outlook for something that to me is more intuitively convincing, and perhaps I am not sure how important morally it is in practice to find a *general* ranking scheme.

Self-Realization: An Ecological Approach to Being in the World

Humanity has struggled, for about twenty-five hundred years, with basic questions about who we are, where we are headed, and the nature of the reality in which we are included. This is a short period in the lifetime of a species, and an even shorter time in the history of the Earth, to which we belong as mobile beings. I am not capable of saying very new things in answer to these questions, but I can look at them from a *somewhat* different angle, using somewhat different conceptual tools and images.

What I am going to say, more or less in my own way and in that of my friends, can be condensed roughly into six points:

1. We underestimate our self, and I emphasize *self*. We tend to confuse our self with the narrow ego.
2. Human nature is such that, with sufficient comprehensive (all-sided) maturity, we cannot help but “identify” our self with all living beings: beautiful or ugly, big or small, scientific or not.

The adjective *comprehensive* (“all-sided”) as in “comprehensive maturity” deserves a note: Descartes seemed to be rather immature in his relationship with animals; Schopenhauer was not very advanced in his relationship to his family (kicking his mother down a staircase?); Heidegger was amateurish—to say the least—in his po-

This essay was originally given as a lecture on March 12, 1986, at Murdoch University, Western Australia, sponsored by the Keith Roby Memorial Trust. Reprinted with permission from *Thinking Like a Mountain: Towards a Council of All Beings*, edited by John Seed, Joanna Macy, Pat Fleming, and Arne Naess (Canada: New Society Publishers, 1988), and from *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions (Boston: Shambhala Publications, Inc., 1995), 225–39. It was also published in *The Trumpeter: Journal of Ecosophy* 4 (1987): 35–42.

litical behavior. Weak identification with nonhuman life-forms is compatible with maturity in some major sets of relationships, such as those toward one's family or friends. Therefore, I use the qualification *comprehensive* to mean "being mature in *all* major relationships."

3. Traditionally, the *maturity of the self* has been considered to develop through three stages: from ego to social self (including the ego), and from social self to a metaphysical self (including the social self). In this conception of the maturity of the self, Nature is largely left out. Our immediate environment, our home (where we belong as children), and the identification with nonhuman living beings are largely ignored. Therefore, I tentatively introduce, perhaps for the very first time, the concept of *ecological self*. We may be said to be in, and of, Nature from the very beginning of our selves. Society and human relationships are important, but our self is much richer in its constitutive relationships. These relationships are not just those we have with other people and the human community. (I have elsewhere introduced the term *mixed community* to mean those communities in which we consciously and deliberately live closely with certain animals.)
4. The meaning of life, and the joy we experience in living, is increased through increased self-realization; that is, through the fulfillment of potentials that each of us has but that are never exactly the same for any two living beings. Whatever the differences between beings, increased self-realization nevertheless implies a broadening and deepening of the self.
5. Because of an inescapable process of identification with others, with increasing maturity the self is widened and deepened. We "see ourselves in others." Our self-realization is hindered if the self-realization of others, with whom we identify, is hindered. Our love of our self will fight this hindering process by assisting in the self-realization of others according to the formula "Live and let live!" Thus, everything that can be achieved by altruism—the *dutiful*, *moral* consideration for others—can be achieved, and much more, by the process of widening and deepening our selves. Following Kant, we then act *beautifully*, but neither morally nor immorally.
6. One of the great challenges today is to save the planet from further ecological devastation, which violates the enlightened self-interest

of both human and nonhuman life and decreases the potential of joyful existence for all.

Now, proceeding to elaborate these points, I shall start with the peculiar and fascinating terms *ego* and *self*.

The simplest answer to the question of who or what I am is to point to my body. Clearly, though, I cannot identify my self, or even my ego, with my body. For example, compare:

I know Mr. Smith.	My body knows Mr. Smith.
I like poetry.	My body likes poetry.
The only difference	The only difference between
between us is that	our bodies is that your body
you are a Presbyterian	is Presbyterian whereas
and I am a Baptist.	mine is Baptist.

In the above sentences, we cannot substitute “my body” for “I.” Nor can we substitute “my mind” or “my mind and my body” for “I.” More adequately, we may substitute “I as a person” for “I,” but this does not, of course, tell us what the ego or the self is.

Several thousand years of philosophical, psychological, and social-psychological thinking has not brought us any adequate conception of the “I,” the “ego,” or the “self.” In modern psychotherapy these notions play an indispensable role, but, of course, the practical goal of therapy does not necessitate philosophical clarification of these terms. It is important to remind ourselves about the strange and marvelous phenomena with which we are dealing. Perhaps the extreme closeness and nearness of these objects of thought and reflection add to our difficulties. I shall offer only a single sentence that resembles a definition of the “ecological self.” The ecological self is a person’s “process of identification.”

I shall continue to concentrate on the “ecology of the self” but will first say some things about identification.

What would be a paradigm situation involving identification? It would be a situation that elicits intense empathy. My standard example involves a nonhuman being I met forty years ago. I was looking through an

old-fashioned microscope at the dramatic meeting of two drops of different chemicals. At that moment, a flea jumped from a lemming that was strolling along the table and landed in the middle of the acid chemicals. To save it was impossible. It took many minutes for the flea to die. Its movements were dreadfully expressive. Naturally, what I felt was a painful sense of compassion and empathy, but the empathy was *not* basic; rather, it was a process of identification: that "I saw myself in the flea." If I had been *alienated* from the flea, not seeing intuitively anything even resembling myself, the death struggle would have left me feeling indifferent. So there must be identification in order for there to be compassion and, among human beings, solidarity.

One of the authors contributing admirably to a clarification of the study of the self is Erich Fromm. He writes:

The doctrine that love for oneself is identical with "selfishness" and an alternative to love for others has pervaded theology, philosophy, and popular thought; the same doctrine has been rationalized in scientific language in Freud's theory of narcissism. Freud's concept presupposes a fixed amount of libido. In the infant, all of the libido has the child's own person as its objective, the stage of "primary narcissism," as Freud calls it. During the individual's development, the libido is shifted from one's own person toward other objects. If a person is blocked in his "object-relationships," the libido is withdrawn from the objects and returned to his or her own person; this is called "secondary narcissism." According to Freud, the more love I turn toward the outside world the less love is left for myself, and vice versa. He thus describes the phenomenon of love as an impoverishment of one's self-love because all libido is turned to an object outside oneself.

(Fromm 1956: 58)

What Fromm attributes here to Freud we can now attribute to the shrinkage of self-perception implied in the fascination for ego trips. Fromm opposes such a shrinkage of self. The following quotation from Fromm concerns love of persons but, as "ecosophers," we find the notions of care, respect, responsibility, and knowledge applicable to living beings in the wide sense.

The nature of unselfishness becomes particularly apparent in its effect on others and most frequently, in our culture, in the effect the "unselfish" mother

has on her children. She believes that by her unselfishness her children will experience what it means to be loved and to learn, in turn, what it means to love. The effect of her unselfishness, however, does not at all correspond to her expectations. The children do not show the happiness of persons who are convinced that they are loved; they are anxious, tense, afraid of the mother's disapproval, and anxious to live up to her expectations. Usually, they are affected by their mother's hidden hostility against life, which they sense rather than recognize, and eventually become imbued with it themselves. . . .

If one has a chance to study the effect of a mother with genuine self-love, one can see that there is nothing more conducive to giving a child the experience of what love, joy, and happiness are than being loved by a mother who loves herself.

(Ibid., pp. 59, 62)

We need environmental ethics, but when people feel that they unselfishly give up, or even sacrifice, their self-interests to show love for nature, this is probably, in the long run, a treacherous basis for conservation. Through identification, they may come to see that their own interests are served by conservation, through genuine self-love, the love of a widened and deepened self.

At this point, the notion of a being's interests furnishes a bridge from self-love to self-realization. It should not surprise us that Fromm, influenced as he is by Spinoza and William James, makes use of that bridge. "What is considered to constitute self-interest?" Fromm asks. His answer:

There are two fundamentally different approaches to this problem. One is the objectivistic approach most clearly formulated by Spinoza. To him self-interest or the interest "to seek one's profit" is identical with virtue.

"The more," he says, "each person strives and is able to seek his profit, that is to say, to preserve his being, the more virtue does he possess; on the other hand, in so far as each person neglects his own profit he is impotent." According to this view, the interest of humans is to preserve their existence, which is the same as realizing their inherent potentialities. This concept of self-interest is objectivist inasmuch as "interest" is not conceived in terms of the subjective feeling of what one's interest is but in terms of what the nature of a human is, "objectively."

(Ibid., p. 63)

"Realizing inherent potentialities" is one of the good, less-than-ten-word clarifications of "self-realization." The question "What are the inher-

ent potentialities of the beings of this specimen *X* of the species *Y*?" obviously leads to reflections about, and studies of, *X* and *Y*.

As human beings we cannot just follow the impulses of the moment when asking what our inherent potentialities are. It is something like this that Fromm means when he calls an approach "objectivistic" as opposed to an approach "in terms of subjective feeling." Because of the high estimation of feeling and a correspondingly low estimate of so-called objectivization (*Verdinglichung*, reification) within deep ecology, Fromm's terminology is not adequate today, but what he means to say is appropriate. Moreover, it is obviously relevant when we deal with species other than our own: animals and plants have interests in the sense of ways of realizing inherent potentialities, interests that we can study only by interacting with them. We cannot rely on our monetary impulses, however important they are in general.

The expression "preserve his being," in the quotation from Spinoza, is better than "preserve his existence," since the latter is often associated with physical survival and a "struggle for survival." An even better translation, perhaps, is "persevere in his being" (*perseverare in suo esse*). This has to do with acting from one's own nature. Survival is only a necessary condition, not a sufficient condition of self-realization.

The concept of self-realization as dependent on insight into our own potentialities makes it easy to see the possibilities of ignorance and misunderstanding in terms of what these potentialities are. The "ego-trip" interpretation of the potentialities of human beings presupposes a major underestimation of the richness and broadness of our potentialities. As Fromm puts it, "man can deceive himself about his real self-interest if he is ignorant of his self and his real needs" (Fromm 1956: 63).

The "Everything hangs together" (or "Everything is interrelated") maxim of ecology applies to the self and its relation to other living beings, ecosystems, the ecosphere, and the Earth itself, with its long history.

The existence and importance of the "ecological self" are easy to illustrate with some examples of what has happened in my own country, Norway.

Scattered human habitation along the arctic coast of Norway is uneconomical and unprofitable from the point of view of the current economic policy of our welfare state. Welfare norms require that every family should be connected by telephone (in case of illness); this costs a considerable

amount of money. The same holds for the mail and other services. Further, local fisheries are largely uneconomical, perhaps because a foreign armada of big trawlers of immense capacity is fishing just outside the fjords. As a result, the availability of jobs is crumbling.

Therefore, the government heavily subsidized the resettlement of people from the arctic wilderness, concentrating them in so-called centers of development (small areas with a town at the center). The people, as persons, are clearly not the same now that their bodies have been thus transported. Their social, economic, *and natural setting* is now vastly different. The objects with which they work and live are completely different. There is a consequent loss of personal identity. They now ask, Who am I? Their self-respect and self-esteem have been impaired. What is adequate in the so-called periphery of the country is different from what is important in the so-called centers.

If people are relocated or, rather, transplanted from a steep mountainous place to the plains below, they also realize (but too late) that their home-place was a part of themselves and that they *identified* with features of that place. The way of life in the tiny locality, with the intensity of social relations there, has formed their personhood. Again, they are now not the same as they were.

Tragic cases of this can be seen in other parts of the Arctic. We all regret the fate of the Eskimos: their difficulty in finding a *new identity*, a new social self, and a new, more comprehensive ecological self. In addition, the Lapps of arctic Norway have been hurt by interference with a river for the purpose of developing hydroelectricity. Accused of an illegal demonstration at the river, one Lapp said in court that the part of the river in question was "part of myself." This kind of spontaneous answer is not uncommon among people. They have not heard about the philosophy of the wider and deeper self, but they talk spontaneously as if they had.

We may try to make the sentence "This place is part of myself" intellectually more understandable by reformulations—for example, "My relation to this place is part of myself"; "If this place is destroyed something in me is destroyed"; "My relation to this place is such that if the place is changed, I am changed."

One drawback of these reformulations is that they make it easy to con-

tinue thinking of two completely separable, real entities: a self and the place, joined by an *external* relation. The original sentence rather conveys the impression that there is an *internal* relation of sorts. I say "of sorts" because we must take into account that the relation may not be reciprocal. If I am changed, or even destroyed, the place would be destroyed, according to one usual interpretation of "internal relation." From the standpoint of phenomenology and the "concrete contents" view, the reciprocity holds, but that is a special interpretation. We may use an interpretation such that if we are changed, the river need not be changed.

The newborn, of course, lacks any conceptions, however rudimentary, corresponding to the tripartition subject, object, and medium. Probably the conception (not the concept) of one's own ego comes rather late, say after the first year. First, there is a vague net of relations. This network of perceived and conceived relations is neutral, similar to what in British philosophy was called neutral monism. In a sense, we are trying to work out this basic sort of crude monism anew, not by trying to become babies again, but by better understanding our ecological selves. This understanding has not had favorable conditions for development; we have glorified our ego by placing it in opposition to the rest of reality since before the Renaissance.

What is the practical importance of this conception of a wide and deep ecological self? When we attempt to defend Nature in our rich industrial societies, the argument of our opponents is often that we are doing it to secure beauty, recreation, and other nonvital interests for ourselves. Our position is strengthened if, after honest reflection, we find that the destruction of Nature (and our place) threatens us in our innermost self. If so, we are more convincingly defending our vital interests, not merely something "out there." We are engaged in self-defense. To defend fundamental *human* rights is vital self-defense.

The best introduction to the psychology of the self is still to be found in William James's excellent and superbly readable *Principles of Psychology* (1890). His 100-page chapter on the consciousness of self stresses the plurality of components of the wide and deep self as a complex entity. (Unfortunately, he prefers to talk about a plurality of selves. I think it may be better to talk about the plurality of the components of the wide self.)

If we say about somebody that he is not himself today, we may refer to

a great many different *relations* to other people, to material things, and certainly, I maintain, to what we call his environment: the home, the garden, the neighborhood, and so on.

When James says that these *relata belong* to the self, of course it is not in the sense that the self has eaten the home, the environment, etc. Such an interpretation would mean that the self is still identified with the body. Nor does it mean that an *image* of the house *inside* the consciousness of the person belongs to the self. When somebody says about a part of a river-landscape that it is part of himself, we intuitively grasp roughly what he means, but it is difficult, of course, to elucidate this meaning in philosophical or psychological terminology.

A last example from William James: we understand what is meant when someone says “As a man I pity you, but as an official I must show you no mercy.” Obviously the self of an official cannot empirically be defined except as relationships in a complex social setting. Thus, the self cannot possibly be inside the body, or inside a consciousness.

Enough! The main point is that we do not hesitate *today*, being inspired by ecology and a revived intimate relationship to Nature, to recognize and accept wholeheartedly our ecological self.

The next section is rather metaphysical. I do not *defend* all the views presented here; rather, I primarily wish to inform you about them. As a student and admirer of Gandhi’s nonviolent direct actions in bloody conflicts since 1930, I am inevitably influenced by his metaphysics, which personally furnished him with tremendously powerful motivation and contributed to keeping him going until his death. His ultimate aim was not India’s *political* liberation. He, of course, led a crusade against extreme poverty, caste suppression, and terror in the name of religion. This crusade was necessary, but the liberation of the individual human being was his supreme aim. It is strange for many to hear what he himself said about his ultimate goal:

What I want to achieve—what I have been striving and pining to achieve these thirty years—is self-realization, to see God face to face, to attain *Moksha* (Liberation). I live and move and have my being in pursuit of that goal. All that I do by way of speaking and writing, and all my ventures in the political field, are directed to this same end.¹

This sounds individualistic to the Western mind—a common misunderstanding. If the self about which Gandhi speaks were the ego or “narrow” self (*jīva*) of egocentric interest (“ego trips”), why then would he have worked for the poor? For him, it was the supreme or universal Self—the *ātman*—that was to be realized. Paradoxically, it seems, he tried to reach self-realization through “selfless action”; that is, through a diminishment of the dominance of the narrow self or ego. Through the wider Self every living being is intimately connected, and from this intimacy follows the capacity of *identification* and, as a natural consequence, the practice of nonviolence. No moralizing is needed, just as we do not need morals to make us breathe. Rather, we need to cultivate our insight: “The rock bottom foundation of the technique for achieving the power of non-violence is belief in the essential oneness of all life.”

Historically, we have seen that Nature conservation is nonviolent at its very core. Gandhi says:

I believe in *advaita* (nonduality). I believe in the essential unity of man and, for that matter, all that lives. Therefore I believe that if one man gains spirituality, the whole world gains with him and, if one man fails, the whole world fails to that extent.

Surprisingly enough, Gandhi was extreme in his personal concern for the self-realization of nonhuman living beings. When traveling, he took a goat along to satisfy his need for milk. This was part of a nonviolent demonstration against certain cruel Hindu ways of milking cows. Some European companions who lived with Gandhi in his ashrams were taken aback that he let snakes, scorpions, and spiders move unhindered into their bedrooms—as animals fulfilling their lives. He even prohibited people from keeping a stock of medicines against poisonous bites. He believed in the possibility of satisfactory coexistence and he was proved right. There were no accidents. Ashram people would naturally look into their shoes for scorpions before using them. Even when moving over the floor in darkness, one could easily avoid trampling on one’s fellow beings. Thus, Gandhi recognized a basic common right to live and blossom, to self-realization in a wide sense applicable to any being that can be said to have interests or needs. Gandhi made manifest the internal relationship between self-realization, nonviolence, and what has sometimes been called biospherical egalitarianism.

In the environment in which I grew up, I heard that what is important in life is to get *to be* someone—to outdo others in something, to be victorious in comparing one’s abilities with those of others. The ability to cooperate, to work with people, to make them feel good, of course, “pays” in a fiercely individualistic society, and high positions may require that—but only to the extent to which they are ultimately subordinated to one’s career, to the basic norms of the ego trip, not to a self-realization worthy of the name. To identify self-realization with ego trips manifests a vast underestimation of the human self.

According to the usual translation of Pali or Sanskrit, Buddha taught his disciples that the human mind should embrace all living things as a mother cares for her son, her only son. Some who would never feel it to be meaningful or possible that a human *self* could embrace all living things, might stick to the usual translation. We shall then ask only that your *mind* embrace all living beings, together with your good intentions to care, feel, and act with compassion.

If the Sanskrit word translated into English is *ātman*, it is instructive to note that this term has the basic meaning of “self,” rather than “mind” or “spirit” as one usually sees in the translations. The superiority of the translation using the word *self* stems from the consideration that *if* your self (in the wide sense) embraces another being, you need no moral exhortation to show care. Surely you care for yourself without feeling any moral pressure to do it—provided you have not succumbed to a neurosis of some kind, developed self-destructive tendencies, or hate yourself.

Incidentally, the Australian deep ecology supporter and ecofeminist Patsy Hallen (1987) uses a formula close to that of Buddha’s: we are here to embrace rather than conquer the world. It is of interest to notice that the term *world* is being used here rather than *living beings*. I suspect that our thinking need not proceed from the notion of living being to that of the world, but we will conceive reality, or the world we live in, as alive in a wide, not easily defined, sense. There will then be no nonliving beings to care for.

If “self-realization” (or “self-fulfillment”) is habitually associated today with lifelong ego trips, then is it not stupid to use this term for self-realization in Gandhi’s widely different sense or (in a less religiously loaded context) as a

term for widening and deepening the “self” so that it embraces all life-forms? Perhaps it is. On the other hand, the very popularity of the term makes people feel safe, and they listen for a moment. In that moment, the notion of a greater “self” should be introduced, and it should be pointed out that if they equate self-realization with ego trips, then they seriously *underestimate* themselves. “You are much greater, deeper, generous, and capable of more dignity and joy than you think! A wealth of noncompetitive joys is open to you!”

I have still another important reason for inviting people to think in terms of deepening and widening their selves, *starting* with the ego trip as the crudest, but inescapable, zero point. It has to do with a notion usually placed as the opposite of the egoism of the ego trip—namely, the notion of *altruism*. The Latin term *ego* has, as its opposite, the term *alter*. Altruism implies that the *ego* sacrifices its interests in favor of the other, the *alter*. In the latter case, one is motivated primarily by duty: it is said that we *ought* to love others as strongly as we love ourselves.

Unfortunately, what humanity is capable of loving from mere duty or, more generally, from moral exhortation, is very limited. From the Renaissance to the Second World War about 400 cruel wars were fought by Christian nations for the flimsiest of reasons. It seems to me that in the future more emphasis has to be given to the conditions under which we most naturally widen and deepen the “self.” With a sufficiently wide and deep “self,” *ego* and *alter* are, in a way, transcended.

Early in life, the social “self” is sufficiently developed that we do not prefer to eat a big cake all by ourselves. We share the cake with our friends and our nearest. We identify with these people sufficiently to see our joy in their joy, and our disappointments in theirs. Now is the time to *share* with all life on our maltreated Earth through a deepening identification with all life-forms and the greater units: the ecosystems and Gaia, this fabulous old planet of ours.

Moral acts are acts motivated by the intention to follow the moral laws at whatever cost; that is, to do our moral duty solely out of respect for that duty. Therefore, the supreme *test* of our success in performing a pure moral act is that we do it completely against our inclination: we, so to speak, hate to do it but are compelled to do it by our respect for the moral law. Kant

was deeply awed by two phenomena: “the heaven with its stars above me and the moral law within me.”

If we do something, we should do it according to the moral law, but if we do something out of inclination and with pleasure—what then? Should we abstain from performing the act, or try to work up some displeasure? Not at all, according to Kant. If we do what the moral law says is right on the basis of positive inclination, then we perform a *beautiful* act. Now, my point is that, in environmental affairs, perhaps we should try primarily to influence people toward performing beautiful acts. We should work on their inclinations rather than their morality. Unhappily, the extensive moralizing within environmentalism has given the public the false impression that we primarily ask them to sacrifice, to show more responsibility, more concern, better morality. As I see it, we need to emphasize the immense variety of sources of joy that are available to people through an increased sensitivity toward the richness and diversity of life and the landscapes of free nature. We can all contribute to this individually, but it is also a question of local and global politics. Part of the joy stems from the consciousness of our intimate relation to something bigger than our ego, something that has endured for millions of years and deserves continued life for many more millions of years. The requisite care flows naturally if the “self” is widened and deepened so that protection of free nature is felt or conceived as protection of ourselves.

Academically speaking, what I am suggesting is the supremacy of environmental ontology and realism over environmental ethics as a means of invigorating the environmental movements in the years to come. If reality is as it is experienced by the ecological self, our behavior *naturally* and beautifully follows strict norms of environmental ethics. We certainly need to hear about our ethical shortcomings from time to time, but we change more easily through encouragement and through a deepened perception of reality and our own self—that is, a deepened realism. How can that be brought about? The question needs to be treated in another paper! It is more a question of community therapy than community science: a question of healing our relations to the widest community, that of all living beings.

The subtitle of this paper is “An Ecological Approach to Being in the World.” I now want to speak a little about “Nature,” with all the qualities

we spontaneously experience as being identical with the reality we live in. This means a movement from being in the world to being in Nature. Then, finally, I shall inquire into the goal or purpose of being in the world.

Is joy *in* the subject? I would say no. It is just as much, or as little, *in* the object. The joy of a joyful tree is primarily “in” the tree, we should say—if pressed to choose between the two possibilities. We should not be pressed, though, because there is a third position. The joy is a feature of the *indivisible*, concrete unit of subject, object, and medium. In a sense, self-realization involves experiences of the infinitely rich joyful aspect of reality. It is misleading, according to my intuitions, to locate joys inside my consciousness. What is joyful is something that is not “subjective”; it is an attribute of a reality wider than a conscious ego. This is philosophically how I contribute to the explanation of the internal relations between joy, happiness, and human self-realization. However, this conceptual exercise is of interest mainly to academic philosophers. What I am driving at is probably something that may be suggested with less conceptual gymnastics, namely, that it is unwarranted to believe that how we feel Nature to be is not how Nature really is. Rather, it is a reality so rich that we cannot see everything at once; we see separate parts (or aspects) in separate moods. The joyful tree I see in the morning light is not the sorrowful one I see that night, even if they are the “same” tree in terms of their abstract (physical) structure.

It is very human to ask about our ultimate goal or purpose for being in the world. This may be a misleading way of putting the question. It may seem to suggest that the goal or purpose must somehow be outside of, or beyond, the world. Perhaps this can be avoided by using the phrase “living in the world.” It is characteristic of our time that we subjectivize and individualize the question asked of each of us, What do *you* consider to be the ultimate goal or purpose for *your* life? Or we leave out the question of priorities and simply inquire about goals and purposes.

The main title of this paper is motivated partly by the conviction that *self-realization* is an adequate key-term expression that one would use to answer the question of the ultimate goal in life. Of course, it is only a key term. An answer by a philosopher could scarcely be shorter than the little book *Ethics* by Spinoza.

To understand the function of the term *self-realization* in this capacity, it

is useful to compare it with two other terms—*pleasure* and *happiness*. The first suggests hedonism; the second, eudaemonism, in professional philosophical (but just as vague and ambiguous) jargon. Both terms connote states of feeling (in a broad sense of the term). Experiencing pleasure or being happy is to *feel* well. One may, of course, find that the term *happiness* connotes something different from this, but the way I use *happiness*, one standard set of replies to the question “How do you feel?” would be “I feel happy” or “I feel unhappy.” The following set of answers to the question would be rather awkward: “I feel self-realized” or “I do not feel self-realized.”

The most important feature of self-realization, as compared with pleasure and happiness, is its dependence on a certain view of human capacities (or better, human potentialities). Again, this implies a particular view of human nature. In practice, it does not imply a general doctrine of human nature. That is the work of philosophical fields of research.

An individual whose attitudes reveal that he or she takes self-realization to be the ultimate or fundamental goal in life has to have a view of his or her nature and potentialities, and the more one’s nature and potentialities are realized, the more self-realization there is. The question “How do you feel?” may honestly be answered in the positive or negative, whatever the level of self-realization. If one has attained a certain level of self-realization, the question may in principle be answered in the negative, but at this point, following Spinoza, I take the valid way of answering the question “How do you feel?” to be positive, because the realization of the fulfillment (using somewhat less philosophical jargon) of one’s potentialities is *internally* related to happiness. It is not, however, related in such a way that by *deliberately seeking* happiness, one thereby realizes one’s self. John Stuart Mill makes this point clearly in his philosophy: you should not deliberately go looking for happiness (“Happiness, to be got, must be forgot”). That is a bad way to proceed even if, with Mill, you take happiness to be the ultimate goal in life. I think that it is much better deliberately to seek self-realization, to develop your capacities—using a rather dangerous word because it is easily interpreted in the direction of interpersonal rather than intrapersonal competition. Even the striving implied in the term *competition* may mislead. Dwelling in situations of intrinsic value, spontaneous nondirected awareness, relaxing from striving, are all conducive to self-realization as I understand it. Of course, there are infinite variations among human beings, depending on cultural,

social, and individual differences. This makes the key term *self-realization* abstract in its generality; nothing more can be expected when the question is posed as it is: "What might deserve the name of the ultimate or fundamental goal in life?" We may reject the meaningfulness of such a question (I don't), but for those of us for whom it has meaning, an answer using few words is bound to be abstract and general.

The third of the three key terms—*self-realization*—has the merit of being clearly and forcefully applicable to any being with a specific range of potentialities. I limit this range to living beings, using "living" in a rather broad sense. I do not feel that the terms *pleasure* and *happiness* are so easily generalized. Having already introduced the rather general concept of ecological self, I feel that the concept of self-realization naturally follows.

Let us consider the praying mantises, a formidable group of voracious insects. They have a nature that fascinates many people. Mating is part of their self-realization, but some males are eaten while performing the act of copulation. While being devoured, is he happy, is he experiencing pleasure? We do not know—but well done if he does! Actually, he feeds his partner so that she has strong offspring. It does not make sense to me, though, to attribute happiness to these males. Self-realization, yes; happiness, no. I maintain that there is an internal relation between self-realization and happiness among people, and among some animal groups. As a professional philosopher, I am tempted to add a point inspired by Zen Buddhism and Spinoza: I agree that happiness is a feeling, but the act of realizing a potential is always an interaction involving, as a single concrete unit (one gestalt, as I would say), three abstract aspects: subject, object, and medium. Moreover, what I have said about joyfulness in Nature holds as well for happiness in Nature; they should not be conceived as merely subjective feelings.

The richness of reality is becoming even richer through our specific human endowments; we are the first kind of living beings we know of that have the potentialities of living in community with all other living beings. It is our hope that all these potentialities will be realized—if not in the immediate future, then at least in the somewhat near future.

The Connection of “Self-Realization!” with Diversity, Complexity, and Symbiosis

“Self-realization!” with a capital *S* is a norm formulation inspired by the part of philosophy traditionally called metaphysics. The terms *diversity*, *complexity*, and *symbiosis*, on the other hand, are all taken from ecology. There is a kind of terminological tension. The function of “self-realization!” is in part to take care of human ethical commitments essential to avoid the uncritical cult of life characteristic of some philosophies of great impact early in the twentieth century.

The conceptual bridge from self-realization to positive evaluation of diversity, complexity, and symbiosis is furnished by a concept of self-realization potential, and the idea that the overall self-realization in our world is increased by *realization* of such *potentials*.

The plural of *potentials* is crucial: it introduces plurality in unity. The term *self-realization* by itself does not immediately suggest plurality, nor does the intuition urging “self-realization!” involve any plurality. *Self* with a capital *S* is a term connected with such metaphysical terms as *Ātman* and *the supreme whole*.¹ These are cognitively obscure, but essential terms.

In the last 2,500 years the relation between unity and plurality has been one of the main issues in philosophy, starting with Parmenides in the West. There is little chance, I happen to think, that any ecosophy *X* could significantly contribute to the *solution* of the *conceptual* problems involved. In the twentieth century there has been more search for “unity in plurality” than for “plurality in unity.” If, however, one chooses to start with “self-realization!” it is the problem of transition to the manifold of nature that is most urgent.

In the (T₀) formulations of Ecosophy T this is done by means of the

This article was reprinted with permission from *Ecology, Community, and Lifestyle: Outline of an Ecosophy* by Arne Naess, translated by David Rothenberg (New York and Cambridge: Cambridge University Press, 1990), 200–204.

term *self-realization potentials*. A closely related idea is that of microcosms mirroring macrocosms, an idea especially potent during the Renaissance. Each flower, each natural entity with the character of a whole (a gestalt) somehow mirrors or expresses the supreme whole. An essential characteristic is that the macrocosm is not apart. The relation is not like that between a big elephant and a small mouse. Microcosm is essential for the existence of macrocosm. Spinoza was influenced by the idea when demanding an immanent God, not a God apart.

Of course, the relation of the self-realization potentials and "self-realization" is not quite like that of macrocosm to microcosm. Every living being ("living" taken in a wide sense, as we know life today in some detail since Cambrian times) is taken to exemplify a genuine realization of a self-realization potential. (An aspect of biospherical egalitarianism!) There can be self-realization only through realization of self-realization potentials. By substituting "Complete self-realization!" or "Maximum self-realization!" for "self-realization!" we open the door for positive evaluation of an increase of the realization of potentials, that is, of more potentials being realized. This is made to imply continued evolution at all levels, including that of human culture. The realizations must be qualitatively different.

Numerical abundance as such does not count (that is, multiplication of entities so similar that they can be distinguished only by attaching different numbers to them or by putting them at different places in a coordinate system). One way of suggesting this distinction is to distinguish diversity from (mere) plurality. The term *diversity* is well established in biology, where it is used primarily to talk about diversity of species or of other qualitatively different living beings.

Further elaboration of the conception of diversity, and the introduction of concepts of complexity and symbiosis, clearly requires the support of hypotheses (or factual assertions) about the kind of universe we live in. Such support was, strictly speaking, necessary even when we began talking about self-realization, but only now is explicit mention of such support clearly needed. The "universe" we shall limit ourselves to is our planet, the Earth. We may also call it Gaia, and say it is alive, using "living being" in a wide sense.

In what follows I make a lot of implicit assumptions about life conditions on Earth, especially about their limitations.

Diversity may be defined so as to be only a *necessary* condition of the growth of realization of self-realization potentials. Then "maximum diversity" does not make sense, because many differences may not involve self-realization. To imply qualitative difference as mentioned above, it is better to introduce concepts of difference that distinguish it from mere plurality. The ambivalence of plurality stems in part from the finiteness of the planet as a whole. In some versions of Ecosophy T, the adjective *maximum* is added to "diversity!" The intention is to proclaim that there is no inherent limit to the positive character of growth of diversity. It is not intended that an increase is good even if it reduces the conditions for realizing other norms. So if the adjective *maximum* is retained, it must, in a more precise version (a T₁ version), be taken as an abbreviation for "maximum, without counter-acting the realization of other norms of the system."

Complexity as opposed to complication is (in Ecosophy T) a quality of organisms and their relation to their environment. It is characterized by intimate interrelations, deep interdependence of manifold factors or elements. After death a rhinoceros is a tremendously complicated part of nature inhabited by trillions of other, mostly less complex organisms. A victim of African sleeping sickness manifests the intimate interrelations between a human individual and colonies of the flagellate *Trypanosoma gambiense*. Each of the flagellates has an unfathomable complexity of structure, but we recognize the human being as of a still higher order of complexity.

In a diabolic world, evolution might have proceeded in many ways like in ours except that parasitism might have made every being capable of conscious pain, suffering from birth to death. The increase of the amount and the intimacy of interrelations and interdependencies might in the world of diabolic parasitism have resulted in a level of intensity of hellish suffering. Therefore, complexity of organisms as such and complexity of interdependencies would not in Ecosophy T be taken as an intrinsic value. I say "would" not, because the term *complexity* in that philosophy is taken in a somewhat broader sense such that it can be applied to *how* living beings spend their lives. From the point of view of biology, it comprises behavior and, at least in mammals and birds, gestalt processes whereby increasing complexity of consciously experienced wholes can be realized. There also, though, mere complexity as such cannot yield an increase of Self-realization. Here a concept of symbiosis, of life together, enters the framework. The slo-

gan “Live and let live!,” referring to the interdependencies whereby both partners in a relationship are enriched or at least not hampered, furnishes a crucial idea in addition to diversity and complexity.

If complexity is defined in the direction of the opposite of simplicity, “Maximum complexity!” cannot support Self-realization. Only if, as in the case of “Diversity!,” some restraining clause is inserted does maximizing make sense.

If we proceed from nonhuman to human ecology, and from there to cultural anthropology, the symbiosis idea may be illustrated in relation to various ways of realizing a caste system. When Gandhi talked positively about a caste system, he had an ideal system in mind—never realized. Parents were to instruct their children and work together with them as they grew up. Their useful occupation would be interrelated with and interdependent with those of families specializing in other kinds of services to the total community. Mobility between castes of this kind was to be discouraged, not prohibited. Status in the sense of dignity, respect, and material standard of living should be the same: an egalitarianism between castes, an illustration of symbiosis between groups in a community.

Obviously, Gandhi fought the actual state of affairs in India’s caste system. In any kind of culture known to anthropology, in any kind of community we know of, there have been conflicts and strife, but in varying degrees. The norms of Ecosophy T are guidelines, and if elaborated into a comprehensive system, the system would have to include norms for conflict solutions. It is unrealistic, I think, to foresee full termination of deep conflicts or even to wish for such termination. The conditions of life on Earth are such that increase of self-realization is dependent on conflicts. What counts is the gradual increase of the status and application of nonviolence in group conflicts.

The *codification* of Ecosophy T is an action within the context of a conflict: it is my belief that many of the regrettable decisions in environmental conflicts in Norway and other places are made in a state of philosophical stupor. In that state, people in power confuse narrow, superficial goals with fundamental, broad goals derived from fundamental norms. The codification of our own visions and intuitions of ultimate values makes it possible always and repeatedly to ask, *Where do you stand?* What is the relation between your decision and your fundamental views?²

The Heart of the Forest

Many cultures express awe of the heart of the forest. To be in the heart of the forest has been, and still is, considered something very special, something quite different from merely walking along its outskirts or knowing or feeling the direction in which you should walk to reach the edge of the forest.

A forest that is not deep has no heart. To have a heart, it has to have depth, but that is not enough. Sometimes we may feel it is adequate to say we are deep in the forest, but we may lack the feeling or experience of being at its heart.

Development at or in the heart of a forest obviously changes everything. A *poster* saying “Now you are in the heart of the forest” is ridiculous at best. We who have been brought up in an industrial country may, of course, with some justice be said to be oversensitive when we react negatively even to a little poster or to the cottage of a ranger—well hidden and built with exquisite ecological care—but painful experiences again and again have made us sore.

It is encouraging that people who endorse “progress” and continued economic “progress” and continued economic growth often retain the heart metaphor along with the respect it entails. They react against utterances that seem to imply absence of any idea of the heart whatsoever and then compare it with the square kilometers of the whole forest: “You will understand that the road makes practically no difference. You say the road goes

This article was reprinted with permission from *Ecoforestry: The Art and Science of Sustainable Forest Use*, edited by Alan Drengson and Duncan Taylor (Canada: New Society Publishers, 1997), 258–60.

through the heart of the forest. You mean the center? We may let the road avoid the center if you are happier that way." Even enthusiastic developers reject this kind of crude talk.

We who sense the heart clearly see that a forest with such a road really is divided into two forests: The "roadiness" area is broad: hundreds of times that of the road itself. The forest changes into two smaller ones.

To be in the heart of the forest *implies* distance from the road but does not *mean* just "to be at a distance." To be there and be conscious about it is to spontaneously experience (and understand) a kind of quality or set of qualities that is unique. It transcends awareness of distance as such.

"How great a distance do we need?" In a practically impenetrable forest: a small distance. In an open, subarctic forest with small trees: a much greater distance. It would be a mere scholastic exercise to go into details because "distance" here has much to do with our imagination: you look one way, forest, forest, forest . . .; you look another way, forest, forest, forest, FOREST. The forest *fills* your mind; you are not a subject and the forest is not an object. The dualism is overcome.

To meet a big, wild animal in its own territory may be frightening, but it gives us an opportunity to better understand who we are and our limits of control: the existence of greatness other than the human. The same applies to meeting the greatness of the forest. We are not in control. Our eminent ecoanarchist Kropotkin in his little *Mutual Aid* (1955) tells us that people working in the vast Siberian forests have a tradition of shouting loudly and repeatedly before starting to eat their lunch brought from home: there may be a fellow human being who has lost his way and would need the food more urgently (an example of mammalian broad empathy or identification as an evolutionary force).

A spontaneous experience of terror of being alone in a great forest is an experience of something real, the-terror-alone-in-a-great-forest. We don't cherish terror, however, so it is better to reduce acquaintance with that part of reality. We should prepare ourselves, become informed, as we do before going out on a glacier, for example. The point I am trying to make is that spontaneously experienced negative characteristics of nature refer to something real, just as positive ones do. It is a task of wilderness enthusiasts to express their positive experiences.

Do contemporary forests in Europe have no heart? It would be mislead-

ing to answer yes, but the rate of destruction has been heartbreaking and, even if it is slowing down, invasion and fragmentation of undeveloped areas continue.

When a new road made for big vehicles is constructed where a week ago one had a path for walking and skiing, a new path through the woods is often carefully prepared, but ridiculously near the gigantic monster of a road. The preparation of the alternative path presumes that there is no loss of deepness of the forest as long as developments are out of sight.

How old must we be to spontaneously experience being at the heart of a forest? Small children growing up in a forest, even in small patches around their homes, may sometimes wander off straight into the "wild." They turn from time to time, looking back. Is Mommy still in sight? Is big brother there? When they trust enough to go farther into the woods, little boys or girls, I suppose, may feel the greatness and independence of the wild, independence even of the power of parents and big brother. Their body language tells a lot. They have, but they don't know they have, no control over the big world all around them. Don't underrate children!

The outlook for the near future is grim, but I feel it impossible to believe that destruction will continue until there is no forest with a heart.

An Outline of the Problems Ahead

Introduction

After sixty years' participation in international conferences, most of which have been rather unsuccessful, it astonishes me that I feel that this one will make a difference. One reason I feel this way, I guess, is because of the great areas of agreement among us.

One of the remarkable agreements seems to be that it makes sense to speak of unfair or unjust policies in relation to nonhuman beings. There are also many other areas in which agreements or near-agreements were small twenty or thirty years ago.

From the point of view of the methodology of conferences, there is an important consequence: we face an overwhelming danger of preaching to the converted. It is essential, being close together here, to get clear about our disagreements. We shall then have a better chance of standing together in the ugly social and political conflicts ahead. We shall know better to what extent we can firmly rely on each other in those conflicts.

Environment and Development

First, I wish to consider some terminological and conceptual recommendations.

This article was presented as the opening keynote address at the Conference on Environmental Justice and Global Ethics for the Twenty-first Century, October 1–3, 1997, Melbourne, Australia. It was reprinted with permission from *Global Ethics and the Environment*, edited by Nicholas Low (New York and London: Routledge, Taylor & Francis Group, 1999), 16–29.

Some conflicts are called conflicts between development and environment.

In the 1950s and 1960s the question was asked, How can undeveloped countries change into developed ones? Can and should the developed countries play a positive role in this process? The underdeveloped countries were defined in terms of unsatisfied needs among the vast majority of their populations, especially material needs—not, for example, the need not to be harassed by the brutal state police of an authoritarian government. From the point of view of the people in both the so-called underdeveloped and the developed countries, the needs were rightly considered real ones, not mere wants and desires. The use of the word *needs* for the latter creates confusion. A minority in the so-called developed countries considered it a question of justice to try to help the underdeveloped countries become developed, but developed only in the sense of satisfying the obvious needs of the large majority. Aid was proposed and carried out on a minor scale, often misguided. We learned that to reach the desperately poor was more difficult than expected, and that different means than the humanitarian ones were necessary. Then a new maxim was created: “Trade, not aid!”

Articles were imported from poor countries, and shoppers found shelves marked “products from . . .” where the name of the so-called underdeveloped country could be seen. The volume of such goods was small compared with what was expected. This strategy too failed to have the hoped-for great impact.

Despite the fact that the Norwegian U-Help (help to underdeveloped nations) reached 1.17 percent of GDP, a minor but well-established party agreed with me that the goal should be 2 or 3 percent and that the projects should be more professional, including, for example, extensive studies of local sociocultural conditions and prolonged in-country stays by experts. Years, not months, were needed. I succeeded in broadening the India projects: India ought to send people to us in Norway, with Norway of course paying the expenses, because we certainly also need help, although not of the material kind. Mutual help! India, however, sent only one person, a professor! Our social and spiritual needs were certainly not properly covered!

The efforts to create vigorous trade did not succeed, and we got a new trend—or new “discourses” as they are called today—those of underdeveloped countries being assisted through huge loans to reach industrializa-

tion, it being taken for granted that their economic advance should be measured by economic growth and GDP. In my view, a terrifying vision was created: that of a global search to reach the level of consumerism and waste characterizing the rich, industrial states, as if both environmental sustainability and life quality—the way you feel your life—can be ignored. They are clearly not proportional to consumption and waste, and neither is economic advance proportional to economic growth and GDP. As to the loans, justice requires them to be annulled.

If we wish to retain the general term *development*, we should class the rich industrial countries as overdeveloped. I think it advisable, though, only to use the complex term *ecologically unsustainable development*, here defining development as volume and direction of *change*. This makes development a kind of vector, which by definition has the properties of magnitude and direction.

A slogan used in the deep ecology movement is relevant here: “Full richness and biodiversity of life on Earth.” The term *richness*, or *abundance*, as added to biodiversity, is essential because we should not often degenerate into ecotourists. We need life all around us. The large Tysfjord in Norway is yearly invaded by about 400 *Orca orca* whales—a bad name for them is killer whales. Norwegians living along the fjord enjoy whale safaris in their neighborhood, but not as mere tourists. All the *Orca orca* families and many old specimens have proper names. One hears cries such as “Where is the so-and-so family?” “I have not seen uncle so-and-so this year!” The thought of killing them is abhorrent, although most people along Tysfjord loudly support the two hundred or so whalers who hunt minke whales. Their culture is in many ways a hunter-gatherer culture, and locals and experts agree that there are about 80,000 minke whales. The point I want to emphasize here is that in the next century the norm will be abandoned that we human beings have the right to go on killing as long as the existence of a species of marine mammals is not threatened. Abundance, please! Marine mammals might be the first wide class of mammals the abundance of which will be well protected through international regimes.

Two kinds of conflicts emerge: when a concept of ecological sustainability is introduced, to what extent can it be expected that countries with grave unfulfilled material needs will follow a course of ecologically sustainable development? The answer by economic and political theorists has of-

ten been that fulfilling the grave needs must have a priority: first development, then environmental regulations. Others have answered that both must be seriously considered together. I agree. Evidently, though, some of the “expensive” rules that the rich countries can afford to introduce cannot be exported to the economically poor countries. We need strong measures to moderate the increasing ecological unsustainability, yes, but together with serious attention to other problems. If a father can rescue his children from starvation only by killing the last tigers, it is, in my view, his duty to kill the tigers, provided he has the necessary (exceptional) power to do so—but shame on the government of his country, and shame on us!

The interference of the materially richest countries in the ecosystem takes place in a per capita excessive and unfair way. Since the governments of these countries do not intend to support (in ethically fully acceptable ways) a slow decrease of population, they must significantly reduce the standard of living. I do not narrow this down to “material standard of living,” because even in nonmaterial areas there is significant waste, often institutional waste, for example, when teaching chemistry students. How can people in the poor countries believe in the importance of ecologically sustainable development when they see how the rich live, and intend to continue living?

It is said that pollution knows no borders. Nevertheless, the rich countries may perhaps continue their unecological policies for several generations, and also profit in terms of long-distance trade from a destructive global free market, at the same time that ecological conditions in the poorest countries become desperate. Unfortunately, before the powerful rich countries are hit by tragedies far greater than that of Chernobyl, conditions are likely to worsen. When I am asked whether I am an optimist or a pessimist, I answer “An optimist!” but I add “on behalf of the twenty-second century.” If there is a large audience, I point to individuals and shout, “How far down we go in the next century depends on YOU, YOU, YOU!”

How can it depend on each of us? I shall answer with one of my favorite slogans: “The frontier is long!” By this four-word formulation I refer to the very great diversity of jobs available for those who wish to be “activists.” There is a tendency of activists to say, What *you* are doing cannot have the highest priority (or does not hit the core of the problems); come over to where I work. This is mostly countereffective. We should help people find

what is most interesting to them, pointing to very different, but important issues. We should also insist that they stand up and talk and write and perhaps, or perhaps not, occasionally take part in direct actions. Personally, I have only been arrested and carried away by the police twice, but I cherished my close contact with them. After all, green societies will presumably also have police.

A factor that is sometimes underrated is the tone of the communication between conflicting groups. The heat of the debate tends to reduce the value of the communication. To avoid this reduction, it is important first of all not to distort the opponent's views. We have to shorten and simplify the views of opponents as well as our own, but when the opponent's views are rendered in a way that makes them less tenable or less ethically justifiable, or when we attribute views to the opponent that the opponent does not have, or if consequences are invented that do not strictly follow, then no agreement can arise. Moreover, the atmosphere of the debate is poisoned, and it becomes impossible to resolve the conflict or to reach an understanding about it.

Nonviolence in debate today is more relevant than ever because of the ever-increasing role of communication between an increasing number of people about an increasing number of crises. This is why I have mentioned the role of nonviolent communication in environmental ethics. There is a second reason: we ought to talk much more to people who despise what we are doing, or to businesspeople who find the usual pictures of green societies unbearably boring. Task-mindedness requires less contact with the in-group, more contact with outgroups, businesspeople tell me.

Fair Distribution and Fair Profit from Nonrenewable Resources

From the point of view of the rich industrial countries (sometimes abbreviated to the "R's"), there are a number of areas of concern, all of which have philosophical relevance:

1. The R's maintain a standard of living that is unsustainable on a global scale.
2. The R's profit unduly from trade with the countries having a low

material standard (the L's), and especially through the behavior of corporations, they induce the L's to try to copy the unsustainable way of life in the rich countries.

3. It is an obligation of the R's to cooperate with the minority in the L's who are aware of the dangers of uncritical development and who try to rectify its direction. The cooperation must be based on an attitude of self-criticism on the part of the R's, and without the slightest tone of arrogance.
4. The huge old loans that the R's furnished for development of the L's served only in part the long-range independent line of development of the L's. The interest that the L's pay on those loans today is a burden and must be eliminated.
5. Until the R's adopt a globally sustainable way of production and consumption *per capita*, it is their obligation to leave the industrial utilization of the natural resources of the L's for *their* sustainable development mainly in their own hands. This implies a control of the way in which the R's take over an unduly large fraction of the industrial processing.
6. The technical questions mentioned in the foregoing sections are very moderate compared with the political, both in the R's and in the L's. The present trend is toward *centralization* of trade, that is, inventing a global liberalization of trade, constructing an immensely strong global market. In some R's, such as the Scandinavian countries, the governments in the last half of the twentieth century have proclaimed support for economic decentralization and therefore local markets. The price of milk in Norway, to mention a concrete example, is much higher than in the world market. This is done to protect what is left of the fairly sustainable agricultural culture, to avoid large-scale industrialization of the production of life necessities. A free market is combined with ecological protectionism!

Fortunately, there are no strong opinions in the R's favoring authoritarian regimes, or belief that such regimes could ensure a responsible economic development. The main problems will have to be solved within the framework of democracies. The outlook today is grim because the public is interested in short-range problems, whereas environmental justice is a

long-range issue. Injustice may not result in any violent crisis seriously affecting the R's. The very few doomsday prophets evidently have been wrong in their predictions of big-headline catastrophes.

As an example of problems of environmental justice, let us inspect the distribution of sources of oil and natural gas. By chance England and Norway are placed near enormous oil and gas resources. In the early 1960s these countries had the necessary scientific and technical know-how to make large-scale use of these resources. The international rules at that time allowed them to have a complete monopoly. They could do what they wanted: "produce" millions of barrels of oil a day and a comparable amount of natural gas. Private and state corporations could make gigantic profits from selling the oil and gas, within their own market, but preferably by exporting it.

In Norway, a minority in the 1960s found this arrangement unjust: unfair to the economically poor countries and unfair to future generations. Their view was that we ought to hand over a part of it to the Third World and that we ought to limit the extraction of oil and natural gas so that future generations could have a fair amount at their disposal, or if necessary, simply leave the gas and oil untouched. The industrial extraction causes great carbon dioxide pollution. The fair-play supporters have not changed their position.

Ecologically, the use of oil and gas for heating and transport should and probably will decrease, but as long as the price is very low, other means cannot compete. The pressure to use very large amounts is great within current nonecological economies. The Norwegian production might within one generation (thirty years) be cut down by about 80 percent, and some of the reduced volume should be available to those countries that need the resources today. If—and this is a guess—the technology of renewable energy sources predominates all over the planet within one or two generations, the consumption of oil and gas resources would and should be able to reach a level that makes them available practically indefinitely.

To decide the policies, an international energy commission is required, and today it might be set up by the United Nations. The technology required is "advanced" and costly, and it should not be necessary for users of oil and gas to build the great platforms and do the extraction themselves. The main thing is to view the resources of oil and gas, and primarily those

in the oceans, as common resources for humanity, to avoid obviously unecological ways of using them, and especially to avoid the use of oil and gas for heating and transport. The present-day situation is ethically, ecologically, and politically irresponsible. Although a fully satisfactory solution to the problems involved cannot be expected to materialize within ten years, perhaps not even within a generation or two, something could be done immediately to propose practical changes on a minor scale. It is not my job in this opening keynote speech to suggest steps to be taken, but the access to sources of energy today seems to me an issue requiring immediate action on the level of the United Nations.

Most of the products we buy today have a very complicated genesis. The necessary natural resources have been collected and then a long series of processes, let us say ten processes, have been involved, ending with a "finished" product to be sold at a definite place at a definite time. The poor countries do not take part in, say, the last eight processes. The rich take over, and the corporations take over the 80 percent *profit*. The more processes of the industrial kind, the higher the profit—roughly speaking, of course. How could this be changed? Some but not enough people are trying to find out how to proceed. I cannot do more than remind us of the existence of the problems that fairness implies.

From what I have said, it does not follow that there should be the same level of material production and consumption per capita in every country. However, the difference today between rich and poor—inside countries and among countries—is clearly unacceptable and may cause future violent conflicts if the gap continues to widen.

Perhaps I have preached too much to the already converted. I shall, in my survey, mention an area that is rather touchy emotionally. It is generally conceded among fairly well informed people that any population increase in the rich consumerist and wasteful countries gravely contributes to the ecological crisis. We in the rich countries should in the near future be able to tell the rest of the world that our governments and public institutions do nothing to maintain the population level. We should be able to talk about how much we try to inform our people of the grave responsibility we incur as the situation is today. With a half percent fewer births a year, that is, 199 instead of 200 births in an area, a process would start that with time would eliminate serious population pressure on areas in which people pre-

fer to live—for example, certain coastlines. As it is now, such areas tend to lose their special qualities because of overcrowding. Of course, the main problem is perhaps not the unpleasant population pressures in the rich countries but the unwarranted signals the rich countries send to the Third World: try to reach our level of material standard of living and waste; we see nothing wrong about continuing to increase our population without changing our way of life.

As long as countries such as the United States do not work to stabilize or reduce their population, it is completely unacceptable to ask the poor countries to do so. In any case, to talk about “overpopulation” is unnecessary. People tend to interpret this as a violent threat, and they tend to forget that we are talking about a time span of perhaps hundreds of years. Our goal is to secure a sustainable high quality of life for everybody and with free choice decide where to live. This implies reduction of population pressures.

Some people are active within environmentalism on the basis of, or are strongly motivated by, their life philosophy. I would, as a supporter of the deep ecology movement, say they act in part on the basis of their “ecosophy.” Others call themselves supporters of the social ecology movement (Bookchin 1980, 1982). The latter tend to think that the domination over nature (as a goal) is caused by man’s domination over man. Environmental justice may from this point of view be realized through giving up hierarchical thinking of every kind. In Uruguay, social ecologists have tried to empower and emancipate fishermen and help them preserve old ecologically sustainable methods, rejecting the destructive new methods of the industrial societies. Domination implies injustice. Applied to man’s domination of other beings, a generalized Rawlian fiction is relevant: forget completely who and what kind of being you are, and ask, What social and interspecies relation would you consider just? (Rawls 1971 cf. “veil of ignorance”). If you think of yourself as a rattlesnake, you would find it unjust of human beings to kill you. You are dangerous only to people who walk carelessly and hastily within your territory. You would tell human beings: As a rattlesnake, I am entitled to live where I was born. Human beings can scarcely maintain the view that there is an overpopulation of rattlesnakes.

Opinion surveys of how people feel about environmental justice and, more generally, about environmentalism, suggest marked positive attitudes. When they vote, though, people tend to give their votes to the

politicians and political parties they criticize for unsatisfactory and weak environmental policies. The strong term *schizophrenia* is often used in this connection. People feel an environmentally deep commitment, but they also have a deeply seated habit of choosing politicians who do not have any concrete proposals. Under these circumstances, politicians claim that they cannot propose strong ecological measures without losing votes. They must get a minimum of feedback from the voters. In Norway, two attempts by established parties to put strong measures into their programs clearly resulted in a loss of votes. It is obvious that environmental justice proponents must hail any courageous initiative by any leaders of a political party—by fan mail and otherwise. I am speaking about the situation in democracies, where the attitudes of individual voters are said to have some influence, however small. Surveys suggest complete agreement with the proposition that if democratic governments are unable to realize environmental justice, authoritarianism or dictatorships will not have a chance either. On the other hand, it is an open question whether or not undemocratic regimes will appear in the next century if the environmental situation becomes much more threatening. It is unreasonable to believe, though, that authoritarians would be highly motivated by a consideration of justice as fairness.

The Europeans have had the supreme “advantage” to colonize the world. I place advantage in inverted commas because, in the long run, this advantage may prove to have been a disadvantage, not only for the rest of the vast population of the world, but even for the Europeans. Now they fear the increasing global economic competition and feel compelled to unify within one immense market, the European Union, with “free flow” of international capital and a vast increase of long-distance trade. Ecological protectionism is prohibited—protection, for example, against import of cheap products made cheaply by disregarding the resultant pollution and energy waste. The increasing waste helps economic growth, and the EU is in part motivated by belief in such growth. It is a bad sign that opinion in the United States about a “closer and closer” European Union is very favorable. (Throughout the twentieth century, Americans have tended to say to us Scandinavians, “Your countries are too small, much too small! Integrate! It is very harmful not to have a common market. You will soon be unable to compete!” Competition is not everything, however, and “Big is beautiful” has only limited applicability.)

The European Union represents a formidable step toward globalization of a definite kind of liberal economy. The Foundation for Deep Ecology in San Francisco arranged in New York the first international conference against this globalization. It is increasingly being realized in the United States that the liberal economy favors the strongest—that is, the United States—but not the weakest.

The popularity of a gradual decrease of environmental injustice is today moderate in the R's, and knowledge about what is going on is also moderate. Nevertheless, the activism of a small minority may ultimately have a sufficient impact to change policies. Slavery and certain other major evils were eventually eliminated from large areas through the persistent work of small minorities. The majority feel the rightness of the cause, but it takes time before they join.

Tens of thousands of young people in the R's would gladly cooperate with the small, environmentally active minority in the L's, but they must be assured that they can obtain jobs in the R's after having spent one or more years in the Third World. As it is now, they are threatened with unemployment, and they cannot take the risk of "losing" time by doing the very important and meaningful work abroad. Many of those who come back to their R's have indispensable knowledge, including proficiency in one or more languages of the Third World. It would be a crime to let them go unemployed or consign them to jobs in advertising or other flourishing industries. They are needed in the institutions in the First World dealing with relations to the Third World, and to the Fourth. (I am sorry about using these misleading numbers, but the First World is the first that must change its unsustainability!)

The ethically unacceptably high level of unemployment in the European Union may be lowered if green economics and green political theory are taken more seriously. What do politicians tend to answer when they are told this? They tend to say, at least in Scandinavia, that they largely agree with the greens but that they are dependent on the voters. Again and again, it is clear that the public is not ready to accept the "burdens" it thinks are implied by responsible environmental policies. The public resists any major political move.

We could read, especially in the 1970s and 1980s, about environmentalists who *predicted* vast environmental catastrophes. They were called eco-

logical doomsday prophets. Who were they, and who are they today? A great many professional ecologists have asserted that *if* such and such trends continue unhindered, the state of affairs will approach a major catastrophe—but they are evidently not doomsday prophets. The usefulness of their warnings is clear: something must be done, and the sooner the better. The last words are important. Unsustainability does not increase linearly, but exponentially—I would guess roughly between 0.5 and 3.0 percent annually. If it is 3 percent, then unsustainability doubles within twenty-three years. Quantification, however, is rather unsuitable here.

Unhappily, some serious ecologists in their publications have greatly underrated the richness of the Earth's resources. The most powerful countries might continue their long-term unsustainable lifestyle for many years after there are very serious crises elsewhere, for example, lack of clean water and a high frequency of environmentally induced illnesses. In certain areas, at least 20 percent of illnesses are today considered to be environmentally caused. No prominent ecologists are doomsday prophets, however. The term is now used mainly in the literature characteristic of the international ecological backlash: the worldwide attempt to discredit environmental movements.

Less talk should have been devoted to discussions about resources and more devoted to environmental justice as fairness. Until about twenty years ago, fair distribution and fair access to *appropriate* technology could have assured satisfaction of the vital needs of a rapidly increasing population. Toward the end of this century, the general level of material aspiration has increased significantly, and consequently what was in 1970 considered adequate to satisfy vital needs is now considered unsatisfactory. Here we are touching on a very complex and delicate situation: environmental justice cannot be defined in terms of a global approximation to the production and consumption pattern of the rich industrialized countries. That pattern cannot be universalized. Simply to continue that pattern in the rich countries is in itself unjust, unfair. It violates the high-ranking norm of universalizability, it accelerates the rate of decrease of life conditions of the planet, and it neglects future generations.

The impact of the maxim "Increase environmental justice!" depends on how the sufferers of unfair arrangements *define* the status of satisfactory environmental justice. It must not be defined in terms of material standard

of living, but in terms of access to resources, access to a level of technology that makes industrial and other use of the resources practicable. At all times, a concept of vital *need* is relevant: the ocean of human desires seems never to diminish, whatever the level reached. However, the mere existence of a group that suffers from lack of satisfaction of vital needs does not entitle this group to claim environmental unfairness. There must be other groups or countries that have been unfair in their relation to the sufferers.

Green Economics and Political Theory

Since the 1960s there has been a mounting stream of publications conveniently called contributions to Green economics and Green political theory. The capital *G* indicates that not only selected practical reforms are considered, but also significant, substantial theoretical changes involving changes of attitudes among people. It is a difference comparable to that between the “shallow” and the “deep” ecology movements. It is not my task to express any opinions within this extended field of economic and political discourse, but a few points may be tentatively formulated.

Today’s strict market economy makes it extremely difficult to avoid substantial unemployment. Highly competent economists who are at the same time active within environmentalism are often called Green economists with the use of the capital *G*. They differ from green economists—with an ordinary *g*—much as supporters of the deep ecology movement differ from the movement that does not envisage substantial changes of a social and political kind. The fundamental point I wish to make may be thus formulated: Green economics envisions a labor-intensive economy. The kind of liberal economy today is capital-intensive, and unemployment is difficult to keep down. It is a formidable case of injustice to deprive people of jobs that enable them to support themselves. Green economists warn against just closing a factory here and there because of clearly unacceptable levels of pollution. There must be a consistent Green economy in order to significantly reduce ethically unacceptable unemployment.

Corporations calculate what it costs for them to reduce carbon dioxide emissions by 20 percent or more. Governments must somehow arrange “the rules of the game” so that it becomes profitable to change ways of production in a Green direction. Green economic principles require free markets,

but also a kind of ecological “protectionism” such that ecological costs are included in prices. People look for “green products,” but deeper green, that is, Green products seem to require an economic system that relies on *incentives* provided by public institutions.

The so-called green political theorists all work within a democratic framework. This is compatible with a critical attitude toward the operation of present-day democracies. How can it be avoided that there are pressure groups so powerful that it is in practice more or less impossible not to submit to their special interests? There are many other areas in which critical discussion is lively, and hopefully creative.

These remarks on economics and politics have centered on conditions in the “overdeveloped” countries. It is clear that the kinds of Green, or even green, policies under discussion in the rich countries are in part out of reach for the economically poor countries. Must we conclude: “Development first, then environment!”? Is it a form of environmental injustice to advise economists and politicians in the Third World to ask for Greenness? On the contrary. To protect resources for future generations *and* develop profitable use of resources, a multitude of ecologically motivated policies *within* their economic reach must be realized. Cooperation with well-trained, well-educated Westerners is also a must within a number of fields of economic production. There is work to be done by young Westerners with knowledge of relevant local languages who will stay where they can cooperate for a whole year, and preferably many more years. The Third World’s relations with the rich nations suffer seriously from the tendency of people to stay for some months or a year. Much more would be accomplished if people stayed more years to establish trust and acquire deeper knowledge of the relevant social and cultural affairs. Young people with specialized competence must be guaranteed that they will not come home to problems of unemployment. This can be avoided in the most satisfactory way by using their competence within permanent institutions of international cooperation.

All this requires political goodwill and informed opinions. So we are back to the problem of how to increase people’s awareness of the environmental justice challenges. How do we activate the constructive imagination of young people, appealing to their taste for great, global questions? One way is to help more people who travel as tourists combine their travels with study of the relevant cultures, and to encourage them to report on

how people there tend to experience themselves and the world—in short, a concentration on feelings and attitudes. More travelers could be induced to write about their experiences, articulate reflections that can be useful for those who seriously wish to take active part in the great movements of the next century, the movement for peace, the movement to eradicate completely unacceptable poverty, and the movement to establish ecological sustainability and justice.

In some rich countries, including Norway, the government seems to avoid taking environmental justice seriously by telling us that *first* the rich countries must help the rest of the world get rid of poverty, and only *then* should ecological unsustainability receive a high priority. “There can be no green society of poor people.” Yes, we may answer, but to eradicate poverty will take a lot of time, and we must not neglect the yearly environmental degradation and the injustices. We shall have to spend time, work, and money on both factors *now*.

Unfortunately, the reason that governments propose the elimination of poverty *first* is politically a very strong one: to spend, say, 0.5 percent of GDP on poverty is politically very much easier than to get voters to accept a substantial reduction of carbon dioxide emissions. “People are not ripe for such new policies.” They feel virtuous spending a little more on poverty, and it does not harm business.

The relation of population increase to environmental concerns has to be discussed. There are serious population pressures of different kinds in specific areas, but many people tend to feel that the word *overpopulation* suggests a threat to existing human beings. “You are the ones who are too many!” Fortunately, there is no need to introduce the term *overpopulation*.

Small children’s easy and safe access to patches of free nature not dominated by human beings has decreased drastically in many urban areas. Until recently, such access played an important role in children’s lives, but pressures to “develop” the patches—for example, turning them into commercial areas—have been immensely strong, and these pressures grow with population growth. The astonishing argument that the “value” of the patches is too great to leave them to children has been used implicitly or even explicitly. This is clearly environmental injustice toward children, and destructive use of *value* as a synonym for “market value.”

“Population pressure” may for some people sound misanthropic (“Do

people press me?”), but even in Norway with only 4.5 million people (in 2003) on 325,000 square kilometers—fewer than ten people per square kilometer—there are population pressures. People relish living along the fjords, but there are “too many” competing for the beautiful areas. Prices of real estate are sky-high, and it has been necessary to introduce laws defending the right to walk along the shoreline: no private property that extends all the way down to the edge of the water!

People who have a desire or need for elbow room may try to escape to a roomier environment, even leaving a place they love if this place has “developed” into what they experience as an anthill-like area. On the other hand, a family of six living in one small room in a skyscraper in downtown Hong Kong may prefer to stay there even if they have the opportunity to exchange it for a two-bedroom apartment in a much less crowded area, but one with not nearly as good access to their workplace. The term *crowding* is often used, but some people are perfectly adapted to what others call insufferable crowding. In short, by *population pressure* should be meant a situation in which pressures are *felt* because of the density of people; it should not be used as a term for mere situations of very high density. Fortunately, many people love high density.

When it is argued that a smaller population might in some areas make it less difficult to decrease environmental injustice, including that toward children, people tend to think in terms of significant population reduction within 100 years or even within a smaller time limit. It seems to be forgotten that even half a percentage annual reduction makes a significant difference in the long run, say in 500 years. To many people the very word *reduction* feels threatening, but mainly because they think in terms of ethically unacceptable measures such as those in China.

I mention population mainly to remind us of the need to debate population calmly and not pay much attention to extreme theoretical views, or extreme proposals. Personally, I am interested in the creative imagination fostered in children with easy and safe access to patches of free nature. These children need fewer gadgets made by adults. Every development restricting their free movement and play is misused, making them more dependent on objects bought on the market.

A generally accepted norm is severely violated in the rich countries: “Do not live in such a way that you cannot seriously wish that others would

also live that way, should they wish to do so.” This is the ethical norm of universalizability. Because of the seriously aggravated environmental conditions that would result if 1,000 million Chinese and 1,000 million Indians turned to the American (or Norwegian) way of life, we cannot seriously wish them to do so. We, of course, grant their right to live as we do, but it will not be possible without very grave consequences.

The above discussion of population problems does not imply that I consider those problems to have a high priority, only that they should not be neglected when speaking about environmental justice. We also have to look at the influence of various economic systems and ask, for example, whether a liberal, capitalist global economy is an asset or an obstacle, or neither—and how can indigenous cultures be protected economically?

All the areas we touch on have in common that we need high-quality mediators to soften polarization of conflicting points of view. We are all here as fallible human beings, with more or less strong convictions—but nevertheless fallible. Now I am full of anticipation.

I shall close with the formulation of two maxims or slogans:

The first is “The frontier is long.” What I mean is that the problems we face are so numerous, and the kinds of activity required of so many kinds, that there is room for everyone, whatever his or her inclinations and interests. You will all find something meaningful to do. Do not, however, pressure others to do the same thing you do; do not insist that a definite problem or kind of activity is *the* most essential.

The other maxim is “Concepts of justice are very similar around the world, but opinions on matters of fact differ widely.” Optimism to a large extent depends on the similarity of concepts, because people can more easily be persuaded to change their opinions about facts than their basic views about what constitutes justice. Here is an extreme example: millions of young Austrians and Germans supported Hitler in the early 1930s because Hitler convinced them that the treason of communists and Jews had caused Germany’s defeat in the First World War; that the terrible economic crisis of the 1920s, when it cost millions of marks to mail a letter, was due to the perfidy of the Jews; and that the biological makeup of the Aryans was superior and that of the Jews sinister. We all agree that these *factual* views were wrong, but we must concede that if they were right, some discrimination of Jews could not be classed as unjust. The young Nazis in the early

DEEP ECOLOGY AND THE FUTURE

1930s did not have a remarkably different concept of justice from us, but they were convinced about certain wrong factual matters. Few people tried to convince them that they were wrong.

In short, there is an immense need to patiently disseminate information, to dwell repeatedly on the concrete cases of injustice and on the concrete cases of ecological unsustainability. Do not hurry to complain about a basically different concept of justice! Remember the two maxims.

Deep Ecology for the Twenty-second Century

The title of this paper is not my title! Why did my friends insist on this title? Because of the many conversations I've had on the following lines:

NN: Are you an optimist or a pessimist?

Arne Naess: I'm an optimist!

NN (astonished): Really?

Naess: Yes, a convinced optimist—when it comes to the twenty-second century.

NN: You mean, of course, the twenty-first century?

Naess: No, the twenty-second! The lifetime of the grandchildren of our grandchildren. Aren't you interested in the world of those children?

NN: You mean we can relax because we have a lot of time available to overcome the ecological crisis?

Naess: Not at all! Every week counts. How terrible and shamefully bad conditions will be in the twenty-first century, or how far down we fall before we start back up, *depends upon what YOU* and others do today and tomorrow. There is not a single day to be lost. We need activism on a high level immediately.

This article was reprinted with permission from *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions (Boston: Shambhala Publications, Inc., 1995), 463–67. An earlier version of the article was published in *The Trumpeter: Journal of Ecosophy* 9 (1992).

The answer that I am an optimist is a reaction to the so-called doomsday prophets: people who talk *as if* nothing can be done to straighten things out. They are few in number, but they are heavily exploited by people in power who speak soothingly of the task ahead as not very formidable and assure us that government policies *can* turn the tide for the better. A telling example was on the cover of the influential *Newsweek* magazine just before the Rio conference: the headline read "The End Is Not Near." Inside, in the article, there was no pep talk, not even an admission that we are in for a great task that will require new thinking. This is just the opposite of what we hear when big corporations are in trouble; then the headlines proclaim "Greater Efforts Are Needed! New Thinking! New Leadership!" No slogans were offered like that of Churchill in 1940: "Of course we will win, but there will be many tears and much sweat to be shed."

In short, there is no time for overly pessimistic statements that can be exploited by passivists and those who promote complacency.

The realization of what we call *wide* ecological sustainability of the human enterprise on this unique planet may take a long time, but the more we *increase* unsustainability this year, and in the years to come, the longer it will take. How much is left of nature obviously depends on what we do today and tomorrow. The appropriate message is of a simple, well-known kind: the recovery from our illness will take time, and for every day that we neglect *seriously* trying to stop the illness from getting worse, the more time it will take. Policies proposed today for attempting to heal the planet are not serious. The deep ecology movement is concerned with what can be done *today*, but I foresee no definite victories much before the twenty-second century.

Roughly, I call ecological sustainability *wide* (or "broad") if, and only if, the change ("development") in life conditions on the planet is such that it ensures the full richness (abundance) and diversity of life-forms on the Earth (to the extent, of course, that human beings can ensure this). Every key word of this criterion, of course, needs clarification, but "wide" sustainability is obviously different from the "narrow" concept of ecological sustainability that is increasingly accepted politically: that is, the existence of short- and long-range policies that most researchers agree will make ecological *catastrophes* affecting narrow *human* interests unlikely. This kind of narrow sustainability is politically acceptable today as a *goal* for "global de-

velopment.” In contrast, broad ecological sustainability is concerned with overall ecological conditions on the Earth, not just with the interests of humanity, and the dangerous concept of development is avoided. By “development” is still meant something like an increase in gross national product, not an increase in the quality of life.

So the big, open question is, How far down are we going to sink before we start heading back up in the twenty-second century? How far must we fall before there is a clear trend toward *decreasing* regional and global ecological unsustainability? It may be useful, in this connection, to consider some possible scenarios.

1. There is no major change in ecological policies and in the extent of worldwide poverty. Major ecological catastrophes occur as the result of the steadily accumulating effects of a century of ecological folly. This dramatic situation forces new ecologically strict policies, perhaps through undemocratic, even brutal, dictatorial military means used by the rich countries.

2. The same development continues except for a major change in the poor countries, where there is considerable economic growth of the Western kind. Now there are five times as many people living unsustainably. A breakdown occurs very soon, and harsh measures are taken to fight chaos and to begin a decrease in unsustainability.

3. Several similar developments end in catastrophic and chaotic conditions, and subsequent harsh brutal policies are implemented by the most powerful states. A turn toward sustainability occurs, but only after enormous ecological devastation.

4. Ecological enlightenment develops: a realistic appreciation of the drastic reduction in the quality of life, increasing influence of the deep ecological attitude, and a slow decrease of the sum total of unsustainability. A trend toward decreasing unsustainability is discernible by the year 2101.

Our hope must be the realization of the rational scenario, one that guarantees the least strenuous path toward sustainability by the year 2101.

The three great contemporary worldwide movements that call for grassroots activism are extremely important here.

First, there is the *peace movement*; it is the oldest of the three and, at present, is remarkably dormant. I expect it to revive, however, if military expenditures do not rapidly decrease from the current level (1993) of about \$900 billion USD per year. Then, there are many movements, among them

the feminist movement and part of the social ecology movement, that I include as part of the *social justice movement*. We might refer to the third movement by the vague term *radical environmentalism*, because use of the specific terminology of deep ecology will, sooner or later, elicit boredom and aggression. A problem with the word *environmentalism*, though, is that it smacks of the old metaphor suggesting that humanity is *surrounded* by something outside: the so-called environment of human beings. Moreover, it will take a long time before *radicalism* ceases to be associated with the political red-blue axis (see figure 4, page 204).

Broad ecological sustainability may be compatible with a variety of social and political structures, provided they all point toward the green pole. Unfortunately, there is now (1993) a strong belief in Eastern Europe that policies must be blue (for example, participation in world economic markets) *before* they point toward the green pole.

It is not easy to be personally active in more than one of the three grassroots movements, but cooperation among the movements is essential. The ecological threat is not only one of war, but also of the immense military operations and associated industrial activity during peacetime. Cooperation between the ecological and the peace movements has been excellent for a long time. It is taking longer to establish close cooperation with all of the social justice movements, but because care, and the capacity to identify with all living beings, is so prominent in the deep ecology movement, injustice is taken seriously.

The small minority of supporters of the deep ecology movement who write in periodicals, talk in public, and organize conferences, meet people who are sometimes skeptical about their ethical concerns: is it true that they are much fonder of animals than of human beings? The answer is that, whatever the intensity of their fight for animals (or wilderness), they recognize the very special obligations we have toward our fellow human beings. What we propose is not a shift of caring away from human beings and toward nonhuman beings, but rather an extension and deepening of overall caring. It is unwarranted to assume that the human potential for caring is constant and finite, and that an increase of caring for some creatures necessarily reduces caring for others. The next century will see a general increase in caring if the ecofeminists are at least partially right.

The societies developing in the twenty-second century, at the earliest I

suspect, will not all look like the ideal green societies envisioned since the 1960s. Many will have traits more in common with what we have today. Will there be conspicuous consumption? Of course! What is conspicuous, however, and what will secure prestige and wonder in that century, will require only moderate physical energy to achieve. Several tremendously important things will be different: there will be no political support of greed and unecological production, and a tolerance of severe social injustice based on differences in levels of consumption will have disappeared.

To fight the *dominance* of something should be clearly distinguished from trying to *eliminate* something. We shall always need people who insist that their main goal in life has not been to amass money but to create something useful in a world in which money is a measure of success and creative power. In sociology, we often talk about entrepreneurs in the wide, important sense of socially energetic, creative, influential people. Their work is often controversial, sometimes clearly destructive, but they are required in any dynamic society.

I envision big, but not dominating, centers of commerce, learning, and the arts, and big buildings and vast machinery for continued explorations in physics and cosmology. To do something analogous to driving long distances in a conspicuous luxury car, however, a family would have to renounce many goods that other people could afford. A good deal of the family's "Gaia gift" would be spent on traveling in its prestigious car.

Rich people who work in the world of business and are supporters of the deep ecology movement sometimes ask in all seriousness whether green utopian societies *must* look so dreary. Why portray a society that seemingly needs no big entrepreneurs, only organic farmers, modest artists, and mild naturalists? A capitalist society is, in a certain sense, a rather *wild* society! We need some degree of wildness, but not exactly of the capitalist sort. The usual utopian green societies seem so sober and tame. We shall need enthusiasts of the extravagant, the luxurious, and the big—but they must not dominate.

In short, I do not envisage the *necessity* of any sudden, dramatic turnaround in the sociopolitical realm when I envisage things from the limited point of view of *overcoming the still-increasing ecological crisis*. As mature human beings (I imagine that some of us are mature or on the way to becoming mature), we are also concerned about nonviolence and social justice. It

DEEP ECOLOGY AND THE FUTURE

is not necessary for me to say anything more definite at this point about these broad social and ethical issues. I do see the value, though, of expressing vague ideas concerning how one's own ideal green societies might look. A green society, in my terminology, is one that to some extent not only has solved the problem of reaching ecological sustainability, but has also ensured peace and a large measure of social justice. I do not see why so many people find reasons for despair. I am confident that human beings have what is demanded to turn things around and achieve green societies. This is how I, as a supporter of the deep ecology movement, feel today: impatient with the doomsday prophets and confident that we have a mission, however modest, in shaping a better future that is *not remote*.

Industrial Society, Postmodernity, and Ecological Sustainability

The Human Condition

It is a trait that belongs to human beings, and only human beings as far as we know, to try to make a kind of survey of their existence, to sort out what is of primary value and what they regard more or less with indifference; what they basically need and what are just whimsical wishes.

On their way to decreasing their own whimsicality and thoughtlessness, people in industrial societies like to learn about the problems that other people in other kinds of cultures have grappled with. This leads inevitably to rather broad and general talk, not just “small narratives”—a much-cherished term in deconstructive postmodernist literature. It leads to investigations that are immense in their breadth of perspective and to results that are always open to doubt and correction.

What follows reflects some thoughts by two sorts of human beings, those who for many years lived in a nonindustrial country and those who have spent many years together with tiny living creatures in grand mountains. Both are, in a sense, products of modern Western industrial societies—but not mere products. Because the reflections cover a vast terrain, they lack the elaboration and concreteness that we need in our attempts to understand and modify our behavior in concrete situations.

Comparing nonindustrial with industrial societies, including the fate of local communities, one sees that many of the nonindustrialized societies have shown a continuity and strength that the industrialized societies can-

This article was reprinted with permission from *Humboldt Journal of Social Relations* (Arcata, CA: Humboldt State University) 21 (1995): 131–46.

not hope to achieve, because industrial societies are unsustainable ecologically. Industrialized societies also seem unable to stop ethical erosion and increased criminality, including among the eight to sixteen age group.

Surveying the situation today, one sees also that the attraction of the industrial societies' *material* richness and technical acumen is overwhelming among the young people in nonindustrial societies. This situation is tragic for at least two reasons. First, it would be ecologically catastrophic to have five billion people behaving as people in the industrial societies behave. Second, it is unrealistic to expect that substantial increases in material affluence can be reached in nonindustrial societies without unacceptable levels of criminality and the erosion of feelings of fellowship and mutual dependence.

Using the term *modern* to relate to the emergence of the culture of the industrial countries, one may still hope that today's nonindustrial societies will make *a development from premodern to postmodern* cultures. The development of the industrial societies has brought humanity into a blind alley. The postmodern state of affairs implies satisfaction of the vital economic needs of the total population, but not affluence. The key slogan would be "Enough is enough." When vital economic needs are satisfied, there is *enough* in terms of material richness. Of course, there are other forms of richness—in principle, limitless richness.

The near future of the industrial countries, let us say the period 1995–2045, should emphasize reducing the use of energy, and of material production, until a level is reached that might be reached by the total human population without the danger of gigantic catastrophes. The next step would be to reach *full* ecological sustainability.

In the years after the Second World War, a mighty slogan asked for a vast increase (mostly material) in production. When production and productivity in the richest countries soared as never before, a new powerful slogan appeared: "Consume! Consume!" because of overproduction. Today, this reason is replaced by an appeal to consume in order to overcome unemployment. The notorious appeal of the retail analyst Victor Lebow promoted consumption to relieve overproduction, but otherwise it provides an amusing picture of the strange sort of economy prevalent in the highly industrialized countries. Lebow asserted, "Our enormously productive economy . . . demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we seek our spiritual satisfaction, our ego satisfaction, in consumption . . . we need things con-

sumed, burnt up, worn out, replaced, and discarded at an ever increasing rate" (Durning 1991).

The contribution to the ecological crisis by a minority of half a billion people has been such that an acceptable level of interference in the ecosystems by ten times as many people must be very much smaller per half billion. In the near future, "the total unecological product" created yearly by the industrial countries should be of an order such that multiplied by ten it would not point toward gigantic catastrophes. If we call the per capita sum total of unecological consequences by production for a given community or country ΣP_u and that of consumption ΣC_u and the number of people in the community or country N , the total unecological consequences of policies ΣU may be put into a form looking like an equation:

$$\Sigma U = (\Sigma P_u + \Sigma C_u) \times N$$

The sum U may represent a local community, a region, a country, or that of humanity in general.

For industrial societies, their ΣU_I should not be greater than 10 percent of the total ΣU_T . Without substantial progress toward that goal occurring each year in the industrial societies, this will be difficult to accomplish (see Daily and Ehrlich 1992).

As a firm supporter of the deep ecology movement, I hold that a decrease in consumption and a slow decrease in population will *not* necessarily result in a decrease in quality of life. There will be a transition period during which some people living according to the slogan "Enough is never enough" will have difficulties, but provided the downscaling is effectuated with a strong sense of justice, major uprisings may not occur.

It is an indication of narrow time perspective when people reject the idea of a slow decrease in population because there will be too many old, unproductive people compared to younger, productive ones. The undesired ratio will make itself felt only for a short transition period, and the perspective we need covers hundreds of years.

Disrespect of One's Own Nonindustrial Cultures

Since the Second World War, the general disrespect *in the West* of nonindustrial cultures has changed into a deep and serious respect among an increas-

ing minority. In the same period, disrespect in the nonindustrial cultures of *their* own culture seems to have increased formidably, especially among the young. Among the factors contributing to this are an equally formidable increase in tourism and smart sales campaigns.

Depreciation is often expressed in front of representatives of the West. In Beding and other Sherpa communities of Garwal Himalaya, monks had libraries of old Tibetan scripts, for example, prayers directed to Tseringma ("the long good life's mother"), a formidable 7,146-meter-high peak directly above the village. The villagers in the 1950s and 1960s showed reluctance to admit that they had such things. People hid such documents as shameful signs of backwardness. They were ashamed of their tradition of a cult of holy mountains going back many hundreds (or thousands?) of years. Their daily prayers to the mountain were beautifully written down and, until this century, regarded as treasures. How were scholars able to obtain such old documents? By buying them? No—by living among the families and showing *respect*. Then they could get the old scrolls as gifts. Otherwise, the scrolls might be destroyed.

Depreciation of one's own local or regional culture may be a worldwide phenomenon among young people, but nothing known in human history can be compared to what is happening in our time. Traditional cultures everywhere are under severe pressure—mostly with fatal results.

Disrespect of one's own culture includes disrespect of the land. In the Beding area and other Sherpa areas of Nepal, the forest was respected and no living trees were cut down for fuel. Each tree was looked upon as something that had its own life, its own interest, its own dignity. With the breakdown of customs, this deep ecology attitude vanished. The enormous mountaineering expeditions increased the mobility of the Sherpas who were hired in the thousands to carry water—and often to heat it using wood—for daily hot showers for the sahibs. These practices generated completely different attitudes toward mountains and forests: disrespect of holiness, purely instrumental attitudes toward "timber," "wood," and "fuel." Deforestation above 9,000 feet began in earnest. Without trees as cover, erosion started on a grand scale. Now practically nothing is left. Nepal became an "export country": exporting hundreds of millions of tons of soil to India. The rivers brought much of the soil to the giant Indian dams built largely through misguided efforts at "development," filling them with silt.

With no cultural restraints and little Western scientific knowledge, the destruction of Nepal gradually reached gigantic proportions. Immigration from the countryside to the city of Kathmandu accelerated. The young were not willing to walk all day for fuel. They would rather live without dignity in Kathmandu.

A young, exceptionally gifted Sherpa who had been with many expeditions got the opportunity to start a sports shop in Canada, but he returned to his own country after a while. He expressed in a few words his reason for going back: "Here we enjoy peace with ourselves." So many of the people he met on expeditions, and in Canada evidently, had no peace within themselves. They wished to be different from what they were; they worked hard to develop, achieve, succeed, and be better. They could not let time flow. Unfortunately, very few young people have the necessary faculty of *independent* judgment, nor do they have the opportunity to compare Western quality of life with their own in their "poor" countries. I am not referring here to the half billion people in nonindustrial countries who are desperately poor, who lack the most basic means to live a decent life.

Western Belief That We Project Personal Traits into Natural Objects

In traditional, nonindustrial societies we find more and stronger "personification" of natural forces and nonhuman living beings. The tendency to personify is often said to be "archaic," meaning that it precedes the great religions and cultures. The term *anthropomorphism* is often used in a pejorative sense for the erroneous attribution of specifically human traits to entities that are not human, or not even capable of sense experience. Before starting to drink beer together, the Sherpas threw a little beer in the direction of Tseringma—beer for *her*.

If a big mountain precipice may be spontaneously experienced as dark and evil, it *is*, in an important sense, dark and evil. If this experience motivates us in the West to throw a stone at the mountain as a punishment for being evil, we have succumbed to a mistake. In a nonindustrial culture throwing beer or a stone is meaningful—or was meaningful—but not within *our* conceptual framework.

Animals, plants, and some nonliving things may be experienced as evil

or good. They may be experienced as arrogant, proud, insolent, self-dominating or humble, sheepish, crestfallen, and so on. Education in industrial countries is strongly centered on a subject/object cleavage: some traits of animals are real and objective attributes, others are said to be *projected* onto the animals. They are merely subjective.

In practical life, application of the distinction is a plus, but it downplays spontaneous experience with its richness, intensity, and depth. It favors thinking in terms of abstract relations and structures of reality, not in terms of content. When we depart and decide to meet again on a mountain, the mountain must be defined in terms of our society and culture, defined as an *object* we have *in common*. This, however, does not identify the mountain as an object "in itself."

Our vast abstractions are momentous cultural achievements specific to Western culture. Contemporary mathematical physics is an example. Here the link to spontaneous experience is extremely indirect and spotty, but strong because of the high level of mathematical deduction. Because of its severe limitation of modeling abstract structure, it expresses an intercultural type of knowledge, that is, intercultural if one does not rely on popularization but sticks to the severe mathematical form of what is asserted. In that case, the cultural background disappears! The equations are intercultural, but any *interpretations* in terms we are acquainted with in our daily life depend on specific cultures. Communication among experts is compatible with deep cultural differences among the participants.

There is no physical *world* with specifically physical *content*. There is a reality, the content of which we have direct contact with only through and in our spontaneous experiences. It is a reality of infinite richness.

No dichotomies of fundamental character seem adequate to describe it. Distinctions between physical and mental "worlds," or between subjective and objective worlds, are not adequate for describing reality. The philosophical reaction against taking the latter distinction as fundamental has increased in strength since the 1890s. Should we, mused A. N. Whitehead, stop admiring the beauty of a rose and instead admire the poet who admirably sings about it? Would not that be reasonable if the rose *in itself* is neither beautiful nor ugly? Is there "objectivity" only in electrons and similar colorless items? The beauty of the rose itself is spontaneously experienced and is as real as anything can be.

Western Schools and European Unity

The school systems of the industrial states are all adapted to the common, very special way of life in those states. Unawareness of this makes difficult reforms that would widen the perspective: schools remain provincial.

A main concern in schools that try out less one-sided perspectives is for the future of the children: how will they get jobs when their knowledge does not fit in with the established order? If the parents are economically rich, they can help the young get along in the unique and strange world of the industrial-growth societies in spite of their “far out” schooling—but otherwise the young tend to get into trouble. Therefore, educators often give up the most radical sorts of reforms.

Let us look at some of the curricula children now have to learn, starting with mathematics. Mathematical instruction today is completely Westernized and utilitarian, and it reflects the typical Western emphasis on proof. There is no trace of Chinese or Indian old mathematical culture. Little is taught about bold mathematical conjectures such as those in number theory; little is taught about endless fractions and orders of the infinite. With more adequate education in mathematics, children are encouraged to love the subject and tend to continue to relish it after leaving school. Mathematics is an ecologically very innocent hobby! Masses of excellent paper are wasted every day in schools, but some could be used to build geometrically interesting buildings.

Proper mathematics should, of course, not lack instruction about the existence of proofs and, in later years, of axiomatic or formal systems in general—but only basic notions, “axiomatic thinking,” not complicated applications. Perhaps three or four different proofs of the Pythagorean Theorem and a couple of other simple proofs would suffice to help students understand the miracle of proofs and—later—allow them grasp the *essentials* of deductive systems.

What about chemistry? Children love to play with (more or less) innocent chemicals. Let them see miracles, such as how two “colorless” liquids, brought together, may create fantastic colors! In organic chemistry they may learn about the long series, like CH_4 , C_2H_5 , C_3H_8 , . . . , and enjoy building molecules. Isomers of C_4H_{10} ! Very inexpensive and elegant colored tools are available today. They may learn about colors used by Rem-

brandt and others. Children appreciate crystals, and with a magnifying glass they may enjoy learning about some of the most beautiful forms. They can combine this with some mineralogy and petrology: the joy of finding stones, learning to enjoy natural things of which there are enough for all. At the university level, there should be an opportunity to go deeply into modern, theoretical “hard” chemistry.

Let me now mention history. A main guideline is to focus on the local (bioregional) and the global, with less emphasis on the national. There should be more about interlocal movements, less about internationalism, more emphasis on cultural diversity and on the Fourth World.

The distinction between “global” and “international” is important for many reasons. One of them is that few nations have much power, while the great global corporations have more than most nations, shaping economic life everywhere.

It has now been more than half a century since the school textbooks of the Scandinavian countries were “adjusted” to be compatible with one another. Until then, a war between them was, as a matter of habit, described systematically, with each participant reporting and ethically judging what happened according to that participant’s own extremely one-sided propaganda.

There is no hope of establishing peaceful, green societies as long as conflicts are described in a way that fosters prejudice and hatred. Equally pernicious is the underestimation of social and political calamities attributable to the destruction of one’s own land. The tentative *history* of ecological calamities is now available, and the material should be integrated into school textbooks (Ponting 1992).

Until recently “world history” for children—at least in Europe—has been atrociously anthropocentric. History of the planet, and history of life, should be in focus, as part of the global perspective. History of bioregions takes care of the local perspective.

Social and cultural anthropology cannot be completely absorbed into textbooks of history, but there is room for some material on these subjects. The outlook of economic anthropology is relevant: children should know that the economic system they are part of in the West is an extremely special kind. In the long view, general cultural and, especially, religious institutions have been stronger in comparison to the economic. In the industrial

countries the history of capitalism since the fifteenth century tells us a lot about our successes and our failures.

Here is not the place to go through the curriculum of schools and colleges. Wide differences of approach are needed, but the state of affairs today is deplorable: pupils aged six to sixteen (what I call children herein) in the rich industrial societies are, on the whole, imbued with ways of thinking adapted to a kind of society that hopefully will disappear in their own lifetime. As has always been the case, though, schools mirror society, and the transition to green societies must occur simultaneously at many sections of the long frontier of change.

When our children and grandchildren learn history in the schools of the twenty-first century, they may be confronted with sentences like the following: "The productivity of industry and agriculture increased exponentially in the richest industrial countries in the last half of the twentieth century. A wild consumerism not only threatened the conditions of life on our planet but was accompanied by an impoverishment of relations between people, a degradation of fellowship, and an increase of asocial attitudes. (New phenomenon: criminal careers for children between eight and sixteen years of age.) The economy of a country was not expected to adapt to its culture, but the culture to the economy."

People in the Third World do not seem to realize that the consumerism of the West is doomed. They do not have the chance to see that there is no future for the kind of life they observe the tourists living. Here is one of the great challenges in the years to come. What can be done to change the picture those people have of our common future? What can be done to assist a transition from the preindustrial to the postindustrial?

A combined focus on the local and the global is impossible under conditions of *economic* globalization, as the latter term is now used. "Economic globalization" is to some extent misleading. A better term might be "globalization of the four freedoms," referring to the so-called four freedoms of the Treaty of Rome, which was the basis for the European Common Market and *is still* at the core of the present-day European Union. The document's style of globalization implies successive expansion of its "four freedoms" until it also covers trade among the three giants, the European Union, the United States (and Canada), and Japan, and reluctantly over the rest of the globe. The term *four freedoms* refers to free (duty-free) crossing of goods and

materials through borders, free flow of services, freedom to compete for jobs anywhere (people), and freedom of capital to flow across any borders. The four freedoms *imply four prohibitions*, the violation of which will be punished by the authorities, namely strong, adequate *protection* for social, medical, ecological, or other reasons of cultural relevance, against import of certain goods or services, or against certain kinds of flow of foreign capital into a local, regional, or any other limited area, for example, the arctic coast of Norway.

Representatives of the EU tempt politicians and the public in the four new countries that now (1994) have expressed a wish to join by emphasizing transition periods with less-strict negative rules. In the long run, though, the overall tendency is to prepare for tighter and tighter economic unions—like that of the United States of America. The outlook is a world of *consumers* getting more products more cheaply than ever before through wider mobility. The only diversity of cultures here is one compatible with the supreme rules of a free world market!

Norway is the only Nordic country with family farms, and there is a definite agriculture, not just agribusiness. To protect this culture, and also to make it economically possible for its practitioners to survive, Norway “subsidizes” her agriculture. That is, there is a *transfer of income* so that the farmers can offer the public their products at low prices, prices that are not high enough to cover farm expenses. In an important sense, it is not the farmer, but the public that is subsidized, and also protected against further increases of urbanized youth. The public has to pay more for milk, bread, and other agricultural commodities than it would on the *world market*. We are asked to destroy the farm culture in favor of city culture.

The Norwegian market today is not completely a part of the cheap world market. Nevertheless, what Norwegians pay for their food is absurdly little, usually about 15 percent of their average income. That is, expenses for transport (private car, etc.) and other expenses are much greater. We must expect that in future green societies food calculated as a percentage of income will cost us substantially more than it does today. One may say, in general, that the cost today to satisfy vital *needs* is, on the average, only a small fraction of the cost of satisfying *wants*—or to be more exact, a small fraction of the cost of satisfying wants that are “normal” in the rich

industrial countries. The economy of Norway is capitalist, but closer to a mixed economy than that of, say, the United States.

One may, very roughly, class as a mixed economy an economic system with a free market within a framework that permits fairly strong rules governing the operation of the market. Such rules make Norway, for example, capable of protecting certain activities—agricultural, industrial, or others—from foreign competition and, ultimately, from the world market. The government has recently said yes to GATT, and this turns Norway into a more streamlined capitalist country, distancing herself from the ideals of a mixed economy. (Unhappily, the term *mixed economy* is sometimes used for any capitalist system having one or more rules protecting the environment. This makes the United States and every other industrial state mixed-economy countries. It is hoped that this erosion of the terminology will not continue.)

What is the current status of efforts to promote *green* economies in relation to all this? If a country can sell products more cheaply than certain others because it has a higher degree of irresponsible ecological policy, the four freedoms prevent the more responsible countries from keeping the products out. Consumers cannot be expected to keep track of the ecological atrocities in other countries. It is therefore unlikely that a green economy, at least in the near future, will suddenly be established in a single country. In the short run, countries with the most irresponsible policies will profit from export, but in the long run, other states will presumably introduce economic sanctions in favor of their own exports.

From the point of view of the Treaty of Rome, the individuality, or “personality,” of local economic activity cannot be ideal because of the lack of fierce competition and the failure to emphasize maximization of profits. The machinery of economic activity as conceived by supporters of the Treaty of Rome is taken to be universalizable, common to all possible cultures. That is, the introduction may always take place, and it will change the culture. This way of describing the treaty is, however, too simple for serious debate. Minor differences in an economic system may be tolerated, even supported—for example, because a difference favors tourism or because it belongs to simple cultural traits of which the population is particularly proud.

At the moment, applicants for membership in the European Union

will, as mentioned, be permitted to continue *for a time* particular activities inconsistent with the Treaty of Rome. The time is mostly longer than the interval between political elections. This makes it easier for particular governments to join the EU because many negative and controversial consequences of membership will not manifest themselves until after the government's time in power.

In concluding, I wish to admit that centralization of power today is furthered by more benevolent people than ever before—people and institutions interested in fostering more trade, in letting people consume and travel more than ever.

Until recently, it was widely held that capitalist competition leads to war. Today it may lead instead to systems of tacit and explicit agreement between corporations in order to keep this system from failing. In Japan and the United States, it is now widely held that wars of trade between the two giants are not, in the long run, in the interest of industry. It would be better, it is said, for both to have a free market comprising Japan, the United States, and Europe, but with mutual agreements between leaders of the corporations aimed at avoiding undesirable kinds of competition. We might end up with a culture, including education, that is adapted to the world market rather than the other way around.

Because of the central idea of “the more trade the better,” combined with a vastly increased mobility of people and goods, ecological problems can only increase.

Our Way Is Back to Sustainability, Not to Old Forms of Society

It is tempting to see “us”—members of the rich industrial countries—as “moderns,” more or less disregarding nine-tenths of humanity. They also live today, they belong to the contemporary scene but are considered relics of the past.

As to the exact delimitation of modernity in terms of age, one proposal is to think of the time from the European Renaissance to the present; another proposal is to include only the period from the start of the Industrial Revolution, covering about two centuries at least. Not without some arrogance, many of us now look forward to the creation of “postindustrial” societies.

The reflections that follow are colored by personal experiences. They result from an urge to examine industrial society in the light of values established in nonindustrial, “traditional” societies, and in light of life ways that are, ecologically, fully sustainable.¹ Such has been the life of human beings for long periods of time. Alaska was inhabited for thousands of years by people with ecologically sustainable, diverse cultures. In Norway, people followed the retreat of the ice 8,000 years ago. As soon as reindeer could prosper, human beings prospered.

Ecological sustainability was only one characteristic of traditional societies, and it did to some extent reflect the small numbers of people. Many of those societies we would class as ecologically unsustainable if they had had millions of members. The reindeer-based, very loose societies were dependent to some extent upon the ratio between the number of reindeer and the number of human beings.

Of course, there is “no way back” in general, but it is important to remember that global unsustainability is something very new and that for a wide variety of stable cultures our planet was a tremendously big, rich, eminently hospitable and benign world. Difficulties had to arise only when human beings were pressed away by other human beings from the areas where life was easiest, or at least not a greater challenge than desired.

It is to be hoped that an ever-increasing minority will view unsustainability as an undignified, stupid—if not plainly ridiculous—state of affairs. It is also hoped that an increasing minority will express this attitude with increasing boldness—but without arrogance, since few activists can avoid making use of the facilities offered in the industrial societies.

In short, there is no way back to societies that belong to the past, but there is a way back to ecological sustainability. In fact, there is not just one way but many ways resulting in widely different sustainable cultures. Valuable contributions to the study of these ways are not lacking, but they are, on the whole, unknown to the public. Unavoidably, large segments of the public have the feeling that “environmentalists” want to turn back time. When some of them announce “Back to the Pleistocene!” that suspicion is well founded. The indication of ways to go does not, of course, amount to elaborate plans and blueprints. Such absence of detail has been the rule, not the exception, in all new major human undertakings. It has never stopped those who have the proper motivation to work for change.

There are not only rough plans of how to solve some of the most serious ecological problems; there are even tentative—very tentative—estimates of the costs in money and labor. A dollar estimate was published in *State of the World*, 1988 (see Brown and Wolf 1988). An updated 1994 rough estimate could be—let us say—\$250 billion annually. Here I shall only mention some theoretical aspects of such an estimate.

Owing to the current lack of institutional infrastructure necessary to use such a large sum rationally, the \$250 billion per year expenditure may not be reached until ten years from now, that is, from 2005 onward. The sum, both in money *and in work*, would be paid almost entirely by the rich countries. The vast activity *within* the rich countries *in preparation for* the undertaking would demand workers in great numbers with a great variety of skills. Given present levels of unemployment, there is no doubt that the necessary number could not be mobilized. Production, in the wide sense of theoretical economics, would increase. It would be registered as increased gross domestic product (GDP).

Carrying through the undertaking, mostly inside nonindustrial countries by people in those countries, but in close cooperation with people from the industrial countries, would be accomplished only through substantial mobilization of people and capital. As an example, consider reforestation. Today, several hundred million people lack fuel for cooking their food or cleaning their drinking water—the distance to the nearest wood is simply too far. Under such circumstances, planted trees are normally used for fuel as soon as they reach the size of bushes. Therefore, the people must be offered other kinds of fuel for at least twenty years. Even then, a great number of honest people must act as protectors of the growing plants. In short, reforestation is a *socially* complex, labor-intensive undertaking, and the economics of both the industrial and nonindustrial countries would be highly stimulated.

Inevitably the consumption, not the production, of the rich countries would decrease. The increased consumption would be in the nonindustrial countries and would not interfere with the increase of GDP in rich countries. GDP is *not* a measure of domestic consumption, as is often thought to be the case. If Norway produces a thousand tiny hydroelectric plants for use in poor countries, it decreases its unemployment and reduces poverty among others.

Global reforestation will not, of course, mean complete reforestation, but reforestation insofar as it both ensures ecological sustainability and meets the vital needs of the people. As already mentioned, however, not much could be done in the next few years even if money and a work force were available. It is not like mobilizing in times of war in a country where military institutions have been prepared well in advance. Large-scale rational and ethically responsible reforestation is a new sort of undertaking that requires highly educated, corruption-resistant people. It will take a long time. One generation? Three generations? Nobody knows. There is, however, no “point of no return.” Compared to the investment of life, work, and money in a great war, the investment needed to overcome the ecological crisis is very small. Moreover, the work of a determined minority could get the work started in earnest.

Sustainable Development and Deep Ecology

Nonindustrial cultures insist upon the meaningfulness of life. A large part of their mental and physical energy is devoted to religious and other practices supporting this belief. Behavior must conform to it. This pressure toward conformity is often immense, and it is sometimes resented by the young.

The rich, industrial cultures make it appear possible to skip the labors that support the meaningfulness of life. What is left of nonindustrial cultures today is threatened by the nearly irresistible lure of the “free,” “unconcerned” way of life manifested by tourists, economic development experts, and other visitors from rich nations. To the young, these strange beings seem to have been able to get rich while remaining free of onerous social duties. The cultural cost of economic growth within rich nations is rarely considered. The ecological cost is incalculable.

If one shifts from being an observer of cultures to being a student of the history of ideas, one may trace a line of thinking that roughly suggests a movement from the ideal of “progress” to that of “development” and “economic growth,” and from these ideas to that of “unsustainable development.” Some of us hope for farther steps along this line, from “sustainable development” to “ecological development” to long-range “ecosophical development”—with an emphasis on the need for wisdom (*sophia*) as much as on the need for science and technology. If this line is to be followed, it will entail our studying the loss of beliefs and cultural identities now oc-

This article was excerpted from *Ethics of Environment and Development: Global Challenge, International Response*, edited by R. J. Engel and J. G. Engel. Tucson: University of Arizona Press (1990): 87–96. Reprinted with permission from John Wiley & Sons Limited.

curing because of the tremendous impact of the economy and technology of the big, powerful, rich industrial societies. As members of these societies, we are largely responsible for this impact and the resulting cultural shock. Any model of ecologically sustainable development must suggest ways to avoid furthering the thoughtless destruction of cultures, or the dissemination of the belief in a glorious, meaningless life.

The above goal may be expressed in shorter form by asking for ecosophically sustainable development. Every decision in every country in the world has an ecosophical aspect. The centers of philosophical and religious thinking have to be mobilized as energetically as the centers of ecological, economic, and technological learning.

The term *developing country* should either be avoided or applied to rich countries as well as to poor, for practically every country today is developing in a way that is ecologically unsustainable. It ought to be a goal of the rich countries to change policies in such a way that they eventually reach a level of sustainability of development.

Because of the wide range of cultures deeply affected by unsustainability, the philosophical and religious underpinning of changes toward sustainability must differ. There must be a marked pluralism of ultimate conceptions of meaningfulness. I place these philosophical and religious conceptions on "level 1" of any development systematization. From this basic level of norms one should be able to derive ecosophically important views furnishing guidelines for change. The important thing is to recognize that if we hope for rich cultural diversity on Earth in the future, there can be no completely general blueprint for development. Development must differ to assure cultural continuity. Cultures will not be lost along the way, as they are today, if we insist on the relevance of level-1 norms and if concrete plans are tested to make sure proposed changes allow for the persistence of deep cultural diversity on Earth.

Deep Ecology and the World Conservation Strategy

The ecophilosophically important general views I discuss in what follows are characteristic of a great number of active people from many nations, and they are open to different articulations. The set of tentative formulations I shall use, the so-called deep ecology platform,¹ comprises eight points:

1. The flourishing of human and nonhuman beings has value in itself. The value of nonhuman beings is independent of their usefulness to human beings.
2. Richness of kinds of living beings has value in itself.
3. Human beings have no right to reduce this richness except to satisfy vital human needs.
4. The flourishing of human life is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease.
5. Current human interference with the nonhuman world is excessive, and the situation is rapidly worsening.
6. Policies must be changed in view of points 1–5. These policies affect basic economic, technological, and ideological structures. The resulting state of human affairs will be greatly different from the present.
7. The appreciation of a high quality of life will supersede that of a high standard of life.
8. Those who accept the foregoing points have an obligation to try to contribute directly to the implementation of necessary changes.

Let me compare the deep ecology platform to the view of sustainable development that has been formulated in the *World Conservation Strategy* (IUCN 1980). Although it is difficult, and for present purposes unnecessary, to determine exactly the nature of agreements and disagreements between the *World Conservation Strategy* (WCS) and the deep ecology platform, this analysis suggests areas of tension. Three quotes from the exceptionally careful formulations in chapter 1 of the WCS point to an initial difference.

1. The term *development* is defined in the WCS as “the modification of the biosphere and the application of human . . . living and non-living resources to satisfy human needs and improve the quality of human life.”
2. Development’s close relation to the term *conservation* is made clear in the definition of conservation as “the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations.”
3. The term *sustainable* is not defined, but that it is meant to imply the

long-term support of life on Earth is clear from the two opening sentences of chapter 1: "Earth is the only place in the universe known to sustain life. Yet human activities are progressively reducing the planet's life-supporting capacity at a time when rising human numbers and consumption are making increasingly heavy demands on it."

These quotes reveal a significant difference between the deep ecology platform and the WCS view of development in their bases for valuing nonhuman life. The question arises of whether nonhuman life is, in the WCS, of intrinsic or of only utilitarian value.

It is true that expressed concern for nonhuman life *for its own sake* is not completely absent from the WCS. In the third quotation above, "the planet's life-supporting capacity" is used, not the "planet's human-supporting capacity," and when "a new environmental ethics" is asked for, also in chapter 1, this may plausibly be interpreted as referring to an ethics wherein nonhuman life is conserved for its own sake. Furthermore, the title World Conservation Strategy suggests something wider than conservation solely for the sake of human beings.

Nevertheless, the WCS leaves little doubt that the ultimate concern is for human beings: "Conservation, like development, is for people" (IUCN 1980: chap. 1). In the second WCS quotation above, the reference to generations, taken in isolation, may be interpreted to cover all living beings, but that is not possible when reading the quotation in context.

In contrast, the deep ecology platform makes it clear that nonhuman life is valued independently of human life. Moreover, the deep ecology formulation expressly supports a policy of noninterference with continuing evolution, for example, the evolution of mammals demanding vast territory, and of highly different landscapes with their special organisms.

From the narrow definition of development in the WCS, it follows that satisfaction of nonhuman needs and the improvement of the life quality of any nonhuman being cannot possibly be a part of development in a *direct* way. There is, however, at least one possibility for making the above three quotations on development compatible with points 1 and 2 of the deep ecology platform. This possibility leans heavily on two hypotheses: first, that mature human beings believe at least implicitly in the intrinsic value of nonhuman life and in the diversity of life, and second, that they accordingly experience a strong need to oppose actions and policies incompatible with these beliefs. If

the two hypotheses are accepted, one may assert that there is a human need to protect nature for its own sake. This protection of the full richness and diversity of nonhuman life on Earth for its own sake acquires the status of usefulness for human beings and is fully compatible with important forms of utilitarianism. I personally accept the hypotheses when “maturity” is taken in the strong sense of all-sided (German *allseitige*) maturity.

This admission of a utilitarianism of sorts may be important for those supporters of the deep ecology movement who tend to conceive of themselves as utilitarians and who do not feel at home with valuations seemingly “totally independent” of human valuation.

The firm acceptance of the two first points of the deep ecology platform is of considerable social and political importance. As long as major efforts to protect, and to restore, the richness and diversity of life on Earth are supported solely on the basis of human need narrowly defined, they will be piecemeal, not holistic. They will not concern whole ecosystems and will not be carried out with maximal perspective in time and space. Without a respect for the ecosphere as a whole, efforts will continue to be focused on special spectacular items—pandas, wolves, acid rain, the ozone layer, carbon dioxide. Respect for the welfare of all facilitates acceptance of long-range efforts, including changes within human societies. Ecologically sustainable development will automatically refer to the whole planet and not to ecologically arbitrary boundaries of nations.

Another way of conceptually closing the gap between the two documents is to look at the meaning of “life” and “living.” When a campaign to protect a river against so-called development is launched, the slogan “Let the river live” does not concern just the water of the river, but a somewhat vaguely conceived ecosystem as a whole—a “living whole.” In some cases, it includes people who live along the river or use the river in an ecologically appropriate way. It is clear that most campaigners for the protection of the river against major interference feel that the interference reduces the meaning of their own lives. People have a vital need for meaning when they try to protect. We are again led to a concept of sustainable development for the satisfaction of human needs that also protects the planet for its own sake. The Gaia hypothesis has shown its value not only as a working hypothesis, but also as a way for people within cultures imbued with Western science to experience the Earth as something living, as alive in a broad sense.

Rights and Vital Needs

Point 3 of the deep ecology platform, that human beings have no right to reduce the richness and diversity of life on Earth except to satisfy vital human needs, engenders controversy about the terms *rights* and *needs*. Philosophers who are dubious about the notion of “right” propose the phrase “human beings should not” instead of “human beings do not have the right to.” However, the postulation of certain “human rights” has a positive influence today. As long as the term is used in this connection, it might also be used to refer to nonhuman beings. Some say that human beings can have rights because they have obligations but that animals, having no obligations, have no rights. Such a limitation of the meaning of *rights* is not found in our everyday language, however, as when we speak of the rights of lunatics or the rights of small children.

Indeed, formal “declarations of rights of animals” are being codified. A Norwegian version was signed by thousands of people. A pilot study of answers to questions about whether animals and plants have rights revealed a great majority of positive views (Naess 1987 [chapter 18 of this volume]). Not included in the Eight Points, but quite expressive of opinions among supporters of the deep ecology movement, is the following formulation: “Every living being has the right to live and flourish.”

Strictly speaking, however, acceptance of point 3 does not depend on the acceptance of the existence of rights of human beings and nonhuman beings. If a mother says to her son, “You have no right to prevent your little sister from eating all her birthday cake,” this does not imply any doctrine of rights of sisters to eat. There is an important everyday usage of the expression “no right to” that has to do with injustice and related phenomena, and the same holds of “no right to” in the formulation of point 3.

In the area of needs, point 3 is not meant to imply that there should be no extravagance. It does not, for example, condemn the extraordinary richness of occasional feasts within nonindustrial cultures. Nor does it necessarily imply that the few people for whom producing a lot of children is a deep and intense joy should be discouraged. When there is already a vast population of human beings, however, an increase has detrimental consequences for both human beings and nonhuman beings.

The intention of using the strong term *vital need* is to announce a limit

of justifiable interference. Not every demand on the market proves that there is a corresponding need. Hundreds of millions of people have unsatisfied vital needs of the most pressing kinds; hundreds of millions of others are wasting the resources of the planet for purposes generally considered trifling and unworthy (although more or less unavoidable as things are). The gigantic gross national products of the rich industrialized states are a measure of pollution and waste, with doubtful gains for human life quality. As early as the 1960s, GNP was being dubbed the Gross National Pollution. Unfortunately, an increase in GNP does not guarantee an increase in the satisfaction of vital needs, a fact painfully obvious in poor countries where increases so far have had little effect on the desperately poor.

Where to draw the limit between vital and nonvital is a question that must be related to local, regional, and national particularities. Even then, a certain area of disagreement must be taken as normal.

The Population Factor

What is the carrying capacity of the Earth? This question has often been raised within a narrow frame of reference, with certain premises attached.

- Premise 1: Nature has no intrinsic value, so we need not have any animals or plants other than those that science or tradition tells us are useful for human beings. Carrying capacity therefore refers to carrying capacity for human beings, not carrying capacity for human and nonhuman beings.
- Premise 2: If there is a conflict between the human urge for space for more human settlements and the urge of other species for more territory, human beings have a priority and may even reduce the habitats of other life-forms.

Generally, it has also been taken for granted, with some justification, that new technologies will be discovered that will make increases of population manageable—for example, that there will be new “green (red, blue) revolutions” relying heavily on chemicals and on a transition from small-scale family agriculture to agribusiness.

Today, the old debate on “carrying capacity” seems rather odd. Now at stake are the freedom, richness, and diversity of life on this planet, includ-

ing the life quality and cultural diversity of human beings. Accordingly, for an increasing number of people, these two goals of life quality and cultural diversity are not in conflict.

Point 4 of the deep ecology platform contains two rather different propositions. The first, the positive effect of population decrease, is arguable from human history. The history of humanity is of a vast diversity of cultures with rather modest populations. Contemporary destruction of cultures does not proceed because of lack of human beings. Admittedly, this point is rather abstract, but it allows for an important long-range, global perspective: the goal of a human population small enough to avoid gigantic bureaucracies and insufferable crowding, with easy access to free nature and spacious room for every activity consistent with "Live and let live."

What the first proposition of point 4 does not mention is the transition period—how to go from, let us say, 8,000 million to substantially fewer people than there are today. Perhaps a transition period of a thousand years is needed, or perhaps much less. In any case, the long perspective is liberating for our minds and of practical importance for long-range planning of cities and areas of free nature. Furthermore, the prospect of a period with comparatively few small children should stimulate us to think how to make it possible for all child-loving adults to enjoy throughout their lives the company and care of small children. The dominance of the nuclear-family concept in rich countries largely excludes this.

The presentation of a vision of a stabilization-reduction-stabilization process rarely meets objections among deep ecology supporters, but it cannot be said to be a favorite theme. More old people and fewer children—this is an unpalatable thought! Moreover, how are people to be persuaded to limit child production? Cruelty and injustice must by all means be avoided.

Against the second proposition of point 4—that maintaining (and I am tempted to add, restoring) the richness and diversity of life on Earth require a significantly smaller population than 5,000 million—it may be posited that if ecologically responsible policies were substituted for the present nonresponsible ones, human interference would no longer be a problem, and therefore ecologically responsible policies rather than population decrease should be the focus. It seems to me, though, that this

process may prove to have as many obstacles as the reduction of the population. Very large populations create very large problems of freedom and organization. Centralization, giantism, and reduction of cultural diversity seem unavoidable features of life with a population of 5,000 million.

Plans for sustainable development often neglect the population issue. For example, this neglect compromises the adequacy of the Brundtland Report (United Nations 1987). The subject is a touchy one. Several assumptions and attitudes make responsible and energetic population policy difficult:

1. It is unreasonably assumed that because a humane and otherwise acceptable population reduction will take a long time, perhaps many centuries, it is unimportant to discuss or prepare for it.
2. As long as rich nations, which account for a large part of the degradation of life conditions on Earth, try to uphold their present population, they will have little credibility when they try to push poor nations toward rapid stabilization.
3. It is unreasonably presumed that the economy, and therefore the life quality, of rich nations will necessarily be adversely affected, at least in the period of transition to a lower population.
4. Global competition for power and military strength are considered inevitable and are thought to favor big populations.
5. It is unreasonably assumed that successful population reduction policies must make it difficult for people who deeply love children (for their own sake) to have four or more of them.

A good meal in the rich countries may require, directly and indirectly, about forty times as much energy as a first-rate dinner in a Third World country. This means that, for example, in Norway, with about 4.5 million people, the energy consumed when eating compares to that used by 160 million in a sustainable-energy economy. Cleaning operations in a rich country, because of the chemicals used, may result in eighty times as much pollution. Planetary stress would be more significantly reduced with one million fewer Norwegians than with one million fewer people in Calcutta.

A simple conclusion is that sustainable development of populations is a subject of importance in every country, and the greatest responsibility

rests with the richest. We must expect an increase of population during most of the twenty-first century. Subsequent reduction must be part of the scenario of sustainable future development. Policies based on expectations of great Earth-saving technological revolutions are irresponsible.

From points 1–5 of the platform it follows that those who support the deep ecology movement envisage not only deep political, social, and economic changes but also changes in personal lifestyle (point 6 of the platform). This decrease is inevitable if one follows the rule of universalizability: one cannot favor a standard-of-living level for oneself that depends on others not reaching that level.

The term *standard of living* is preferred to *material standard of living* because the latter suggests “spiritual standard of living” as the opposite. Although there need not necessarily be a shift toward spirituality when people attain a higher life quality combined with a stable or lower standard of living, the members of a community with good, intimate interpersonal relations may find that they use more time together in a relaxed way instead of “going shopping.” As Mother Teresa said privately when receiving the Nobel Prize: “It is not we but you who are poor.” We, the rich, are poor in deep satisfactions requiring simple means, the means being material, or spiritual, or perhaps beyond those somewhat arbitrary distinctions.

Sustainable Development, Cultural Diversity, and Social Justice

Any general view inspired by ecology includes reverence for the richness and diversity of human cultures and subcultures. Reverence for life implies it.

Traditional societies before the great cultural shock of the modern industrial era were always changing, but very slowly. The tremendous speed of change resulting from the influence of dominating industrial states has severely damaged cultural identity, self-reliance, and even self-respect in many cultures. The introduction of life-saving medicines and life-destroying weapons produced in the industrial countries has severely undercut the status of traditional leadership. Development tends to be conceived by the new leaders as a matter of increase in industrial activity and consumption.

The uncritical imitation of Western ways by Third World leaders now appears to be on the decrease. A growing trend is to look for the assistance

of traditional medicines, traditional ways of stabilizing population, traditional ecological insights, and in general to support customs that still have some authority and that clearly favor sustainable development, including sustainable cultural identity and a population proportional to resources.

Modern cultural and anthropological studies show that peoples of great material poverty nonetheless have maintained extremely rich cultural traditions. For example, the Sherpa village of Beding (Peding), 3,700 meters above sea level in Nepal, had only about 150 people in the 1970s. Statistics show that they were among the world's poorest. Nevertheless, their monastery was beautiful and well kept by their numerous monks and nuns. Much work had an artistic or religious significance. Feasts were sometimes of overwhelming richness and might go on for a week, starting before sunrise with music performed by the monks in honor of their great mountain Tseringma (Gauri Shankar, 7,149 meters high). Asked whether they would prefer the money from foreign expeditions to their unclimbed mountain, or the mountain preserved as it was, all forty-seven families cast their votes for protection. The central government of Nepal and the world's mountaineering associations, however, had no sympathy for such a strange idea: protection of a *mountain*? The government thought of "progress," the mountaineers of "conquests," and in the end the cultural needs of the community did not count (Naess 1979a: 13–16 [see chapter 35 in this volume]).

In the 1960s, a new generation of students of social and cultural anthropology and a number of critical researchers described nonindustrial cultures in such a way as to indicate that rich industrial societies had as much to learn from the nonindustrial as the other way around. Increased respect for nonindustrial cultures made itself felt at about the same time as the sudden internationalization of the ecology movement with nature as its focus. Aspects of culture were reexamined. While some anthropologists described Stone Age tribes so as to convey the message that their essential life quality could not be lower, others recognized that within these cultures some fundamental aspects of life quality were at a high level—such as economic security, absence of stressful work, and lots of time for meaningful togetherness bridging the generations (see, e.g., Sahlins 1972).

Among the many aspects of nonindustrial cultures that attracted attention were their relations to nature. Their relation to resources were mostly sustainable. One obvious reason was that moderate population and

adequate distance between tribes permitted sustainable development. The former view that traditional societies did not develop but were completely inert has been rejected as the result of an explosive increase of knowledge about the history of nonindustrial cultures.

Sustainable development today means development along the lines of each culture, not development along a common, centralized line. When we are faced with hungry children, however, humanitarian action is a priority whatever its relation to developmental plans and cultural invasion.

As has already been shown, ecology has a social justice side. The degree to which the life conditions of the planet are degraded per capita is highly dependent upon the social lifestyle of the individual. The lifestyle depends upon class, upon social stratification, and upon social services and protection received. The great future effort to reduce per capita degradation of conditions of life on Earth will demand discipline and changes of life habits. Moral resentment will attain dangerous intensities if there are not increases in levels of social justice at local, group, national, and international levels. If their lifestyle does not change, the rich power elites in poor countries will be judged to be ecological and ethical misfits. Violent reactions must be expected.

A world conservation strategy implies an acceptance of sustainable development. Such development is—or should be—explicit in the programs of green parties and the visions of green societies. The main relation between the deep ecology movement and the ideals of green societies is simple: the establishment of a green society *presupposes* the implementation of the necessary changes suggested in the deep ecology platform formulation. This declaration remains, however, on a rather abstract conceptual level. If it is posited as a goal that all human societies should be green, it is pertinent to ask, What about deep cultural and subcultural diversity? The blueprints of green societies have so far been the work of industrial Westerners, a rather specialized fragment of humanity. It is to be hoped, but it cannot be taken as a certainty, that development consistent with the guidelines of deep ecology movements admits and even encourages such a manifold.

From the very beginning, the international deep ecology movement has been nonviolent to a high degree, and general Gandhian viewpoints have been common among its supporters. The arms race, with all its grave consequences, is incompatible with a high level of sustainable develop-

ment. This has consequences not only for the programs of green parties, but for all realistic sustainable development plans.²

The broadness and deepness of sustainability guidelines demand a global perspective. The rich countries are now rightly expected to see themselves as developing. Their current lack of sustainability is grave, and the challenge is formidable. For the poor countries, the outlook is different. They may avoid the one-sided industrial phase with its consumerism and enter a green postindustrial stage at a higher level of sustainability. For both rich and poor, the obstacles are formidable, and all sorts of conflicts, including wars, may occur along the road. Nevertheless, long-range global sustainability as a central concern may also bring societies together in a more peaceful and joyful endeavor than ever before.

Today there are few or no communities, societies, or cultures that show clear long-range sustainability, which I define as long-range ecological sustainability combined with a satisfactory life quality. A development or general pattern of change within and among communities, societies, or cultures is ecologically sustainable if it is compatible with restoring and maintaining the richness and diversity of planetary life (in the broadest sense). What is "satisfactory"? We scarcely need to quarrel about it as long as we agree that hundreds of millions of children live at an unsatisfactory level.

Present or future research will not be able to point unambiguously to any one particular way to begin such a development. In practice, we shall have to fight obviously unsustainable kinds of development for a long time while implementing changes that lead toward sustainable development. The industrial countries will be developing countries during this phase, but unsustainable to a diminishing degree. Yet, from the point of view of the deep ecology movement, the victory of the notion of "sustainable development" over the postwar notion of "economic development" or "economic growth" and the simplistic "development" is itself the sign of an awakening from ecological slumber and should be greeted with joy and expectation.

Notes

Foreword

1. A concept of QsIA-synonymy is introduced in the first part of this earlier work. The concept is also introduced in the present study (chapter 7). Let it suffice for now to say that two terms are QsIA-synonymous for a definite person and with respect to a definite text if that person answers affirmatively to a question of the following form: If one term were to be exchanged for the other in this text, would the meaning of the text be the same?

Unfortunately, my use of the word «synonymy» as an element in the definiendum has suggested that I believe that the answers to certain crude questionnaires will solve *the* problem of synonymy, or that the concept of QsIA-synonymy is proposed as the operational meaning of the term «synonymy». Perhaps the best way to explain my purpose is to say that, just as one may apply different tests to an ability or a disposition, so one may apply different tests to something traditionally called «synonymy», and the concept of QsIA-synonymy is merely one test among others.

Chapter I: Basic Terms

1. The term «marginal reference» has in this work a meaning not far from that of «qualifying phrase» in everyday English.
2. It is tempting to interpret sentences of the form ««a» is synonymous with «b»» as expressions of universal indiscriminate synonymy, since no exceptions are mentioned and no qualifications are made. Such an interpretation is, however, usually implausible and transintentional (cf. chapter 2, section 2).
3. The use of «a» for «either-or» in formulas is distinguished from the use of «a» for sentences by its placement outside parentheses.
4. For details about axioms adopted for 'synonymy', see chapter 2, section 6.

NOTES TO PAGES 49–97

5. In a formulation ««a» means b», we call «a» the interpretandum expression and «b» the interpretans expression.
6. We use, in this classification of interpretations, words that are too vague to be admitted in theorems concerning the determination of the choice of interpretations.
7. In Norwegian, «*mannlige*»; «male» in English.
8. The phrase «*that food ---*» in Skinner's item 2) seems to refer to something definite as the cause of a process, whereas «I am hungry» is more likely to refer to a state of affairs, one of the symptoms of which might be indicated by a saying such as his item 2).
9. «Incomparability» is introduced as a term in chapter 2, section 7.
10. The introduction of concepts of synonymy has been postponed to chapter 7. The above assertions about the existence of synonymic alternatives common to «a» and «b» are anticipatory.
11. That is, stuff capable of being adequately learned by using one's memory.
12. Further precisizations of «reading» would probably show that a usage common among students is here presupposed known: «studying for examinations by reading».
13. The two last sentences are good examples of sentences sufficiently precise for certain, rather limited purposes, but too ambiguous to contribute, for example, to a statistical description of denotata fluctuations. What are the criteria of «being on the way from Oslo to Bergen»? Have they to do with plans for future movement along tracks, or is the mere location on the tracks leading to Bergen a sufficient criterion? Is «train» to be interpreted so as to include motor buses on tracks? The list could go on. To make the sentences useful for a statistical survey, we would have to introduce detailed criteria by suitable conventions of terminology.

Chapter II: Basic Terms Continued

1. The simpler designation «receiver-ambiguous» is not used because it is needed to designate the ambiguity of an expression within the class or a class of receivers, if at least one receiver sometimes interprets the expression differently from at least one other receiver.
2. The question of comparison of terminologies is taken up in work that is in progress.
3. The terms are translations of the Norwegian legal terms «*generalpreventiv*» and «*spesialpreventiv*». The latter has to do with measures preventing an individual (the criminal offender) from repeating his crime.

Chapter III: Misinterpretation and Pseudoagreement

1. In the $\text{Syn}(T_1PS_1T_2QS_2)$ symbols in the following, «(1)» or any other symbol for a step in a discussion or for a sequence of steps, is put into the place of S_1 and S_2 . The symbols express in such cases, not a specific step or succession of steps in a specific discussion, but kinds of situations characterized by steps of certain kinds.
2. By «pseudoagreement, etc.» we mean «pseudoagreement or pseudodisagreement».
3. The Norwegian word for «thin», namely «*tynn*», permits this interpretation. In English the interpretation may be less plausible.

Chapter IV: Definitoid Statements

1. By «definitoid statement» is meant a sentence that for at least one plausible interpretation is intended to express an N-, Ds-, or R-definition (normative, descriptive, or real definition), or that at least shows symptoms of expressing such kinds of assertions or announcements.
2. «*Per definitionem*» is used as a synonym for «by normative definition».
3. We add the phrase about similarity because it would be unfruitful to limit our description to persons using *just* the concept 'normative definition' that has been introduced here.
4. This has the consequence that there can be no real definition of classes with no member—for example, *perpetuum mobile*. Maybe real definitions might just as well be defined in relation to connotation.
5. If something, a, is explained by something else, b, «a» is called the explanandum expression, and «b» the explanans expression.

Chapter V: Elementary Analysis

1. The reader may even be rather sure that Buckman did not use the above-mentioned expression, since it is in the third-person singular of the present tense.
2. If we ask, Does Russell intend to give an interpretative or a synonymic normative definition, our answer is likely to be more uncertain. Does Russell use sentences of the forms «--- means . . .» and «--- means the same as . . .» without distinction? Or does he distinguish, and use quotation marks for interpretans expressions?
3. «N-formulation» is an abbreviation for «formulation of a normative definition». «Ds-formulation» stands for «formulation of a descriptive definition».

4. If a definiens expression can be brought into the form «x is a K_1 and x is a K_2 and . . . , and x is a K_n », then the definitoid statement of which the definiens expression is a part is called a «complex definitoid statement».
5. The following sentences contain one of them. «As I would not be a *slave*, so I would not be a *master*. This expresses my idea of democracy. Whatever differs from this, to the extent of differences, is not democracy» (Lincoln 1905: 7: 389). In a message to Congress (1861), he also used the term once (cf. *Proceedings of the American Philosophical Society* 88: 366).
6. For a comparison of hypotheses about the Lincoln formula, see, e.g., the collection reproduced in McKeon (1951: 29, 30, 71, 124, 132, etc.).
7. If something is considered to be subsumable under a characterization defined as the conceptual characteristics of a concept, that something will be said to be a denotatum of that concept.
8. The case of T^2 being a designation is more complicated because, in that case, we have the sentence in which it occurs as a peculiar minimal context requiring special treatment.
9. The word «satisfy» is used in relation to definitoid formulations when we speak in general and do not distinguish normative from descriptive definitions or related synonymity hypotheses or announcements.
10. This sentence is added because, otherwise, the theorem would not assert any definite synonymities at all, all instances being of concepts 6, 7, etc.
11. We might call it a «multiple usage hypothesis with undifferentiated total field indication». In spite of the importance of such hypotheses and their close similarity to descriptive definitions, it is scarcely fruitful to widen the scope of descriptive definitions in order to include them.
12. This observation suggests that not every occurrence is of interest for the problem «Is occurrence no. x subsumable under the concept 'occurrence in conformity with the synonymity hypothesis no. y'?». That subclass of the total class of occurrences should be selected which is of special interest for solving this problem.
13. The authors of the SSRC bulletin include some remarks about the expression «as in», as it appears in their introductory note; see *SSRC Bulletin* 1946: 252.
14. The argument might be made more precise by stating explicitly which hypotheses the authors would have to accept as tenable if the definiens expression were assumed to be synonymous with the definiendum expression.
15. The quoted five-sense theorem is on the level of preciseness and specification found in dictionaries such as *Webster's New International Dictionary*. It is curious that *The Shorter Oxford English Dictionary* leaves out «history» in the

senses suggested by the expression «past events as an aggregate» as used in the *Webster's* article.

16. The examples are taken at random from an unpublished list of about 700 definitoid statements about «truth» and related words compiled by the author.

Chapter VI: Occurrence Analysis

1. The uncritical belief that meanings are easily found by just asking people what they mean or by merely reporting their learned definitions seems to us sufficiently undermined. It is time to take up another set of assumptions, namely that one can infer meanings by observation of use of terms without grave difficulties demanding patient research.
2. The term «excerpt analysis» would perhaps evoke more appropriate associations for lexicographers than the term «occurrence analysis».
3. In our discussions of definitoid statements, when no field of application is mentioned, then the present work is meant.
4. This is a rough way of introducing a technical term, but attempts to delimit more precisely a concept of 'occurrence implicate'—for example, in terms of syntax—have so far been without convincing results.
5. We do not exclude the possibility that the latter sentence is a contradiction in Vyshinsky's terminology. Whether it is or is not can only be decided on the basis of wider material, not on the basis of these implicates. Because of this uncertainty and dependence on further context, the inference should perhaps not be classed as an implicate and not be included in the occurrence implicate list.
6. A subsumption may be divided into the major premise of the subsumption, in which certain properties of certain things are described; the minor premise, in which the conceptual characteristics of the concepts are listed; and the conclusion, by which the things are judged either subsumable or nonsubsumable under the concept. The concluding statement may be untenable because of untenable premises, because of untenable inference from premises to conclusion, or because of both kinds of mistakes. By the term «subsumption inference» we refer to the inference alone. We are not concerned with the tenability of the author's views about things he subsumes under his concept of 'democracy'. The tenability of the major premise is not asserted in our occurrence implicates. The minor premise is the x we should like to discover or invent (in the sense that intervening variables [constructs] are invented).
7. It should be noted that as interpretation proceeds through the list of implicates, the premises of already performed interpretations may change, which

may make reconsideration urgent. We get «interpretational vibrations» (see chapter 2, section 13).

8. If the particular government in power in the USSR at the time of Zaslavski's edition of this book is identified (conceptually) with '*le régime soviétique*', opposition to that particular government is opposition to the most perfect democracy, that is, the most perfect government. If, on the other hand, the particular government at the time of Zaslavski is considered but one instance of a kind of government, '*le régime soviétique*', then opposition to a particular government is not by definition opposition to 'the regime'. The delimitation of concepts of 'regime' is important to the whole discussion of concepts of democracy.
9. In principle, there is a chance that the analyst and the author use different systems of logic in the sense of incompatible rules of inference, or sets of axioms. In most fields of discussion, this possibility is far-fetched.
10. The sentence can also plausibly be interpreted as a descriptive definition, or as a combination of N- and Ds-definitions.
11. Even if this question of intention is considered of no importance or of subordinate importance, there is still room for questions: Which of the descriptive definitions are most satisfactory as the basis for normative definitions? Which is the most precise, the simplest to use?
12. How this should be possible, I do not know. I would tend to regard the sentence as incapable of being given a precise meaning different from a sentence speaking about nondefinitive knowledge.
13. We shall write in the following as if we thought the translation perfect and as if our translations from French to English were undoubtful. This is done in order to concentrate on more central problems.
14. «*par les conservateurs [?] les plus réactionnaires*».
15. We do not consider «feelings may be classed as democratic» to be an implicate, because we consider «democratic feelings» to be synonymous with «feelings in favor of democracy». I mention this because in many cases a grammatical structure with adjective and substantive is misleadingly taken as indicating a classification in which the adjective refers to a subclass of a class expressed by the substantive.
16. Evidence from occurrences in other texts is, in principle, not taken into account. Lenin's terminology may suggest that he would favor T_2 , and this together with the status of Zaslavski as an adherent of Marxism-Leninism may suggest that Zaslavski also uses T_2 rather than T_1 . An example of an occurrence supporting T_2 is «The Soviet order . . . signifies . . . the rise of a new type of democracy in world history, that is to say proletarian democracy, . . .» (Lenin 1927: 26).

17. This would not imply that Zaslavski would not also hold that the press considers the Soviet Union not to be a democracy in other senses, possibly current in that press.
18. This expression cannot be used without qualification; see chapter 2, section 9.
19. In this book, «or» is always used for the inclusive *or*, symbolized by «v». The exclusive *or* is indicated by «either-or» and symbolized by «a» (for the Latin «*aut*»).
20. The broad concept of «people», which is explicitly advocated by Zaslavski, is not generally adopted by Marxist ideologists. Clear instances of a narrower concept are found, for example, in Mao Tse-tung's writings: «Our government is benevolent to the people only, and not towards the reactionary acts of the reactionaries and reactionary classes divorced from the people»; «The right to vote is given to the people only, not to the reactionaries» (Guillain 1950).
21. This assumption belongs to the many hypotheses that could possibly be ruled out as based on assumptions of too great definiteness of intention on the part of Zaslavski.
22. This word is added because, when the power is in this group's hands, it cannot be said to be underprivileged any longer.
23. A methodological argument against hypotheses with small fields of intended application is discussed in section 8. The amount of evidence with specific relevance to each hypothesis decreases with increased partition of the intended field of application.
24. There are 192 occurrences of «democracy» in Zaslavski's text. The negation of our synonymity hypothesis implies, therefore, that it is more likely that 96 or more senses of «democracy» are used by Zaslavski in his text than that fewer than 96 are used.
25. One may talk of occurrence analysis of implicates, evaluative occurrences, etc.
26. For more detailed argumentation concerning subordinate analyses, see p. 312.
27. See discussion of the predictional theory of usage in chapter 4, section 15.

Chapter VII: Introduction of a Group of Concepts or Tests of Synonymity

1. As closely related terms we take the conventional translations of the English terms into French, German, and the Scandinavian languages.
2. Compare the synonymity hypothesis of Davidson (1885: 89): «When --- Aristotle, in his *Categories*, refers to synonymous words, he means by «syn-

onymous» what Boëthius afterwards translated by the Latin *univocal*, i.e., the generic name which is equally applicable to each and all of the species contained under it».

3. This expression is taken from the class of synonymy sentences introduced in chapter 1. Others could just as well have been used.
4. We write b , but not a_i in *guillemets* because a_i is considered to be an abbreviation for «the occurrence no. i of the expression « a »».
5. «N-concept» may be read «norm concept», but «normative concept» would be misleading. The definiens expression (T 1.31) is not an announcement. It is a conjunction of three hypotheses.
6. In the following it is presumed that the fruitfulness of a concept introduced by means of definite definiendum expressions is also judged by the convenience of using the definiendum expressions to express the concept. Thus, the verdict «unfruitful» may not imply a criticism of having a concept expressed by the definiens. The verdict may sometimes only be based on criticism of the use of the definiendum to express the concept. This is the case in our example.
7. Compare the opening sentence of section 17, *Encyklopädie der Elementar-Mathematik* (1906/07: 1:2). Auflage. If we do not take into account the first three occurrences of «*Primzahl(en)*» in section 17, which are metaoccurrences or interpretable as metaoccurrences, the exclusion of 1 as a *Primzahl* is obvious, at least after the first thirty-four use occurrences. The «obviousness» is one of psychology and sociology, not of mathematics, however. From the thirty-four use occurrences it cannot be proved mathematically or logically that 1 is not a *Primzahl*.
8. There is in the following a constant need for use of the expression «something closely similar to, or identical with». To avoid a cumbersome exposition, I have left it out in several places.
9. «T is true» is written, not ««T» is true». One reason for this is the convenient rule of abstaining from *guillemets* when using the letters T, U, V, because they always stand for sentences.
10. It is explicitly mentioned in the questionnaire that it is not concerned with the tenability of the assertions, but with their power as arguments, if they are tenable.
11. A precization of «physical law» is summarily described in Løvestad 1945.
12. We need not here discuss the possibility of other concepts of «understanding a text written by an author x ». There are important distinctions to be made, particularly in connection with the theories of subjective and objective interpretation of laws and other legal documents.

13. At several places in this work, precizations of «strong confirmation», «strong disconfirmation», and a number of related terms have been needed. We have found it justifiable to abstain from discussing these terms in order not to take up more controversial issues than strictly necessary.
14. In cases of inconsistency, one may divide the occurrence class into as many classes as are required to make the inferences concerning the members within each class consistent with each other. In the final conclusions, the different classes can be made the subject of ambiguity hypotheses. Or one may conclude that there are internal contradictions in the views of the author of the text. There is no way of separating ambiguities from contradictions that does not have its foundation in uncertain auxiliary hypotheses.
15. Strictly speaking, several expressions are considered: «*démocratie*», «*démocratique*», and others.
16. The term «a-intentional» would be better suited as concept designation, but it is awkward to pronounce.

Chapter VIII: Synonymity Questionnaires in Use

1. In the first two chapters a number of designations were introduced, but not given any definite cognitive meaning. Something, however, was said about how they were to be used in the present work. For example, certain relations between the designations, and concerned with their cognitive meaning, were announced (stipulated, postulated). In other words, parts of their cognitive meaning were introduced. To remind ourselves of this incomplete determination of meaning, we have called the designations «terms» (or «technical terms») but not talked about concepts being introduced.
2. The Norwegian expression «*flere*» actually involved 'more (as regards number)'.
3. «A theorem of QsxA-synonymity» is an abbreviation for «a theorem of Qs1A-, Qs2A-, . . . , Qs8A-synonymity». The distinction between A- and B-synonymity is made on page 400ff. In the present chapter, tests of, for example, Qs6-synonymity, are not reported. On the basis of auxiliary hypotheses about similarity among the various Qsx questionnaires, a confirmation of a correspondence hypothesis covering Qs5A is taken as a confirmation of the more general hypothesis covering QsxA-synonymity. The latter confirmation is (of course) taken to be of a weaker degree.
4. Compare the discussion of relation between numbers of positive answers and possibilities of disconfirmation of symmetry and transitivity (page 469ff.).

References

- Ahlman, Ferd. 1883. *Svensk-Finsk Ordbok*. 2 Tillökta Uppl. Helsingfors: G. W. Edlung.
- Anastasi, Anne. 1937. *Differential Psychology: Individual and Group Differences in Behavior*. New York: Macmillan.
- Aristotle. 1950. *The Politics*, with an English translation by H. Rackham. London: Heinemann.
- Ast, Frederick. 1808. *Grundlinien der Grammatik Hermeneutik und Kritik*. Landshut: Thomann.
- Austin, John. 1875. *Lecture on Jurisprudence: The Philosophy of Positive Law*. New York: Henry Holt and Company.
- Baldwin, James Mark, ed. 1960. *Dictionary of Philosophy and Psychology*. Gloucester, MA: P. Smith (1925).
- Barnes, Harry, Howard Becker, and Francis Bennet Becker. 1940. *Contemporary Social Theory*. New York: Appleton-Century.
- Beard, Charles Austin. 1934. *The Idea of National Interest*. New York: Macmillan.
- Becker, Howard P. 1950. *Through Values to Social Interpretation: Essays on Social Context, Actions, Types and Prospects*. Durham, NC: Duke University Press. See Gurvitch and Moore for related writings.
- Bennett, Albert A., and Charles A. Baylis. 1939. *Formal Logic: A Modern Introduction*. New York: Prentice-Hall.
- Bentham, Jeremy. 1879. *An Introduction to The Principles of Morals and Legislation*. Oxford: Clarendon Press.
- . 1988. *The Principles of Morals and Legislation*. Buffalo, NY: Prometheus Books.
- Blaich, Theodore Paul, and Joseph C. Baumgartner. 1966. *The Challenge of Democracy*, 5th ed. St. Louis: McGraw-Hill.
- Bleuler, Eugen. 1923. *Lehrbuch der Psychiatrie*, 4 vols. Berlin: Springer.

REFERENCES

- Bradley, Francis H. 1914. *Essays on Truth and Reality*. Oxford: Clarendon Press.
- Bryce, James. 1888. *The American Commonwealth*, 3 vols. London and New York: Macmillan (1906).
- . 1921. *Modern Democracies*, 3 vols. London: Macmillan.
- Bryn, Alf B. 1932. *Opfindelser og Patenter*, 2 opl. Oslo: Steenske Forlag.
- Bryn, Alf B., with Per Onsager. 1938. *Patentloven: Den Norske Lov om Patenter*. Oslo: Tanum.
- Burks, Arthur W. 1951. "A theory of proper names." *Philosophical Studies* 2: 36–54.
- Carnap, Rudolf. 1936. "Testability and meaning." *Philosophy of Science* 3: 419–71.
- . 1942. *Introduction to Semantics*. Cambridge: Harvard University Press (1961).
- . 1945. "Hall and Bergman on semantics." *Mind* 54: 148–55.
- . 1947. *Meaning and Necessity: A Study in Semantics and Modal Logic*. Chicago: University of Chicago Press.
- . 1950. "Empiricism, semantics and ontology." *Revue Internationale de Philosophie* 4: 20–40.
- Cooley, John C. 1942. *A Primer of Formal Logic*. New York: Macmillan.
- Crew, Henry. 1928. *The Rise of Modern Physics*. Baltimore: Williams and Wilkins (1935).
- Croce, Benedetto. 1909. *Aesthetics as a Science of Expression and General Linguistics*, translated by Douglas Ainslie. New York: Macmillan.
- . 1921. *History: Its Theory and Practice*. New York: Harcourt, Brace.
- Dacqué, Edgar. 1935. *Organische Morphologie und Paläontologie*. Berlin: Gebrüder Borntraeger.
- Davidson, William L. 1885. *The Logic of Definition: An Explanation and Application*. London: Longmans.
- Dewey, John. 1939. *Intelligence in the Modern World: John Dewey's Philosophy*, edited by Joseph Ratner. New York: Random House, Modern Library.
- . 1944. *Democracy and Education*. New York: Macmillan.
- Encyklopaedie der Elementar-Mathematik*, vols. I–III. 1906/1907. Leipzig: B.G. Teubner.
- Erdmann, Benno. 1877. *Die Axiome der Geometrie*. Leipzig: L. Voss.
- . 1907. *Logische Elementarlehre*, 2 vols. Halle: M. Niemeyer.
- Erdmann, Johann E. 1841. *Grunriss der Logik und Metaphysik: Für Vorlesungen*. Halle: Johann Friedrich Lippert.
- Euclid. 1933. *Euclid's Elements*, edited by Isaac Todhunter. London: Dent, Everyman's Library.

REFERENCES

- Fairchild, Henry Pratt, ed. 1957. *Dictionary of Sociology*. Ames, IA: Littlefield, Adams (1944).
- Fisher, Irving. 1919. *Elementary Principles of Economics*, 3d ed. New York: Macmillan.
- . 1930. *The Nature of Capital and Income*. New York: Macmillan.
- Fitch, Frederic B. 1942. "A basic logic." *Journal of Symbolic Logic* 7: 105–14.
- . 1952. *Symbolic Logic: An Introduction*. New York: Ronald Press.
- Fleming, William, with Henry Calderwood. 1887. *Vocabulary of Philosophy, Psychological, Ethical, Metaphysical*. London.
- Fluge, F. 1944a. "Medvetsproblemet." Mimeograph. Oslo.
- . 1944b. "Noen logisk analytiske retninger i filosofien." Mimeograph. Oslo.
- Foner, Philip. 1944. *Abraham Lincoln: Selections from His Writings*. New York: International Publishers.
- Frazer, R. A., W. J. Duncan, and A. R. Collars. 1938. *Elementary Matrices and Some Applications to Dynamics and Differential Equations*. London: Cambridge University Press.
- Free, Edward Elway, and Travis Hoke. 1929. *Weather: Practical, Dramatic and Spectacular Facts About a Little Studied Subject*. New York: McBride.
- Frege, Gottlob. 1950. *Foundations of Arithmetic: A Logico-Mathematical Inquiry into the Concept of Number*, translated by J. L. Austin. Oxford: Blackwell.
- . 1952. *Translations from the Philosophical Writings of G. F. Frege*, edited by Peter Geach and Max Black. Oxford: Blackwell.
- Gardiner, Alan H. 1940–54. *The Theory of Proper Names*. London: Oxford University Press.
- Goodenough, Florence L. 1949. *Mental Testing: Its History, Principles and Applications*. New York: Rinehart.
- Grimm, L. 1954. "On the application of the concept of precization." *Synthese* 9.
- Guillain, Robert, Otto Van der Sprenkel, and P. N. Berkelbach, eds. 1950. *New China: Three Views*. London: Turnstile Press.
- Gullvåg, I. 1951. *Definiteness of Intention*. Mimeograph. Oslo.
- . 1954. "Criteria of meaning and analysis of usage." *Synthese* 9.
- Gurvitch, Georges, and Wilbert Moore, eds. 1946. *Twentieth Century Sociology*. New York: Philosophical Library.
- Haaland, A. 1947. "Exposition and critical examination of Nietzsche's 'will to power' philosophy." Mimeograph. Oslo.
- Haas, O., and George G. Simpson. 1946. "Analysis of some phylogenetic terms,

REFERENCES

- with attempts at redefinition." *Proceedings of the American Philosophical Society* 90: 319–49.
- Hall, Everett W. 1943. "The extra-linguistic reference of language." "The object language." *Mind* 53: 230–46.
- . 1944. "II: The designation of the object language." *Mind* 53: 25–46.
- . 1952. *What Is of Value?* New York: Humanities Press (London: Routledge and Kegan Paul).
- Hamilton, William. 1870. *Lectures on Metaphysics and Logic*, vol. 4. Edinburgh: Blackwood.
- Hilbert, David, and Wilhelm Ackermann. 1938. *Grundzüge der theoretischen Logik*, 2d ed. Berlin: Springer.
- . 1950. *Principles of Mathematical Logic*. New York: Chelsea.
- Hodgson, Brian H. 1874. *Essays on the Languages, Literature and Religions of Nepal and Tibet*. London: Trubner.
- Hodgson, Leonard. 1930. *Early Essays in Christian Philosophy*. London and New York: Longmans, Green.
- . 1956–57. *For Faith and Freedom*. The Gifford Lectures. Oxford: Blackwell.
- Hull, Clark L. 1943. *Principles of Behavior*. New York: Appleton-Century-Crofts.
- . 1952. *A Behavior System*. New Haven: Yale University Press.
- Husserl, Edmund. 1931. *Ideas: General Introduction to Pure Phenomenology*, translated by W. R. Boyce. London: Allen and Unwin.
- . 1950. *Husserliana: Gesammelte Werke*, edited by Samuel I. Jsseling. Dordrecht: Nijhoff.
- Jespersen, Otto. 1922. *Language: Its Nature, Development and Origin*. London: Allen and Unwin.
- Jevons, William Stanley. 1890. *Pure Logic and Other Minor Works*, edited by Robert Adamson and Harriet A. Jevons. London and New York: Macmillan.
- Jorgensen, J. "Det brede og det smale demokrati." (Publication information not available.)
- Kaufmann, Felix. 1943–44. "Verification, meaning and truth." *Philosophy and Phenomenological Research* 4.
- Keynes, John Maynard. 1962. *A Treatise on Probability*. New York: Harper and Row.
- Klein, Felix. 1898. *Enzyklopaedie der mathematischer Wissenschaften*. Leipzig: Teubner.
- Korsch, Karl. 1923. *Marxism and Philosophy*. Berlin (New York: Monthly Review Press, 1970).
- . 1938. *Karl Marx*. New York: Wiley.

REFERENCES

- Lasswell, Harold Dwight. 1948. *The Analysis of Political Behavior: An Empirical Approach*. London: Routledge and Kegan Paul (1951).
- Le Bon, Gustave. 1931. *Bases scientifiques d'une philosophie de l'histoire*. Paris: Flammarion.
- Lenin, V. I. 1927. *Collected Works of V. I. Lenin*. New York: International Publishers.
- Lincoln, Abraham. 1905. *The Complete Works of Abraham Lincoln*, 12 vols., edited by John Nicolay and John Hay. New York: Lamb Publishing.
- Love, Augustus E. H. 1897. *Theoretical Mechanics: An Introductory Treatise on the Principles of Dynamics with Applications and Numerous Examples*. Cambridge: The University Press.
- Løvestad, Ludwig. 1944. *Filosofiske problemer* 1: 63. Mimeograph. Oslo.
- . 1945. "Bidrag til en metodelære for de eksakte naturvitenskaper." Mimeograph. Oslo.
- Lundberg, George Andrew. 1942. *Social Research: A Study in Methods of Gathering Data*. New York and London: Longmans, Green.
- MacIver, Robert M. 1951. *The Web of Government*. New York: Macmillan.
- Madariaga, Salvador de. 1958. *Democracy vs. Liberty*. London: Pall Mall Press.
- Marx, Karl. 1920. *Capital*. London: Glaisher (New York: International Publishers, 1929).
- . 1932. *Das Kapital*, edited by Karl Korsch. Berlin.
- McKeon, Richard. 1951. *Democracy in a World of Tensions*. Chicago: University of Chicago Press.
- Murray, James A. H., ed. 1884–1928. *A New English Dictionary on Historical Principles*. Oxford: Clarendon Press.
- Naess, Arne. 1938. *Truth as Conceived by Those Who Are Not Professional Philosophers*. Oslo: Norwegian Academy of Science and Jacob Dybwad.
- . 1942. "Pressisjonsundersøkelser ved ekvivalensmetoden." Mimeograph. Oslo.
- . 1946. "Begreper 'Demokrati'." Mimeograph. Oslo.
- . 1947–51. *Interpretation and Preciseness*, I–VI. Mimeograph. Oslo.
- . 1953. *An Empirical Study of the Expressions "True," "Perfectly Certain" and "Extremely Probable."* Oslo: Norwegian Academy of Science and Jacob Dybwad.
- . 1954. "Objectivity of norms: Two directions of precization." Mimeograph. Oslo (1948).
- Naess, Arne, K. Kvaløe, and J. Christophersen. 1954. *Democracy, Ideology and Objectivity: Studies in the Semantics and Cognitive Analysis of Ideological Controversy*. Oslo: University of Oslo Press.

REFERENCES

- Nagel, Ernest. 1930. *On the Logic of Measurement*, Ph.D. diss. New York.
- Ofstad, Harald. 1950a. "Alf Ross' bestemmelse av begrepet 'rettsregel'." Mimeograph. Oslo (1949).
- . 1950b. "The descriptive definition of the concept 'legal norm' as proposed by Hans Kelsen." *Theoria* 16.
- . 1951. "Objectivity of norms and value judgements according to recent Scandinavian philosophy." *Philosophy and Phenomenological Research* 12: 42–68.
- . 1952. "Om deskriptive definisjoner av begrepet rettsregel." *Tidsskrift for rettsvitenskap*.
- . 1953. *An Inquiry into the Freedom of Decision, I—IV*. Mimeograph. Oslo.
- Owen, Robert Dale. 1846. *Wealth and Misery*. London: J. Watson.
- Owen, Robert Dale, with Francis Wright. 1843. *Tracts on Republican Government and National Education*. London: J. Watson.
- Pap, Arthur. 1944. *Elements of Analytic Philosophy*. New York: Macmillan (1949).
- Peirce, George James. 1926. *The Physiology of Plants: The Principles of Food Production*. New York: Holt.
- Pirsson, Louis V. 1924. *A Textbook of Geology*, vol. 1. New York: Wiley.
- Quine, Willard V. 1945. "On the logic of quantification." *Journal of Symbolic Logic* 10: 1–12.
- . 1952. *Methods of Logic*. London: Routledge and Kegan Paul.
- Reichenbach, Hans. 1947. *Elements of Symbolic Logic*. New York: Macmillan.
- Richards, Ivor Armstrong. 1949. *Interpretation in Teaching*. London: Routledge and Kegan Paul.
- Ries, John. 1931a. *Beiträge zur Grundlegung der Syntax*. Prague: Taussig & Taussig.
- . 1931b. *Was ist ein Satz?* Prague: Taussig & Taussig (Darmstadt: Wiss Buchgesellschaft, 1967).
- Ross, Alf. 1946. *Hvorfor Demokrati?* 2nd ed. 1967. København: Nyt Nordisk Forlag.
- Roucek, Joseph S. 1944. "A history of the concept of ideology." *Journal of the History of Ideas* 5: 479–88.
- Russell, Bertrand. 1931. *The Scientific Outlook*. London: Allen and Unwin.
- . 1934. *Freedom and Organization, 1814–1914*. London: Allen and Unwin.
- . 1946. *History of Western Philosophy*. London: Allen and Unwin.
- Russell, Bertrand, and Alfred North Whitehead. 1910–13. *Principia Mathematica*, 3 vols. Cambridge: The University Press.
- Sandburg, Carl. 1944. *Abraham Lincoln: Demokrat Manniskovain*. Stockholm: Natur och Kultur.

REFERENCES

- Schilpp, Paul Arthur, ed. 1942. *The Philosophy of G. E. Moore*. Evanston, IL: Northwestern University.
- Schlick, Moritz. 1938. *Gesammelte Aufsätze* (collected essays, 1926–36). Wien: Gerold.
- Schmitt, Carl. 1928. *Verfassungslehre*. Berlin: Duncker und Humblot (1965).
- Schumpeter, Joseph A. 1942. *Capitalism, Socialism, and Democracy*. New York: Harper.
- Seidel, Eugen. 1935. *Geschichte und Kritik der wichtigsten Satzdefinitionen*. Jena: Frommann.
- Sering, Max. 1917. "Der Anstrich der wesentlichen Demokratie." In *Die deutsche Freiheit*, edited by A. von Harnack, F. Meinecke, et al. Gotha: F. A. Perthes.
- Shull, A. Franklin. 1926. *Heredity*. New York: McGraw-Hill.
- Skinner, B. F. 1945. "The operational analysis of psychological terms." *Psychology Review* 52: 270.
- Smith, David Eugene. 1925. *History of Mathematics*, vol. 2. Boston and New York: Ginn.
- . 1929. *A Source Book in Mathematics*. New York: McGraw-Hill.
- Smith, Norman Kemp. 1918. *A Commentary to Kant's Critique of Pure Reason*. London: Macmillan.
- , trans. 1964. *Immanuel Kant's Critique of Pure Reason*. New York: St. Martin's.
- Social Science Research Council (SSRC). 1946. *Theory and Practice in Historical Study: A Report of the Committee on Historiography*. SSRC Bulletin 54.
- Stringham, Emerson. 1930. *Patent Claim Drafting*. Washington, D.C.
- Tarski, Alfred. 1944. "The semantic conception of truth and the foundations of semantics." *Philosophy and Phenomenological Research* 4.
- . 1946. *An Introduction to Logic and the Methodology of the Deductive Sciences*, 2d ed. New York: Oxford University Press.
- Terrell, Thomas. 1927. *The Law and Practice Relating to Letters Patent for Inventions*, 7th ed., revised and rewritten by Courtney Terrell and D. H. Corsellis. London: Sweet and Maxwell.
- Theimer, Walter. 1947. *Lexikon der Politik*, 7 neubearb. Aufl. Bern: Francke (1967).
- Thucydides. 1921–30. *History of the Peloponnesian War*, with an English translation by Charles Forster Smith. Cambridge and London: Heinemann.
- Tolman, Edward C. 1932. *Purposive Behavior in Animals and Men*. Berkeley: University of California Press.
- . 1951. *Collected Papers on Psychology*. Berkeley: University of California Press.

REFERENCES

- Tønnessen, Herman. 1948. "Det private initiativ: En semantisk-sosiologisk undersøkelse" (Private enterprise: a semantical-sociological study). *Filosofiske Problemer* (Oslo) 11.
- . 1949. "Typebegreper I, II." Mimeograph. Oslo.
- . 1950–51. "The fight against revelation in semantical studies." *Synthese* 8.
- Torm, Frederik. 1938. *Nytestamentlig Hermeneutik*. Copenhagen: Gad.
- von Mises, Richard. 1939. *Kleines Lebrbuch des Positivismus*. The Hague: van Stockum (Chicago: University of Chicago Press, 1939).
- Vyshinsky, Andrej Y. 1948. *The Law of the Soviet State*, translated by H. W. Babb. New York: Macmillan.
- Wade, Donald William. 1946. *The Way of the West*. London: H. Joseph.
- White, Leonard D., ed. 1942. *The Future of Government in the United States: Essays in Honor of Charles E. Merriam*. Chicago: University of Chicago Press.
- Wilson, Alice Evelyn. 1945. "Rafinesquina and its homomorphs Öpikina and Öpikinella and Strophomena and its homomorphs Trigrammaria and Microtrypa." *Transactions of the Royal Society of Canada*, paper 90-9, sect. IV, pp. 238–98.
- Woodger, J. H. 1939. *The Technique of Theory Construction*. Chicago: University of Chicago Press.
- Woodruff, Lorande L. 1932. *Animal Biology*. New York: Macmillan.
- Wyld, Henry Cecil Kennedy. 1932. *The Universal Dictionary of the English Language*. New York: Dutton.
- Zaslavski, David. 1946–47. *La démocratie soviétique*. Paris: Editions Sociales.

Index

- agreement
 - expressed interpersonal and propositional, 139
 - latent, 159
 - verbal (to assent and agree), 137–38
 - See also* pseudoagreement
- ambiguity sentences, 30
 - description of hypotheses expressed by, 209–15
- ambiguity(ies), 30–33, 104
 - of definiens, harmless vs. harmful, 289
 - definitions/meanings, 30
 - intrapersonal, 96
 - preciseness and, 68–69
 - receiver, 83–85
- ambiguous expressions, synonymy between, 33–39
- American Commonwealth, The* (Bryce), 249–53
- analogy, 217
- Anastasi, Anne, 174–75
- announcement sentences, 23, 42, 168
 - synonymy, 161–63, 214–15
 - intended subject matter, 161
- announcements, 172–73, 269
 - interpretive, 170–72
 - terminological, 163
- Apostel, Dr. Leo, 489–90
- argumentational status, 412–13
- argumentational synonymy, 412–14
- Aristotle, 9, 32
- assenting, act of, 137, 155
- asserter, 54
- asserter interpretation, 54, 55
- asserter-preciseness, 119, 120
- assertions
 - vs. announcements, 42
 - motives for making, 49–50
- assumptions, 49–50, 144, 211
- asymmetrical relation, 112
 - of preciseness, 111
- Baumgartner, Joseph C., 295
- Baylis, Charles A., 217–20
- Beard, Charles Austin, 207, 387
- Becker, Howard P., 208
- Bennett, Albert A., 217, 218
- biased vs. unbiased interpretations, 55–56
- Blaich, Theodore Paul, 295
- “blind,” 16
- Bourne, 213
- Bradley, Francis Herbert, 264–65, 287
- Bridgman, P. W., 301
- Bryce, James
 - definitoid formulations of democracy, 294, 296
 - classification of, 251
 - in *Modern Democracies* and *The American Commonwealth*, 249–53
 - tentative precisizations of, 256–64
- Bryn, Alf B., 229, 230
- Buckman, 213
- Burks, Arthur W., 28
- Carnap, Rudolf, 23–24, 27, 217, 236–38, 266
- clarifiers, 152
- class property, 218–19
- class reference, 9
 - See also* reference class(es)
- Clifford, W. K., 173
- cognitive communication, semantics of, 2
- cognitive meaning, 79
- cognitive signification, 79
- cognitive synonymy, 167

INDEX

- cognitive-weight-condition concepts of
 - synonymy, 412
- commands, and groups commanded, 155
- communicable interpretation, 55
- communication
 - to many people, schematic view of requirements of, 125–26
 - single acts of
 - limited importance to science and technique of interpretation, 124–25
 - See also specific topics*
- communism. *See under* Zaslavski, David
- concept designation. *See* designation
- concept subsumability, 82
- concepts, 183
- conceptual characteristic expressions, 80–81
- connotation, 79–82
 - See also* occurrence analysis, connotational
- context
 - interpretational vibrations caused by broadening of, 128–32
 - preciseness and knowledge of, 126–28
 - See also under* preciseness
- contradiction, 243, 244
- conviction, 216
- Cope, E. D., 397
- copies of the same instance (occurrence), 6–7
- Crew, Benedetto, 25, 26, 211
- decisions, 178–79
 - expressing, 237
 - motives/reasons justifying, 179–84
 - reinforcing dispositions, 178
- definiendum expressions, 161, 166–68, 175–77, 196
- definiendum indications, lack of preciseness and elaborateness of, 286–89
- definiens expressions, 79, 161, 166, 170
 - reformulation to facilitate comparison and increase preciseness, 253–56
- definiens indications, lack of preciseness and elaborateness of, 289–93
- definitional function, sentences with complex, 200–204
- definition(s), 163–66, 237
 - concepts of, 204–06
 - as condensed characterizations (*see* real definitions)
 - description of, 219, 239–40
 - descriptions of explicit, 238–39
 - descriptive (Ds-definitions), 191–93, 215–17, 221, 224, 226, 248
 - giving and making them more precise, 194–95
 - descriptive synonymic, 191
 - vs.* formulation of definition, 220, 226
 - interpreting definiens on basis of examples
 - supporting, 296–97
 - “true by definition,” 187–91
 - types of, 163–65
 - See also* normative (interpretative) definition(s)
 - See also* field of (intended) application; meaning(s)
- definitoid formulations
 - analysis of groups of, 244–48
 - on “democracy,” 249–53
- definitoid sentences, interpretation of, 215–17
- definitoid statements
 - inconsistencies and contradictions within
 - complex, 241–44
 - levels of preciseness of descriptions of, 230–38
- democracies, various, 350–51
- “democracy,” 33, 37–40, 162, 199, 271, 295, 296
 - broad concepts of (authentic and non-authentic), 361–65
 - precization possibilities of, 366–72
 - defined, 230–33, 235, 245
 - Lasswell on, 230–33, 235, 236
 - Mussolini on meanings of, 207
 - narrow concepts of (authentic), 361–65
 - precization possibilities of, 372–76
 - occurrence analysis and, 305–11
 - See also* occurrence analysis, connotational, illustration of a
 - Schumpeter on, 289
 - “total,” 373–74
 - Vyshinsky on, 305–09
 - See also* Bryce, James; “government of . . . by . . . and for the people”; Zaslavski, David
- “democratie”
 - occurrence list of, 334
 - See also* “democracy,” occurrence analysis and
- democratic regimes/governments, 230–33, 236, 312–13
 - and antidemocratic regimes, 312, 347–48
 - See also* Bryce, James; “democracy”

INDEX

- democratic society, 230, 233, 235–36
 - See also* Bryce, James; “democracy”
- denotata, 72, 90, 196, 197
- denotation, 81–82, 217–19
- denotational explicatum, 90–92
- denotatum hypotheses, 82
- denotatum sentences, 82
- deprecization, 62
- descriptive concepts. *See under* synonymy,
 - concepts of intrapersonal
- descriptive definition (Ds-definition)
 - formulation of (Ds-formulation), 193, 218, 220, 226
 - See also* definition(s), descriptive
- designation, concept, 165–66
- designations, 53, 132
 - on equal footing, 223–24
- disagreement
 - expressed interpersonal and propositional, 139
 - latent, 157–58
 - See also* pseudoagreement, and pseudo-disagreement
- discrimination, 152
- discussions, types of sequences of steps in, 148–49
- Ds-definitions. *See* definition(s), descriptive
- elaborateness, 293–96
- elaboration, 77–79
- elementary analysis, illustrations of, 226–30
- empirical inconsistency, 243
- empirical reflexivity and irreflexivity, 104, 109
 - See also* irreflexivity
- Empiricism, Semantics, and Ontology* (Carnap), 23–24
- equality, 24–25
- Euclid, 41
- exemplification, 74–77
- exhortation, and groups exhorted, 155
- explication
 - connotational, 88–89
 - denotational, 89–91
 - process of, 91–93
- expression(s), 6–7, 238
 - use and interpretation of an, 8–9
- Fairchild, Henry Pratt, 294
- “false,” 176
- field of (intended) application, 166, 168–69, 192, 220–25, 296
 - indications of, 293–96
 - and practical testability of hypotheses, 325–29
- field of validity, intended, 167–68
- Fisher, Irving, 275–77, 286
- Fitch, F. B., 238
- fundamentum divisionis*, 87
- Gottschalck, Professor, 277–78
- “government of . . . by . . . and for the people,” 5–9, 247, 248
 - See also* “democracy”
- Haas, O., 213, 217, 397
- Hall, Everett W., 30
- hermeneutical circle, 128, 132
- Herodotus, 252
- heteronymy, 28–30, 86, 101, 107–9, 407, 422–23
 - See also under* reference class(es)
- heteronymy sentences, 28–29
- heteronymous (reference) lists, 52–54, 68, 94, 102
 - intrapersonally, 94–96, 98
- history, meanings of, 277–85
- hypotheses
 - describing, 212–14
 - involved/assumed, 211
 - practical testability and intended field of application, 325–29
 - See also* field of (intended) application
 - See also specific topics*
- identity of intended meaning, 175
- “if-then” statements, 288–90
- imperatives, synonymy and preciseness of, 132–35
- inconsistency
 - logical vs. empirical, 243
 - in questionnaire answers, 482–83
- instances. *See* occurrences
- intended field of application. *See* field of (intended) application
- intended obeyers of a sentence, group of, 154–55
- intention, definiteness of, 85–88, 179, 380–81, 489
- interpretans expressions and lists of interpretations, 50–57

INDEX

- interpretation relation, 112
- interpretational epoché, 84, 85
- interpretation(s), 112–13
 - authoritative systems as guides for, 447–50
 - biased vs. unbiased, 55–56
 - designations, sentences, and, 53
 - of an expression, 8–9
 - nontrivial, 56
 - preliminary lists of, 423
 - preliminary second-order lists of, 433
 - principle of implied synonymy in, 49
 - process(es) of, 9, 120
 - suspension of, 83–85
 - See also specific topics*
- interpretative sentences, 45–50
- interpretative announcements, 170–72
- intraintentional misinterpretation, 88
- intransitivity, 467
- irreflexivity, 104, 108–10, 112

- James, William, 7, 240
- Jespersen, Otto, 290

- Kant, Immanuel, 78
- Kaufmann, Felix, 47–48
- Kelsen, Hans, 239

- language, 290
 - “correct,” 44, 45
 - See also* linguistics; semantic systems
- Lasswell, H. D., 230–32, 235, 236
- lexicography, 394–95
- limited choice analysis, 329–31
- Lincoln, Abraham, 7, 9, 175, 248
- linguistic norms, references to, 16
- linguistics, and occurrence analysis, 381–84
- logic, classical, 217
- logical inconsistency, 243
- Love, A. E. H., 200, 201, 420–21
- Løvestad, Ludwig, 242
 - questionnaire, 414–16
- Lundberg, George Andrew, 60–61

- Mach, Ernst, 19
- Malinowski, Bronislaw, 301
- marginal references. *See* references, marginal
- Marx, Karl, 305
- mathematical sentences, 65–66

- McKeon, Richard, 37
- meaning(s)
 - multiple (*see* heteronymy)
 - references to norms of, 10
 - revealed by use, 301–02
- meta-analysis, 222
- metaoccurrence analysis, 265–66
- metaoccurrences, 7–8, 27, 42–44
 - descriptions of, 214
- metaquestionnaires, empirical evidence from, 473
 - comparison of meta-results, 480
 - differential procedure, 478–82
 - MetaQSII/MetaI, 473–77
 - MetaQSIII, 477–78
- misinterpretation, 85, 88, 115, 124–25, 145
 - concepts of preciseness based on frequency and gravity of, 152–53
 - and pseudoagreement in relation to imperatives, 154–57
 - of questions, 157–59
 - with weight effects, 150–52
- Modern Democracies* (Bryce), 249–53
- Moore, G. E., 175
- Mussolini, Benito, 207

- “N-synonymy,” 391–94
 - limited fruitfulness of, 394–96
- N-synonymy hypotheses, how to test, 396–98
- neologisms, 184
- Newton, Isaac, 9–10, 18, 19
- norm concept (N-concept) of synonymy. *See* “N-synonymy”
- normative concepts. *See under* synonymy, concepts of intrapersonal
- normative (interpretative) definition(s) (N-definitions), 163, 166–68, 170–71, 216–17, 221, 224, 226, 231, 248, 267–68, 320–22
 - complex, 169–70
 - conditions of two sentences expressing the same, 175–78
 - exemplified, 172–75
 - formulation of (N-formulation), 218, 226
 - how they are criticized or appraised, 187–91
 - identification of, 168–69
 - interpreting definiens on basis of examples supporting, 296–97
 - preciseness of definiendum and definiens in, 184–87
 - purpose, 178–84

INDEX

- normative interpretative vs. synonymy sentences, 228
- normative vs. descriptive statements, 215–16
- normative synonymy sentences, 228
- occurrence analysis, 299, 325–31
 - analysis of single designation on basis of hypotheses about structure, 331–32
 - assumptions about definiteness of intention, 380–81
 - connotational, 319, 325, 329–31, 384, 388
 - delimitation of class of occurrences to be analyzed, 332–33
 - illustration of a, 359–76
 - implicate list, 333–44
 - inferences in relation to occurrences, 344–54
 - main steps of standard, 304–16
 - consistency problems, 316–25
 - disregarding authors and intended meanings, 447–50
 - function of assumptions about uniformity of use, 376–80
 - linguistics and, 381–84
 - nonintentional, 448–50
 - synonymy of, 436–50
 - types of, 384–88
 - See also* limited choice analysis
- occurrence classes, 439–40
- occurrence implicates
 - interpreting, 312–16
 - listing, 306–11
- occurrence inferences, 439–41, 443
- occurrence preciseness, 445–46
- occurrence synonymic alternatives, 445–46
- occurrence synonymy
 - concept of, 438–42
 - and connotational occurrence analysis, 442–45
- “occurrence-heteronymous,” 440
- occurrences, 6–7
 - identifying and specifying, 304–06
 - natural and artificially produced, 302–04
 - past, future, and possible, 16–18
 - reference to single pair of, 9
 - references to many (kinds of), 9–10
 - relation of synonymy between definite, 14
 - in text, references to, 13–16
 - See also* metaoccurrences
- Ofstad, Harald, 174, 217, 239
- opposites, looking for, 383
- Owen, Robert Dale, 213–14, 217
- Pap, Arthur, 26–27
- persuasion, 216
- Pirsson, L. V., 292–93
- Plato, 38, 39
- popularizations, 234
- pragmatists, 240
- preciseness, 77, 110–12, 176, 293–96, 486
 - and ambiguity, 68–69
 - asymmetrical relation of, 111
 - concepts of, based on frequency and gravity of misinterpretation, 152–53
 - equality of, 113–14
 - incomparability and transintentionality in relation to, 113–16
 - interpretation and, 66–68
 - interpersonal relations of, 435–36
 - knowledge of context and, 126–28
 - of *n* sentences, comparison to heteronymous reference class, 116–19
 - normative definitions, 62–65
 - occurrence, 445–46
 - relation to the vernacular, 65–66
 - of single acts of communication, 119–24
- precization, 62, 232
 - directions of, 86
 - levels of, 86–87
 - maximal, 87
- “predicate,” 265
- predictional theories, 207–08
- predictions, 172–73
- “proposition,” 24–25, 266
 - See also* history
- pseudoagreement
 - latent, 159
 - and misinterpretation in relation to imperatives, 154–57
 - and other undesired properties, communications that show symptoms of, 142–48
 - and pseudodisagreement, 139–42
- pseudoexpressed agreement, 139
- QS₄-synonymy relations, transitivity of, 469
- QS₄A-synonymy relations, symmetry of, 465–66
- QSI-synonymy relations, transitivity of, 469
- QSIA-synonymy, 495n1
- QsxA-synonymy, theorem of, 503n3

INDEX

- Qsxy questionnaires, 473
- Qsxy-synonymity, 417–18
- questionnaires. *See* Løvestad, questionnaire; synonymity, concepts of intrapersonal; synonymity questionnaires
- questions
 - misinterpretation of, 157–59
 - synonymity and preciseness of, 135–36
- real definitions (R-definitions), 195–96, 216–17
 - exemplified, 196–200
 - formulation of (R-formulation), 199–200
- realist theory of law, 45
- receiver ambiguity, 83–85
 - See also* ambiguity(ies)
- receiver preciseness, 119
 - See also* preciseness
- receiver synonymity, 20
 - See also* synonymity
- receivers, 55, 154
- reference class(es), 9, 93–95, 430–31
 - branched, 86
 - heteronymous, 98, 103
 - preciseness of n sentences in relation to, 116–19
 - ordinary, first-order, 423–26
 - ordinary, second-order, 433–35
 - preciseness in relation to, 96–98
 - quantitative measures of, 98–104
 - unambiguity in relation to, 95–96
- references
 - marginal, 11–13, 47, 162, 168, 396
 - obscure, 10–11
- reflexivity, symmetry, and transitivity of relations, 104–13
- Reichenbach, Hans, 27
- response choices, questionnaire
 - effects of reversal of order of, 489–90
- Russell, Bertrand, 216, 222, 291–92
- scatter diagram of interpretations, 96
- Schlick, Moritz, 291
- Schumpeter, Joseph A., 289
- scientific hypotheses and theories, 22
- semantic systems, 39–45
- semantics, 1–2
 - of cognitive communication, 2
- semiotic relations, 161
- sender synonymity, 20
- sender-receiver synonymity, 20
- sentences
 - types of, 41
 - See also specific topics*
- Shull, A. Franklin, 202, 203
- Simpson, George G., 213, 217, 397
- simultaneity, 426, 427
- Skinner, B. F., 61–62
- “slave democracy,” 377, 383
- “Soviet democracy”
 - occurrence analysis of, 345–47
 - See also* Zaslavski, David
- specification relation between designations, 72–73
- specification(s), 69–72
 - vs. precization(s), 73–77
 - of sentences, 74
- speech
 - admitted/preferred usage, 44, 45
 - vs. language, 39–40
 - See also* semantic systems
- Stringham, Emerson, 197
- subject matter reference, 11–12
- substitutability, complete mutual, 38
- substitutability synonymity, 24
 - See also* synonymity, substitutional
- subsumability, 16
- subsumability problems, 82
- subsumption analysis, 90, 99, 396
 - difficulties of testing descriptive definitions by means of, 285–86
 - illustrations of, 275–85
 - occurrence analysis and, 299, 325
 - preliminaries involved in (schematical survey), 268–75
 - scope and definition, 266–69
- subsumption, unlimited possibilities of, 331
- suspension, interrelational, 83–85
- symmetry, 106–07, 110
 - of synonymity relations, 452–66
 - See also* asymmetrical relation
- Syn(aM, bM₂), 12–13
- synonymic alternatives, 57–59, 171, 445–46
 - and interpretations, examples of lists of, 59–62
 - See also specific topics*
- synonymities, method of
 - obstacles endangering fruitfulness of (*see* synonymity questionnaires, difficulties of questionnaire procedures)

INDEX

- synonymy, 104–07, 205, 426
 - argumentational, 412–14
 - asymmetry of, 469
 - cognitive, 167
 - concepts of interpersonal, 1, 18–21, 418–36
 - interpersonal relations of interpretation and preciseness, 435–36
 - concepts of intrapersonal, 1, 18–21, 389–91, 410–11
 - cognitive-weight-condition, 412
 - Ds-concepts, 398–406
 - N-concepts, 391–96
 - reported sameness of meaning, 398–99
 - rule of sameness of sense, 391–94
 - truth-condition, 406–10
 - verification, certainty, and truth-condition, 410–11
 - concepts/meanings of, 69, 71, 204–06, 269, 495n1
 - defined, 210
 - in terms of occurrence analysis, 436–37
 - intrasituational ($\text{Syn}(a_i, b_i, S_i)$) and intersituational ($\text{Syn}(a_i, b_i, S_i)$), 21, 25
 - substitutional, 33–39
 - See also* substitutability synonymy
 - See also specific topics*
- synonymy expressions, 11
- synonymy habits, modifying. *See* decisions
- synonymy hypotheses, 48–50, 238–39, 269
 - broadness and definiteness, 21–22
 - intended subject matter, 11
 - interpersonal, 424–26, 433–35
 - based on information about intrapersonal synonymy, 418–23
 - interpreting occurrences offered in support (and on basis) of, 298–99
 - intrapersonal, 24–25
 - testability, 11–22
 - See also* synonymy sentences, description of hypotheses expressed by
- synonymy question, 400
- synonymy questionnaires, 416–17, 451–52, 466, 492–93
 - difficulties of questionnaire procedures, 482
 - difficulties of QS1, 484–87
 - difficulties of QS2, 487–89
 - effect of reversal of sentences in QS3, 489–90
 - effect of training on classifiability of answers (QS5), 490–92
 - general considerations, 482–84
 - empirical symmetry of relations of Qsxy-synonymy, 452–54
 - evidence of symmetry of synonymy relations as defined by, 454–66
 - evidence of transitivity of synonymy relations as defined by, 467–70
 - interviews used to study previously given answers, 470–73
 - transitivity of synonymy relations and, 466–67
 - See also* Løvestad, questionnaire; meta-questionnaires; synonymy, concepts of intrapersonal
- synonymy rules, 41
- synonymy sentences, 5–11, 70
 - description of hypotheses expressed by, 209–15
 - examples, 23–28
 - normative, 228
 - See also* synonymy hypotheses
- systems, semantic. *See* semantic systems
- Tarski, Alfred, 24
- terminological announcements, 163
- terminology, questions of, 153–54
- Tønnessen, Herman, 296–97
- transintentional misinterpretation, 88
- transintentional precisizations, 87
- transintentionality, preciseness and, 85–88, 114–16
- transitive relations, 107–10, 112
- transitivity of synonymy relations, 466–67
 - empirical evidence of, 467–70
- truth, 287, 288, 290–92
 - Bradley on, 264–65
 - theories of, 292–93
 - Voltaire on, 207
 - See also* “false”
- truth-condition questionnaires, 412
- unambiguity, 95–96
- “use of an expression,” 8–9
- Valentine, L. I., 226, 229
- validity, intended field of, 167–68
- value judgment, 217

INDEX

Voltaire, François Marie Arouet de, 207
von Mises, Richard, 265–66
Vyshinsky, A. Y., 305–09

Wade, Donald William, 295
wealth, Irving Fisher on, 275–77
Whitehead, Alfred North, 222
Woodruff, Lorande L., 197–99

Zaslavski, David
on communism and Soviet Union, 500n16
definitoid statements on democracy, inferences
from, 354–59
La démocratie soviétique, 312–13, 315–16, 326,
332–54, 359–88, 436–37, 442–43,
500n8

Arne Naess was born in Slemdal, Norway, in 1912. One of Norway's foremost philosophers, known especially for his innovative eco-philosophy, Naess began his work with peace studies, global justice, and human rights, and continued with environmental matters. The subjects of his scholarly work and interests include empirical semantics, logic and foundations of science, communication theory and practice, Spinoza, scepticism, gestalt ontology, and normative systems theory. Naess's contributions have been honored by many awards, including Norway's Peer Gynt Award, Denmark's Sonning Prize, the Nordic Council Award for Nature and Environment, the Uggla Prize for Humanistic Studies from Stockholm University, and the Mahatma Gandhi Prize for Non-violent Peace.

Naess graduated from the University of Oslo in 1933, studied in Paris and Vienna, and became the youngest person appointed to a full professorship of philosophy at the University of Oslo, where he worked from 1939 to 1969. Since 1970, he has continued his work as a philosopher, naturalist, and environmental activist. He has been involved with the University of Oslo's Center for Development and the Environment since 1991. The Arne Naess Chair in Global Justice and the Environment is being established at the university to encourage scholars to engage creatively with Naess's work and ideas, in particular to promote new insights into environmental issues and the challenges posed by globalization, and to develop ideas that will help to humanize the difficult and conflict-laden transition to sustainability. Naess holds honorary doctorates from Stockholm University and The Norwegian National University of Sports and Physical Education. He is also an honorary member of The Norwegian Alpine Club and The Norwegian Tourist Association.

In addition to writing countless articles and essays that have been translated into several languages and have appeared in anthologies and journals throughout the world, Naess is the author of numerous books, including *Life's Philosophy: Reason and Feeling in a Deeper World* and *Ecology, Community and Lifestyle*. He was founder and editor of the journal *Inquiry*, and has lectured in many countries. As a mountaineer, Naess was the first to climb Tirich Mir in Pakistan. In the 1930s, he built a hut on Hallingskarvet Mountain in Norway, where he spent much time reflecting upon and relating to the surroundings and native plants of his retreat. His respect and appreciation for diversity, wonderment, and our relationship to

the natural world has continued throughout his life and is reflected in the spirit of his work.

Naess currently lives in Oslo with his wife, Kit-Fai.

Harold Glasser, Ph.D. is Associate Professor of Environmental Studies at Western Michigan University in Kalamazoo, Michigan. He has been a visiting Senior Fulbright scholar at the Center for Development and Environment and Department of Philosophy, University of Oslo; a Resource Person for the United Nations University–Institute of Advanced Study; a visiting researcher at the International Institute for Applied Systems Analysis; and a lecturer at Schumacher College. He has written on environmental philosophy, policy, and planning, as well as green accounting, education for ecocultural sustainability, and campus sustainability assessment.

Alan R. Drengson, Ph.D. is Emeritus Professor of Philosophy at the University of Victoria, in Victoria BC Canada. He is a former Director of Environmental Studies and is currently an Adjunct Professor of Graduate Studies. He is the author of numerous articles, reviews, and books, as well as the editor of three anthologies and the founding editor of two journals, *The Trumpeter: Journal of Ecosophy* and *Ecoforestry*.

Designed by Tamotsu Yagi Design
Composed by Ralph Fowler and BookMatters in Garamond 3
Printed by Krips, Meppel on Cyclus Offset 90 gr/m²
Bound by Callenbach, Nijkerk in Elite and stamped with Colorit 922

Notes

Chapter I: Pyrrho's Scepticism According to Sextus Empiricus

1. See Sextus Empiricus, *Outlines of Pyrrhonism*, bk. 1: secs. 12 and 26. (In all references to this work, hereafter referred to as *Outlines*, Arabic numbers refer to sections unless explicitly noted as specifying chapters.) The German translation by Eugen Pappenheim (1877: 26) of bk. 1: 12 is very good on this point: "Hochbegabte Menschen nämlich kamen, beirrt durch die Ungleichmässigkeit in den Dingen und unentschieden, welchen von ihnen sie sich mehr fügen sollten, dahin, zu suchen, was wahr sei bei den Dingen und was falsch, um in Folge der Entscheidung hierüber unbeirrt zu sein."
2. In this connection, the second to the last sentence of *Outlines* (bk. 1: 12) is important. Robert G. Bury (1933: 9) translates, "The main basic principle of the Sceptic system is that of opposing to every proposition an equal proposition. . . ." But here we should first of all reject the term *system*. Second, the term *basic principle* somewhat unhappily suggests a rule or proposition claimed to be valid. Third, an impression of deliberate policy is conveyed by talking of a principle of doing such and such. Pappenheim (1877: 26) has avoided most of these unsceptical suggestions, translating *systaseos arché* as *des Verharrens Anfang*: "Des skeptischen Verharrens Anfang (Grundprincip) aber ist hauptsächlich, dass jeder Rede eine gleiche Rede gegenübersteht."
3. [Editor's note: In discussing this revision of *Scepticism* with Naess, he was emphatic about asserting that it is no longer his view that the mature sceptic, by definition of being a mature sceptic, has peace of mind.]
4. For study of the use of *apangello* and related words, see especially chapters 23, 25, and 27 of *Outlines*, bk. 1.
5. Ten occurrences of *foné* are found in chapters 7, 8, 19, and 28 of *Outlines* (bk. 1: 14, 15, 187, 188, 191, 207).
6. If *all* utterances, then "perception" must be taken in a rather wide sense.
7. The dogmatist also "puts forward" but "with affirmation" (*Outlines*, bk. 1: 197).
8. Pappenheim (1877: 71) translates very well: "Eine Redensart, welche unseren Zustand kundthut."

9. For some important occurrences of *adoxastos*, see *Outlines* (bk. 1: 15, 23, 24; bk. 2: 13). And of *adiaforos* (bk. 1: 195, 207).
10. Nevertheless, Sextus sometimes uses the term *to opine* when referring to his own (or to sceptical) utterances (see *Outlines*, bk. 1: 4, 17). In bk. 1: 19, the reflexive “they seem to me” is used.
11. Whereas considerations of style may have perverted Hume’s argumentation in a dogmatic direction (or did he perhaps wish to convert the reader to a system?), the dictates of intellectual sincerity can sometimes pervert the style of the sceptic. In the writings of Ingemund Gullvåg, a contemporary sceptic, repeated expressions of uncertainty and perplexity leave the reader wandering in a structureless plain of if’s, presumably’s, and perhaps’s (cf. his “Scepticism and Absurdity,” 1964). One wonders how many important manuscripts by sceptics have remained unpublished because they ultimately led nowhere. Hume’s writings are eminently readable in part because of the provoking dogmatism of their style and the highly interesting general conclusions that crop up in every chapter.
12. *Outlines*, bk. 1: 7, *Fainesthai hémin*.
13. For example, *ta aisthéta* (*Outlines*, bk. 1: 9), *fantasia* and *pathos* (bk. 1: 13).
14. Hicks wrote in 1910, but as recently as 1964 there have been writers who think that scepticism essentially concerns itself with the belief in an external or material world. The *Dictionnaire de la philosophie* (Didier 1964) says some quite astonishing things: “Hegel a distingué, d’une manière très lumineuse: 1° le *skepticisme antique* (Pyrrhon, Aénéside), qui consiste à douter de la réalité du monde extérieur et à croire néanmoins en la réalité d’un monde spirituel, et l’existence de Dieu; 2° le *skepticisme moderne* (positivisme, scientisme), qui consiste à ne croire que ses sens, à affirmer la seule réalité du monde matériel et à douter de Dieu. Le Philosophe Berkeley rentrerait dans la première catégorie, Auguste Comte dans la seconde.”
15. Chisholm (1941) writes: “In this context he seems to suggest that metaphysical statements might be true, even though not known to be true, but it is doubtful that he intended this, in view of his doctrine that indicative signs have no reference. He opposed such statements, not merely because he regarded them as nonsense, but also because he believed them to engender futile controversy which seriously interferes with that quietude or ataraxy which is the sceptic’s ultimate goal. The objection is primarily a pragmatic one” (p. 375).
16. “C’est dans le raisonnement que le scepticisme montre toute sa faiblesse. Il est clair, en effet, que du désaccord des opinions et des systèmes on ne pourra conclure légitimement à l’impossibilité, pour l’esprit humain, d’atteindre la vérité qu’à une condition, c’est que ce désaccord ne puisse s’expliquer que s’il n’y a pas de vérité ou si elle nous est inaccessible.”

Chapter II: The Psychological Possibility of Scepticism

1. Russell (1948: 191) distinguishes sceptical solipsism, the view that “there is not known to be anything beyond data” from dogmatic solipsism, the view that “there is nothing beyond data,” although according to Sextus, both views should be distinguished from scepticism. Russell’s tendency to equate scepticism with the view that knowledge of something or other does not exist or is impossible leads him to quite astonishing assertions. Thus, in a discussion of Pyrrho, he states that sceptics “of course, deny that they assert the impossibility of knowledge dogmatically but their denials are not very convincing” (1945: 234). Russell does not say why he finds the denials unconvincing. But surely, if all Sextus’s efforts to use ways of announcement compatible with his rejection of negative dogmatism, and all his efforts to show that he could not possibly take the sceptical phrases (“Nothing is known,” etc.) as true, are to be registered by the critical historian as mere “camouflage,” the most surprising results might be expected from other philosophical sources. Maybe, in his heart, Plotinus was a follower of Democritus?
2. In *Our Knowledge of the External World as a Field of Scientific Method in Philosophy* (1914), and later, in various epistemological and ontological works, Russell has tried to develop philosophically satisfactory solutions to problems that many have considered to be pseudo-problems.
3. In some circumstances, of course, it might be more appropriately thought of as tantamount to acceptance of some other proposition, for example, “This is how a confident man walks into a room.” But the view would be that some proposition or other is implied, and, perhaps, that enough information about the circumstances would determine which proposition.
4. The terminology here is that of Chisholm in, for example, *Theory of Knowledge* (1966). See especially chapter 1.
5. “Choose to go out or not to go out” might seem at first sight to be a genuine option, but it is unclear that in subsequently going out or not going out, one has necessarily chosen to do so. What if one forgets the option, or goes immediately to sleep, or is swiftly carried out before having decided? Even if one cannot (and perhaps one can) avoid the choice, it may elude one. James, however, does not give this as an example of a genuine option. Instead he gives the following example: “Either accept this truth or go without it.” But, according to our discussion above, even this would be a genuine option only when nonacceptance of the truth could be shown to exclude all ways of participating in it.
6. On the other hand, the terms do not connote something invariable. Pyrrhonism, as described by Sextus, is, after all, only one kind of sceptical philosophy according to the terminologies using *sceptical* in more or less broad senses. To

take an example, the existence of Carneades and sceptics adhering to his probabilism does not directly support the hypothesis that there also existed Pyrrhonists.

Chapter III: Scepticism and Positive Mental Health

1. Unless otherwise noted, this and all subsequent quotations in this section are from Jahoda (1958: 33–65). The book is a report written for the Joint Commission on Mental Illness and Health. Its purpose, according to the author, is “to clarify a variety of efforts to give meaning to this vague notion” of mental health. The qualification “positive” indicates that one is looking for something more than mere absence of illness.
2. By “sceptical personalities” I mean personalities with a more or less pronounced sceptical bent of mind. I am not thinking only of persons adhering to the radical scepticism of Sextus.
3. Jaspers (1946: 112 ff.) describes a case with obvious relevance for studies of states of *deep and general doubt*. It is plain from Jaspers’s classification of the sceptical frame of mind in his *Psychologie der Weltanschauungen* (1954) that his own psychopathological experience colors his perception of philosophical scepticism. Scepticism is classed as a form of nihilism and is clearly taken to be a form of deep and general doubt that is incompatible with mental health.

Chapter IV: Conceptual Complementarity of Evidence and Truth Requirements

1. Apparently Plato could only explain how such knowledge is generated by recourse to theories or myths about remembering: knowledge is not reached, but found introspectively in a way in which reaching for it is not called for.
 Aristotle in no way weakens the “Platonic” requirement that knowledge should comprise an absolute relationship to truth: Quite the contrary, he explicitly and repeatedly affirms that what is known is true, and that such knowledge (*epistémé*) is incorrigible. We only know things about which we *cannot* be mistaken. If truth is claimed, a kind of incorrigibility claim must follow (cf. *Nicomachean Ethics* 1956: 15–36). To say “I know it but *it* may be false” is strange, at best. I may admit that as a human being I am always fallible, but if I say “I know that *p*,” I must claim that *p*’s truth is incorrigible, or that I cannot even make sense of attributing corrigibility or incorrigibility to truth. A belief, a working hypothesis, is corrigible, but if *p* is accepted only as a good working hypothesis, I would not say “I know that *p*.”
2. Other representative subfamilies of such truth-requiring concepts of knowledge can be introduced by variation of interpretation of the “=” in a formula $A=B$, in which *A* is defined as “He knows that *p*” and *B* is defined as “He is

sure that p , he has adequate grounds for being sure, and p is true.” In this way the following kinds of sentences (among others) are constructed:

1. A means the same as B .
2. The criterion of A is B .
3. The necessary and sufficient condition of A is B .

As an example of an individual member of the family, we may take the following: “He knows that it rains” means the same as “He is sure that p , he has adequate grounds for being sure, and p is true.” The expression “means the same as” can be made more precise in various directions, for instance, by introducing references to particular people and situations: “ A means for P_1 in S_1 the same as B for P_2 in S_2 ”—or by introducing criteria of synonymy of various degrees of strength. In what follows, it is largely (but certainly not totally) irrelevant how the schema $A=B$ is interpreted. At least three possible functions should be distinguished: (1) use of the requirements for decisions concerning the *social* or *ethical justification* for calling, or of having called, a proposition knowledge. “You said you knew the gun was unloaded; were you entitled to do so, did you have adequate grounds?”; (2) use of the requirements as a *criterion* or *reminder* when deciding whether p is known or not; (3) use in defining what is meant by “ p is known.” The set of three requirements may function more or less well in these ways. But these functions must be carefully distinguished. It is dangerously misleading if, for example, one applies the requirements in ways (2) and (3) to our own momentary decisions.

3. In many cases the question is closely related to such questions as “Is N. N. aware of the fact that . . .” or “Does N. N. know it or is he ignorant of it?” The questionnaire is not intended to take care of this usage.
4. Efforts to make this formulation of Ayer’s more precise soon evoke a question: Does Ayer intend by “is the case” (in the phrase “knowing that something is the case”) something different from “be true” (in “to know to be true”)? If not, the first part of his formulation can be reformulated: “Thus necessary and sufficient conditions for knowing that something is the case are first that it is the case. . . .” The nonepistemological, purely ontological weight of “to be the case” makes the expression better suited to bringing out the difference between the first and the third requirement. The expression “to be true” has too many uses with epistemological shades. It very often resembles “to be (to have been) verified.”
5. It is interesting to note that positive answers to the questions “Is he sure that p ?” and “Is p true?” may, in a very natural way, be introduced by the phrase “I am perfectly convinced that . . .” but not so the synthesis “Do you *know* that p ?”
6. Some will object that the truth requirement is apt to enter anyway. How do I *know* that a specified standard is fulfilled? If this requires such and such to be the case, truth must be reached in the matter. There is no compelling reason,

however, why standard evidence should not replace truth here as well, if it can do such a thing at all. There remains the objection that the replacement would lead to an infinite regress. We must have adequate evidence that there is adequate evidence. . . . The objection is not a serious one, however, as long as it is not shown that the regress is vicious or fatal.

7. It is crucial that (1a), (1b), (1c) are *not* taken to introduce general concepts of the terms *knows*, *knew*, and *mistaken*. In order to make use of (1a), (1b), (1c), there must by definition be references to an N, N., a *t*, and a *p*, and these references must be part of the conceptualizations.
8. This would be better considering the frequent occurrence of an extremely high degree of evidence in relation to standards nevertheless combined with disbelief. Scientists with strong intuitions have been led to important discoveries through mistrusting evidence that has more than fulfilled the requirements of the scientific community—and they have sometimes stuck to a theory that has prestige in spite of counterevidence that seems completely compelling to later generations.
9. In my article “Can knowledge be reached?” (1961 [in SWAN VIII]), I did not sufficiently stress the difference between viewing the distinction between knowing and not knowing as inapplicable or inappropriate in certain situations and denying that knowledge (in certain senses) can be reached. As a consequence of this, I considered the negative answer to the question in the title automatically to *comprise* a kind of scepticism. It is more accurate to say that it may be used to support sceptical conclusions, but only if other premises are added.
10. “To say that I know . . . is not so much to report my state of mind as to vouch for the truth of whatever it may be” (Ayer 1956: 17).
11. The concept is introduced in my *Interpretation and Preciseness* (1953 [SWAN I]).

Chapter V: Dialectics of Modern Epistemological Scepticism

1. We should recall that some of the phrases (*fonai*) that Sextus calls sceptical do not, when uttered by sceptics, express any doctrine or view whatsoever.
2. Cf. especially Russell in *Human Knowledge* (1948) and Ayer in *The Problem of Knowledge* (1956).
3. In the following, the phrase “I know” is fairly consistently adhered to instead of the long series of phrases “I know,” “He knows,” “I knew,” “He knew,” “knowledge,” “It is known,” etc. Having made up one’s mind about the functions and use of “I know,” the conclusions on the other phrases are in the main predetermined—but only in the main. If one wishes to talk about all the expressions of the series, there turns out to be very little to say. However, there are so many differences to be noted that a painstaking exposition concerned with all these phrases would be rather confusing.

4. The comparison of relative severity of requirements across different situations or topics is extremely difficult. It would seem that the attempt to make such a comparison must lead to the construction of conceptual frameworks of methodology. However interesting in themselves, these throw little light on everyday (or even scientific) evaluation and comparison of standards. The whole idea of definite standards is, of course, to some extent an artificial creation; there is little basis in the everyday use of “I know” for that fiction—however useful it is in the debate on scepticism.
5. In this example, an individual modifies his requirements. In other cases, the group or community does. The use of “I know he does not cheat” is perhaps less restricted in Middletown because “it is now years since those shocking revelations—well, you remember.”
6. This sounds as if I were to say to myself, “From now on, do not use ‘I know’ in important matters.” The adjustments and modifications in usage are, of course, normally made without articulation. Freud would call them *prebewusst* (pre-conscious); there are no barriers to their being made conscious (as with the unconscious); they simply do not occur to one.
7. It is not entirely clear to me why general fallibility in the sense of “acute sense of general fallibility” should not rationally (“psychiatrically rationally”) prevent somebody using “I know” or adequately expressing his attitude by “I know nothing.” It all depends on the way of announcing “Alas! we are all of us always fallible” and “I know nothing.” If the announcement amounts to a knowledge claim, a position Sextus calls “Academic” (cf. chapter 1, pp. 4 and 11–12) is taken. There are some very strong objections to that position, some of them formulated by Sextus himself. If something less than a knowledge claim is made, and the way of announcement is consistent with one of Sextus’s “sceptical phrases,” I see no reason to reject “I know nothing.” According to some definitions of philosophy, it would not belong to philosophy, but that should not detract from the propriety of the expression.
8. One can learn by denotation or by connotation. “Perpetuum mobile,” “eternal bliss,” and many other expressions are learned by their connotations.
9. The same lack of clear distinction between social and cognitive factors goes back to the father of British commonsense philosophy, Thomas Reid (1941: vii, viii), who insists that if anything is self-evident, then “to desire more evidence is absurd,” and that this is a valid argument against sceptics. It is perhaps absurd to say “This is self-evident, let me look for more evidence,” but not “this fulfills standard requirements justifying the pronouncement ‘this is self-evident,’ but let us look for some additional evidence beyond that which is required.”
10. Of course, in what I have been saying in the foregoing, there is no doubting about the *justification* of saying “I verified it” in very many situations. What

has been discussed among verification specialists is verifiability in highly technical (in part purely logical) senses under maximum-requirement conditions.

11. One is reminded of the possibility of constructing infallible statements (“This is pink”) and fallible ones (“This is magenta”), or infallible (“This seems to me pink”) and fallible ones (“This is pink”). Do we really mean to say that here is an infallible difference?
12. Austin (1961: 66) says that “being aware that you may be mistaken doesn’t mean merely being aware that you are a fallible human being: it means that you have some concrete reason to suppose that you may be mistaken in this case. Just as ‘but I may fail’ does not mean merely ‘but I am a weak human being’ (in which case it would be no more exciting than adding ‘D. V.’): it means that there is some concrete reason for me to suppose that I shall break my word. It is naturally *always* possible (‘humanly’ possible) that I may be mistaken or may break my word, but that by itself is no bar against using the expressions ‘I know’ and ‘I promise’ as we do in fact use them.” Very well, but from using “I know” in a socially convenient way, it does not follow that anything is known. (Cf. our use of the terms *demon*, *devil*, *superhuman*, *eternal fame*, *never to be forgotten*, and so on.)
13. Suppose N. N. says, “Alas, I am always liable to be mistaken in whatever I say, but I know London is sometimes rather foggy,” would we not interpret this “but” to refer to an exception from the liability? That is, in his use of the term *know*, N. N. excludes the possibility of being mistaken.
14. It seems that Wittgenstein would deny the necessity of a conceptual framework here and hold that all “proper” use of the expression “not know” implies awareness of how to know.
15. Ayer (1956: 25) puts it elegantly: “[I]t is inconsistent to say ‘I know but I may be wrong.’ But the reason why this is inconsistent is that saying ‘I know’ offers a guarantee which saying ‘I may be wrong’ withdraws.” It is inconsistent, in a social sense, to give a guarantee and immediately withdraw it. Making a gift and withdrawing it are two actions related to each other in a particular way. But what is guaranteed in asserting “I know that *p*”? That it is so, that *p* is true. The wrongness referred to in the qualification “but I may be wrong” is then wrongness about *p*’s being true, that is, the falseness of *p*—that it is *not* as I say it is. This is the crux of the matter, not the inconsistency of two behaviors as such. However important it is not to neglect the performative aspect of “I know,” it is the cognitive inconsistency that counts in the debate on scepticism.
16. Stock answers would be to say that if the statement is true by convention, logically true, necessarily true, analytic, or a priori, then it is incorrigible. But the conventions referred to are mostly obscure and the relation between a convention and the statements said to be true by that convention are compli-

cated and far from “self-evident.” (Do statements that are true *solely* by convention express knowledge?) Similar things hold for the criteria that a statement is necessarily true, analytic, or a priori.

17. Cf. Kuhn, *The Structure of Scientific Revolutions* (1962). The basic sceptical and relativist framework of this book has been clearly pointed to by Paul K. Feyerabend (1965: 250).
18. I may say “ p was true, but is not true any longer.” Here the truth has not been corrected. It is still true that p was true. At time t , A says, “There is a rainbow toward the East”; at time $t + 1$, B says, “You are wrong, there is no rainbow,” at which A answers, “I was right. What I said was true but is no longer true.” That is, if I repeated it now, the statement would be false. If “It is true that p ” is retracted, not the truth but the belief is said to have been wrong.
19. It would be interesting to hear the personal experiences of university philosophers on this issue. All too little has been said about the personal background from which, in part, different points of view may be *understood*. Some sort of personal understanding is perhaps a necessary condition when judging fundamental positions in philosophy. At the opening of my own commonsense and trivialism period, I remember the shock I received looking at about 150 philosophers advancing toward the food placed on a big table at a congressional banquet. There were no characteristic differences in behavior, looks, talk, or speed corresponding to disagreements in their books. Later in life, I believe I have seen so much disconformism behind conformism and behind strikingly similar ways of behaving and talking in daily life that I am convinced that styles of life and general attitudes color everything—including the kind of statement I am making now.
20. The following remarks refer to Husserl (1913: sec. 32).
21. We have not discussed various subclasses of statements (empirical, logical, mathematical, analytic, necessary, and so on) because the arguments are in the main unaffected by the differences.

References

Books or articles appearing in the *Selected Works of Arne Naess* are identified by (SWAN XX) at the end of the entry, where XX refers to the pertinent volume number.

Works Cited

- Aristotle. 1956. *Nicomachean Ethics*, 1139b, with an English translation by Harris Rackham. The Loeb Classical Library. Cambridge, MA: Harvard University Press (London: Heinemann).
- Arner, Douglas. 1959. "On knowing." *Philosophical Review* 68.
- Augustine, St. 1961. *Confessions*, translated by R. S. Pine-Coffin. Baltimore: Penguin Books.
- Austin, John L. 1961. "Other minds." In *Philosophical Papers*. Oxford: Clarendon Press.
- . 1962. *Sense and Sensibilia*. Oxford: Clarendon Press.
- Ayer, Alfred J. 1956. *The Problem of Knowledge*. Harmondsworth: Penguin Books.
- . 1961. "A reply to Mr. Stigen." *Inquiry* 4, no. 4.
- Broad, Charlie Dunbar. 1925. *The Mind and Its Place in Nature*. London: Routledge and Kegan Paul.
- Brochard, Victor. 1887. *Les sceptiques grecs*. Paris: F. Alcan (Paris: J. Vrin, 1923).
- Chisholm, Roderick M. 1941. "Sextus Empiricus and modern empiricism." *Philosophy of Science* 8.
- . 1957. *Perceiving: A Philosophical Study*. Ithaca: Cornell University Press.
- . 1966. *Theory of Knowledge*. Foundations of Philosophy Series. Englewood Cliffs, NJ: Prentice-Hall.
- Didier, Julia. 1964. *Dictionnaire de la philosophie*. Paris: Larousse (Paris: Librarie Larousse, 1984).
- Feyerabend, Paul K. 1965. "Problems of empiricism." In *The Edge of Certainty*, edited by Robert G. Colodny. Englewood Cliffs, NJ: Prentice-Hall.

REFERENCES

- Gullvåg, Ingemund. 1964. "Scepticism and absurdity." *Inquiry* 7, no. 2.
- Hicks, Robert D. 1910. *Stoic and Epicurean*. London: Longmans Green.
- Hume, David. 1911. *A Treatise of Human Nature*, bk. 1, pt. 4. Everyman's Library Edition, vol. 1. London: J. M. Dent and Sons.
- . 1949. *A Treatise of Human Nature*, bk. 1, pt. 4, sec. 1, edited with an analytical index by Lewis A. Selby-Bigge. Oxford: Clarendon Press.
- . 1951. *An Enquiry Concerning Human Understanding*, 2d ed., edited with an introduction and analytical index by Lewis A. Selby-Bigge. Oxford: Clarendon Press.
- Husserl, Edmund. 1913. *Logische Untersuchungen*, 2d ed., vol. 1. Halle: Max Niemeyer-Verlag.
- Jahoda, Marie. 1958. *Current Concepts of Positive Mental Health*. New York: Basic Books.
- James, William. 1957. "The will to believe." In *Essays in Pragmatism*, edited with an introduction by Alburey Castell. New York: Hafner.
- Jaspers, Karl. 1946. *Allgemeine Psychopathologie*, 4th ed. Berlin: Springer Verlag.
- . 1954. *Psychologie der Weltanschauungen*, 4th ed. Berlin: Springer Verlag.
- Kuhn, Thomas S. 1962. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.
- Naess, Arne. 1953. *Interpretation and Preciseness: A Contribution to the Theory of Communication*. Oslo: Jacob Dybwad. (SWAN I)
- . 1961. "Can knowledge be reached?" *Inquiry* 4, no. 4. (in SWAN VIII)
- Pap, Arthur. 1949. *Elements of Analytic Philosophy*. New York: Macmillan.
- Pappenheim, Eugen. 1877. "Einleitung." In *Des Sextus Empiricus Pyrrhoneische Grundzüge*. Philosophische Bibliothek. Leipzig: Erich Koschny (L. Heimanns Verlag).
- Popkin, Richard H. 1967. "Skepticism." In *The Encyclopedia of Philosophy*, vol. 7, edited by Paul Edwards. London: Collier-Macmillan.
- Reid, Thomas. 1941. *Essays on the Intellectual Powers of Man*, edited and abridged by Anthony D. Woozley. London: Macmillan Co.
- Russell, Bertrand. 1914. *Our Knowledge of the External World as a Field of Scientific Method in Philosophy*. London: George Allen and Unwin.
- . 1945. *A History of Western Philosophy*. London: George Allen and Unwin.
- . 1948. *Human Knowledge: Its Scope and Limits*. London: George Allen and Unwin.
- . 1967. *The Problems of Philosophy*. Oxford University Paperback Series. Oxford: Oxford University Press (first published 1912).
- Ryle, Gilbert. 1949. *The Concept of Mind*. London: Hutchinson.

REFERENCES

- Sánchez, Francisco. 1988. *Quod nihil scitur* (Why nothing can be known), with introduction, notes, and bibliography by Elaine Limbrick; Latin text established, annotated, and translated by Douglas F. S. Thomson. Cambridge: Cambridge University Press.
- Sextus Empiricus. 1933. *Outlines of Pyrrhonism*, translated by Robert G. Bury. The Loeb Classical Library. Sextus Empiricus, vol. 1. London: W. Heinemann.
- . 1935. *Against the Logicians*, translated by Robert G. Bury. The Loeb Classical Library. Sextus Empiricus, vol. 2. London: W. Heinemann.
- . 1936. *Against the Ethicists*, translated by Robert G. Bury. The Loeb Classical Library. Sextus Empiricus, vol. 3. London: W. Heinemann.
- Spearman, Charles Edward. 1937. *Psychology Down the Ages*, vol. 1. London: Macmillan.
- Stigen, Anfinn. 1961. "Descriptive analysis and the sceptic." *Inquiry* 4, no. 4.
- Wasiutyński, J. 1963. *Universet*. Oslo: Universitetsforlaget.
- Wittgenstein, Ludwig Josef. 1958. *Philosophical Investigations*, translated by Gertrude E. M. Anscombe, 2d ed., sec. 246. Oxford: Basil Blackwell.

Other Works

- Ayer, Alfred J. 1956. "Philosophical scepticism." In *Contemporary British Philosophy*, edited by H. D. Lewis. The Muirhead Library of Philosophy. London: Allen and Unwin (New York: Macmillan).
- Bayle, Pierre. 1740. "Pyrrho." In *Dictionnaire historique et critique*, 5th ed., edited by P. Brunel et al. (Amsterdam); and in *The Dictionary Historical and Critical of Mr. Pierre Bayle*, British ed. (2d ed.), printed for J. J. and P. Knapton et al. (London, 1734), p. 38; translated and edited by Richard H. Popkin as *Pierre Bayle: Historical and Critical Dictionary, Selections* (Indianapolis and New York: Bobbs-Merrill, Library of Liberal Arts, 1965).
- Beropsky, Bernard. 1958. "Minkus-Benes on incorrigibility." *Mind* 67, no. 266: 264–66.
- Bevan, Edwyn. 1913. *Stoics and Sceptics: Scientific Theory*. Oxford: Clarendon Press.
- Castañeda, Hector-Neri. 1965. "Knowledge and certainty." *Review of Metaphysics* 18, no. 3.
- Chisholm, Roderick M. 1964. "Theory of knowledge." In *Philosophy*, edited by Roderick M. Chisholm et al., pp. 244–344. The Princeton Studies. Englewood Cliffs, NJ: Prentice-Hall.
- Cicero. 1933, 1951. *De natura deorum: Academica*, with an English translation by H. Rackham. The Loeb Classical Library. London: W. Heinemann.
- . 1951. *De finibus bonorum et malorum*, translated by H. Rackham. The Loeb Classical Library. London: W. Heinemann.

REFERENCES

- Colodny, Robert G., ed. 1965. *The Edge of Certainty*. Englewood Cliffs, NJ: Prentice-Hall.
- Goedeckemeyer, Albert. 1905. *Die Geschichte des Griechischen Skeptizismus*. Leipzig: Dietrich.
- Gullvåg, Ingemund. 1964. "Truth, belief and certainty." *Det kgl. Videnskaps Selskaps Skrifter*, no. 2. Trondheim.
- Harrison, Jonathan. 1962. "Knowing and promising." *Mind* 71, no. 284.
- Hegel, Georg W. F. 1807. *Die Phänomenologie des Geistes*. Bamberg and Würzburg: Joseph Anton Goebhardt.
- . 1833. *Vorlesungen über die Geschichte der Philosophie*, vol. 1. Berlin: Verlag von Dunder und Humblot.
- Heintz, Werner. 1932. *Studien zu Sextus Empiricus*. Schriften d. Königsberger gelehrten. Gesellschaft Sonderreihe bd. 2. Halle: M. Niemeyer.
- Hoffmeister, Johannes. 1955. *Wörterbuch der philosophischen Begriffe*, 2. Aufl. Hamburg: F. Meiner, p. 562.
- Hönigswald, Richard. 1914. *Die Skepsis in Philosophie und Wissenschaft. Wege zur Philosophie*. Schr. zur Einf. in das philos. Denken, Nr. 7. Göttingen: Vandenhoeck und Ruprecht.
- Maccoll, Norman. 1869. *The Greek sceptics from Pyrrho to Sextus*. London: Macmillan.
- Mannheim, Karl. 1929. *Ideologie und Utopie*. Bonn: F. Cohen. Translated as *Ideology and Utopia: An Introduction to the Sociology of Knowledge* by Louis Wirth and Edward Shils (New York: Harcourt, Brace and World, 1946).
- Montaigne, Michel Eyquem de. 1922. "L'apologie de Raymond Sebond." In *Les essais de Michel de Montaigne*, edited by Pierre Villey. Paris: F. Alcan.
- Natorp, Paul. 1884. "Protagoras, Demokrit, Epikur und die Skepsis." In *Forschungen zur Geschichte des Erkenntnisproblems im Altertum*, vol. 8. Berlin: Hertz (Hildesheim: G. Olms, 1965).
- Pappenheim, Eugen. 1881. *Erläuterungen zu des Sextus Empiricus Pyrrhoneischen Grundzügen*. Philosophische Bibliothek. Leipzig: Erich Koschny (L. Heimanns Verlag).
- . 1885. *Die Tropen der griechischen Skeptiker*, chaps. 1–3, sec. 6. Wiss. Beil. zum Programm des Köllnischen Gymnasiums. Berlin: R. Gaertners Verlagsbuchhandlung.
- . 1889. *Der angebliche Heraklitismus des Skeptikers Ainesidemos*, 30 s. Wiss. Beil. zum Programm des Köllnischen Gymnasiums. Berlin: R. Gaertners Verlagsbuchhandlung H. Heyfelder.
- Pascal, Blaise. 1961. *Pensées*, (Leon Brunschvicg ed.) with introduction and notes by Charles Marc Des Granges. Paris: Garnier Frères.

REFERENCES

- Patrick, Mary Mills. 1899. *Sextus Empiricus and Greek Scepticism*, Ph.D. diss. Cambridge: Deighton Bell and Co.
- Popkin, Richard H. 1950–51. "David Hume: His Pyrrhonism and his critique of Pyrrhonism." *Philosophical Quarterly* 1: 385–407. Reprinted in *Hume*, edited by Vere C. Chappell (Garden City, NY: Anchor Books, 1966), pp. 53–98.
- . 1951–52. "Berkeley and Pyrrhonism." *Review of Metaphysics* 5: 223–46.
- . 1952–53. "David Hume and the Pyrrhonian controversy." *Review of Metaphysics* 6: 65–81.
- . 1953–54. "The sceptical crisis and the rise of modern philosophy," parts 1, 2, and 3. *Review of Metaphysics* 8: 132–51, 307–22, 499–510.
- . 1955. "The sceptical precursors of David Hume." *Philosophy and Phenomenological Research* 16: 61–71.
- . 1964. *The History of Scepticism from Erasmus to Descartes*, rev. ed. University of Utrecht Publications in Philosophy. Assen, Netherlands: Van Gorcum and Co.
- . 1965. "The high road to Pyrrhonism." *American Philosophical Quarterly* 2: 1–15.
- Richter, Raoul. 1904–08. *Der skeptizismus in der philosophie*, vols. 1 and 2. Leipzig: Verlag der Dürschens buchhandlung.
- Robin, Léon. 1944. *Pyrrhon et le scepticisme grec*. Paris: Presses universitaires de France.
- Rokeach, Milton. 1960. *The Open and Closed Mind*. New York: Basic Books.
- Sextus Empiricus. 1840–41. *Sexti Empirici opera: Graece et Latine*, edited by Johann Albert Fabricius, Editio emendatio, 2 vols. Leipzig: B. G. Teubner.
- . 1912. *Opera*. Recensuit Hermannus Mutschmann, vol. 1. Pyrrhoniæ institutionum libri 3. Lipsiae: B. G. Teubner.
- . 1914. *Opera*. Recensuit Hermannus Mutschmann, vol. 2. Adversus dogmaticos, libri 5. Lipsiae: B. G. Teubner.
- . 1954. *Opera*. Recensuit Hermannus Mutschmann, vol. 3. Adversus mathematicos, with Greek text, libros 1–6 continens iterum ed. J. Mau. Lipsiae: B. G. Teubner.
- Strawson, P. F. 1953. "A. J. Ayer's *The Problem of Knowledge*." Critical notice in *Philosophy* 28.
- . 1959. *Individuals: An Essay in Descriptive Metaphysics*. London: Methuen (1961).
- Thomas, L. E. 1955. "Philosophic doubt." *Mind* 64, no. 255.
- Wagner, Hans. 1959. *Philosophie und Reflexion*. Munich: E. Reinhardt.
- Zeller, Eduard. 1865. *Die philosophie der Griechen in ihrer geschichtlichen entwicklung*. Leipzig: Fues Verlag.

Index

- Academic scepticism
 - Augustine's scepticism and, 63
 - defined, 4
 - dogmatic ways of announcement in, 11–13, 149n7, 155n7
 - modern scepticism and, 105
 - as negative dogmatism, 26, 142, 151n1
 - philosophers' evaluation of, 26, 142
 - rashness of, according to Pyrrhonist, 25, 142
 - reality unintelligible to, 51
 - self-reference and, 3
 - See also* dogmatism
- action, sceptics' views on, 24–25, 33
 - in Pyrrhonian scepticism, 35–43, 67, 151n3
- Aenesidemus, 150n14
- Agrippa of Nettesheim, 125
- Allport, Gordon, 58, 59, 68
- analytic statements, incorrigibility and, 156n16, 157n21
- appearances, in Pyrrhonian scepticism
 - acquiescence in, 8, 11, 31, 41–42, 107
 - essences and, 13, 15–16
 - knowledge not conveyed by, 31
 - Sextus's terminology for, 15, 16, 150n12, 150n13
 - subjectivism and, 15–16
 - truth and, 7, 15–16, 18, 41
 - utterances about, 8, 11, 13, 149n6
 - vs. reality, 50–52
- a priori knowledge, incorrigibility and, 156n16
- Aristotelian physics, relativism about, 134
- Aristotle, 73, 95, 139, 152n1
- Arner, Douglas, 121, 144
- ataraxia*. *See* peace of mind
- Augustine, St., 63
- Austin, John L.
 - on fallibility, 116–17, 130, 156n12
 - on incorrigible statements, 123–26
 - verification of, 128–29, 141
- against propositional universality of evidence
 - requirement, 74, 111
 - rejection of scepticism by, 142
- Ayer, Alfred J.
 - on knowledge claims, 71–72
 - inconsistency of qualifying claim, 156n15
 - requirements of, 80–82, 84, 111, 112, 115, 153n4
 - vouching for, 96, 117, 154n10
 - on scepticism, 33, 71–72, 142, 154n2
- behavior. *See* action
- belief
 - action and, 36–40, 43
 - evidence for, 45–46
 - experimentation with, by sceptic, 37–38, 39
 - incorrigibility not required for, 140–41
 - linguistic learning and, 119, 155n8
 - possibility of, for sceptic, 43–48
 - religious, 44–45, 46–47, 119
 - conversion to, 63–64
 - as requirement of knowledge, 71–72, 84–85
 - reaching knowledge and, 86, 93, 154n8
 - in sense data, Russell's views on, 22–23
 - variable meanings of, 43
 - ways of announcement and, 11, 12, 13
- Berkeley, George, 17, 150n14
- Broad, Charlie Dunbar, 138
- Brochard, Victor, 20, 21, 26
- Bury, Robert G., 7, 13, 21, 61, 149n2
- Carneades, 31, 151n6
- Cartesian scepticism, 137–38
- certainty
 - in Academic scepticism, 12, 25
 - belief and, 43
 - evidence for, 89, 118
 - in moderate, unphilosophical sceptic, 65

INDEX

- certainty (*continued*)
 - momentary, in Pyrrhonian sceptic, 24
 - right to make assertions vs., 120–23
 - uncertainty in modern science, 49–50
 - See also* incorrigibility
- Chisholm, Roderick M., 18–19, 80, 150n15, 151n4
- commonsense philosophy, 142, 155n9, 157n19
- Comte, Auguste, 150n14
- conceptual frameworks
 - definiteness of intention and, 94
 - empirical semantics as, 83
 - in modern scepticism, 105–08, 147
 - fallibility and, 130–31
 - incorrigibility requirement and, 135, 146
 - standards of evidence in, 110–11, 118, 143–44, 155n4
 - and Wittgenstein on use of expressions, 156n14
- in Pyrrhonian scepticism
 - avoidance of, 14–15, 18, 107
 - suspension of judgment (*epoché*) about, 34
 - talking loosely vs., 9–10, 11, 28
 - required for accepting propositions, 46
- contradiction, principle of. *See* principle of contradiction
- Cyrenaics, subjectivism of, 17–18
- definiteness of intention
 - directions of precization and, 97–98, 100–101
 - general idea of, 11, 96–97
 - of knowledge expressions, 94, 97, 98–103
 - in dialogue, 109
 - principle of limitation and relativity of, 100
 - in Pyrrhonian scepticism is of low degree, 10–11, 15, 16, 107
 - See also* precization
- Democritus, 151n1
- Descartes, René, 132
 - existence of external world and, 137–38
 - methodical doubt of, approved by Russell, 22
 - phenomenalism of, vs. Sextus's appearances, 15
- dialogues, standards of evidence in, 108–10, 145
 - conclusive evidence, 121
 - incorrigibility requirement, 135, 144, 146
 - for introspective accounts, 112
- Didier, Julia, 150n14
- Diogenes Laertius, 54
- dogmatic ways of announcement, 11–13, 149n7, 155n7
- dogmatism
 - doubting promoted by, 48
 - in Hume's writings, 13–14, 150n11
 - negative, 26, 142, 151n1
 - obligation of dogmatist to reconsider, 25
 - in philosophies of Sextus's time, 50
 - Pyrrhonian sceptic's arguments with, 20, 21, 29, 31, 49
 - wider sense of, 4
 - Wittgensteinian does not accept as meaningful, 30
 - See also* Academic scepticism
- Dogmatists, 3, 4
- doubt
 - Descartes's methodical doubt, 22
 - of dogmatist induced by Pyrrhonian sceptic, 31
 - psychopathology associated with, 64, 68, 152n3
 - of Pyrrhonian sceptic, 24–25, 26, 39, 48–49
 - sceptical, serious vs. theoretical, 33
 - suspension of judgment (*epoché*) distinguished from, 26, 39, 49
- dualism. *See* external world
- Duhem, Pierre, 50
- empirical semantics. *See* definiteness of intention; precization; questionnaires
- empiricism
 - of Hellenic physicians, 62
 - standards of evidence and, 127
 - twentieth-century
 - Sextus's Pyrrhonism and, 19
 - truth claims and, 28
 - See also* appearances; sense data
- epistemological scepticism. *See* modern scepticism
- epoché*. *See* suspension of judgment
- essence, in Sextus's Pyrrhonism, 12, 13, 16
- evidence
 - conclusive, 120–23, 127–28, 155n9
 - Wittgensteinian interpretation of, 29
 - as knowledge requirement, with truth, 71–73
 - complementarity of truth and evidence, 75–76, 84, 85, 102–03
 - definiteness of intention and, 94, 97–102
 - game analysis of, 83
 - irrelevance of evidence in some situations, 73–74
 - questionnaires about, 78–83, 153n3
 - rational reconstructions of, 83–85
 - reaching knowledge and, 73–75, 76–77, 85–88, 93–95, 102
 - shifts of ground with, 76–78, 84,

INDEX

- 153n5
 - without separate truth requirement, 87–93, 153n6, 154n7, 154n8
- Pyrrhonist's attitude toward, 45–46
- for scientific propositions, 95–96
- truths that do not rest on evidence, 95
- See also* knowledge, definitions of; standards of evidence
- the evident, 8
- external world
 - dualism about internal world and Cartesian, 137–38
 - Pyrrhonian sceptic and, 16, 34, 138
 - Russell's assumption of, 34, 151n2
- existence of
 - Ayer on scepticism about, 71–72
 - Moore's antisceptical position, 136–37
 - as problem in history of scepticism, 17, 150n14
 - suspension of judgment about, 17, 137
- See also* appearances; reality
- faith, religious, 45, 47
- fallibility
 - abstaining from knowledge claims because of, 116–17, 155n6, 155n7
 - incorrigibility and, 129–31, 132, 156n11, 156n12, 156n13
- Feyerabend, Paul K., 157n17
- Freudian analysis, scepticism resulting from, 68–69
- Freud, Sigmund, 97, 155n6
- game analysis, of knowledge claims, 83
- Gullvåg, Ingemund, 150n11
- Hegel, Georg W. F., 150n14
- Heraclitus, 54
- Hicks, Robert D., 17, 150n14
- Huet, Pierre-Daniel, 45
- Hume, David
 - on belief, 43
 - dogmatic tendencies of, 13–14, 150n11
 - moderate scepticism approved by, 22
 - social autonomy of, 60–61
- Husserl, Edmund, 142–43, 157n20
- incorrigibility
 - beliefs do not require, 140–41
 - defined, 106
- fallibility and, 129–31, 132, 156n11, 156n12, 156n13
- fluctuations in standards for, 126–27, 143–44
- requirement, 131–32, 156n15
 - unsatisfiability of, 133–43, 144, 146–48
- scientific knowledge is corrigible, 131–32
- supposed examples of, 123–29
 - logical truths as, 143, 156n16, 157n21
- of truth, 106, 139, 152n1, 157n18
- truth vs., 89
- See also* certainty; standards of evidence
- isosthenia* (state of mental suspense), 5, 6, 20, 27
- Jahoda, Marie, 57, 58, 59, 60, 61, 152n1
- James, William, 68
 - on belief measured by action, 37, 43, 44–45, 47
 - living options and, 46, 151n5
- Jaspers, Karl, 17, 152n3
- Jeans, James, 141
- justification
 - maximum requirements of evidence for, 111
 - in modern epistemology, 105–08
 - by shifts to evidence requirement, 76, 77
 - verification distinguished from, 144
- See also* evidence
- Kant, Immanuel, 25, 142
- Kierkegaard, Søren, 47
- knowledge
 - abstaining from claims of
 - in certain circumstances, 93–96
 - fallibility as motivation for, 116–17, 155n6, 155n7
 - linguistic counterargument to, 118–20
- definitions of, with three requirements, 71, 78, 152n2
 - Ayer's use of "is the case" in, 80, 153n4
 - in Husserl's refutation of scepticism, 142
- precizations of, 98–101
- questionnaires and, 78–83, 153n5
- rational reconstructions and, 84–85
- reaching knowledge and, 85–87, 93
- introspection as source of, 111, 112
 - Sextus's views on, 18, 74, 151n1
- knowing distinguished from, 132
- possibility of
 - denied by modern sceptic, 105
 - despite conceptual problems, 72, 93, 103, 154n9
 - in face of sceptic's arguments, 33

INDEX

- knowledge (*continued*)
- in Pyrrhonian scepticism
 - as an ideal, 58
 - appearances do not convey knowledge, 19, 31
 - suspension of judgment about, 95–96, 102–03
 - reaching, by increase in evidence, 73–75, 76–77, 85–88
 - everyday communication and, 93–95, 102
 - Plato does not require, 152n1
 - scepticism and, 154n9
 - requirements of, belief as one of, 71–72, 84–85
 - reaching knowledge and, 86, 93, 154n8
 - requirements of, truth and evidence as, 71–73
 - complementarity of truth and evidence, 75–76, 84, 85, 102–03
 - definiteness of intention and, 94, 97–102
 - game analysis of, 83
 - irrelevance of evidence in some situations, 73–75
 - questionnaires about, 78–83, 153n3
 - rational reconstructions of, 83–85
 - reaching knowledge and, 73–75, 76–77, 85–88, 93–95, 102
 - shifts of ground with, 76–78, 84, 153n5
 - without separate truth requirement, 87–93, 153n6, 154n7, 154n8
 - sceptical locutions about (“I know nothing”)
 - in epistemology vs. everyday life, 123, 138, 143–44, 146–47
 - linguistic analysis of, 118–20
 - sense data as, 22–23, 126
 - variations in phrasing about, 154n3
 - See also* incorrigibility; scientific knowledge; standards of evidence
- Krueger, David, 129
- Kuhn, Thomas S., 157n17
- logical empiricists, truth claims and, 28
- Maslow, Abraham H., 58–59, 61
- mature sceptic
- ad hoc nature of scepticism in, 27
 - defined, 6, 24, 149n3
 - development of
 - according to Sextus, 3–6, 26, 62–63
 - from modern unified outlook, 52–53, 55, 68–69
 - possibility of, 53–55
 - dogmatism in, transitory, 11, 13
 - requirements for being regarded as, 23–26
- See also* Pyrrhonian scepticism
- mental health, 57–69
- criteria of, confronting scepticism, 57–62, 152n1
 - of moderate, unphilosophical sceptic, 64–66
 - personalities disposed to scepticism, 62–64, 152n2
 - psychological distress associated with scepticism, 63–64, 68, 152n3
 - psychotherapy involving sceptical issues, 66–69
- mental suspense (*isosthenia*), 5, 6, 20, 27
- Mill, John Stuart, 127
- modern scepticism, 105–08
- conceptual frameworks in, 105–08, 147
 - fallibility and, 130–31
 - incorrigibility requirement and, 135, 146
 - standards of evidence in, 110–11, 118, 143–44, 155n4
 - and Wittgenstein on use of expressions, 156n14
- conclusions on, 143–48
- dialectical nature of, 108
- vs. Pyrrhonian scepticism, 4, 105, 107
- See also* incorrigibility; standards of evidence
- Moore, George E., 136
- Naess, Arne
- definiteness of intention introduced by, 154n11
 - as metasceptic, 147, 148
 - on peace of mind of mature sceptic, 149n3
- necessary truth, incorrigibility and, 156n16, 157n21
- Neothomism, probabilism and, 50
- Neurath, Otto, 79
- Newton, Isaac, 132
- Nietzsche, Friedrich, 17
- nihilism, confused with scepticism by Jaspers, 17, 152n3
- the nonevident, 8, 13, 142
- Pap, Arthur, 136, 137, 138
- Pappenheim, Eugen, 7, 16, 149n1, 149n2, 149n8
- peace of mind (*ataraxia*)
- of mature sceptic
 - development of, 3, 5, 6, 25, 53
 - doubt alleviated by, 26
 - preservation of, 31, 39
 - metaphysical statements interfere with, 19, 150n15
 - of sceptic in conformist society, 62

INDEX

- See also* suspension of judgment (*epoché*)
 perception. *See* appearances; sense data
 phenomenalism, neutrality of Pyrrhonism toward, 14–19
 phenomenology, rejection of scepticism in, 142–43
 Piaget, Jean, 67
 Plato, 10, 25, 50
 on knowledge, 73, 123, 152n1
 Plotinus, 151n1
 politics, sceptical influence on, 69
 Popkin, Richard H., 30–31, 45, 46
 Popper, Karl R., 50
 pragmatism, 68, 73
 Prantl, Karl von, 134
 precisization, 97–98
 of concepts of external world, 138
 directions of, 97–98, 100–101
 of “I know that *p*,” 98–102
 of “one must be sure,” 100, 101
 See also definiteness of intention
 principle of contradiction
 does not rest on evidence, 95
 in German philosophy, 142
 truth and, 139
 probabilism
 conceptualization of, 92
 of dogmatist, 14
 Pyrrhonian scepticism rejects, 11, 13, 27, 31, 38
 about scientific knowledge, 50
 Protagoras, 54
 psychology
 standards of evidence in, 112
 See also mental health; scepticism, psychological possibility of
 Pyrrho, 2, 15, 26, 45, 150n14
 Jaspers on, 17
 Russell on, 34, 151n1
 Pyrrhonian scepticism
 ad hoc nature of, 21, 27
 arguments and counterarguments in, 6, 20–23, 29, 31
 conceptual frameworks in
 avoidance of, 14–15, 18, 107
 suspension of judgment (*epoché*) about, 34
 vs. talking loosely, 9–10, 11, 28
 conclusions about, 147–48
 defined, 6, 24, 149n3
 development of mature sceptic in, 3–6, 26, 62–63
 dogmatic cultural environment of, 50
 dogmatism in, transitory, 11, 13
 doubt in, 24–25, 26, 39, 48–49
 evidence and, 45–46
 existence of, in Sextus’s time, 54, 151n6
 inadequate accounts of, 1, 2, 17, 30–32
 knowledge in
 appearances do not convey knowledge, 19, 31
 as an ideal, 58
 suspension of judgment about, 95–96, 102–03
 modern scepticism vs., 4, 105, 107
 as a philosophy, 26–30, 59–60
 possibility of, 53–55
 probabilism rejected in, 11, 13, 27, 31, 38
 rashness charge against dogmatism by, 25, 142
 rejected by British and German philosophy, 142
 requirements to be regarded as Pyrrhonist, 23–26
 Russell’s “sceptical solipsism” vs., 34, 151n1
 science is compatible with, 49–50
 social relations of sceptic, 5, 55, 60, 62
 superiority of, in consistency and radicalness, 1
 supported by complementarity of truth and evidence, 103
 and trust, 30
 in everyday realism, 34, 137
 in one’s own impulses, 67
 vs. doubt, 24–25
 truth in
 appearances and, 7, 15–16, 18, 41
 as goal, 5, 58
 is not asserted, 6
 misinterpreted by Brochard, 20–21
 reduced need for, 48
 seeking of, 25
 suspension of judgment about, 20–21, 23, 25, 26, 28, 58
 true/false distinction retained, 28
 See also appearances; Sextus Empiricus; suspension of judgment (*epoché*); ways of announcement
 questionnaires, about requirements of knowledge, 78–83, 153n3
 radical scepticism
 ad hoc nature of, 21
 justification of, 72
 radical scepticism (*continued*)

INDEX

- mental health and, 57, 69
 - Pyrrhonism as, 1, 6, 30, 31–32
 - rarity of, 65
 - See also* Pyrrhonian scepticism
- reality
 - scepticism about real nature of things, 30–31
 - suspension of judgment about, 51
 - ways of announcement and, 12
 - See also* appearances; external world
- Reid, Thomas, 155n9
- relativism, about scientific knowledge, 134, 157n17
- religious beliefs
 - conversion to, 63–64
 - justification of, according to James, 44–45
 - of sceptic, 44, 45, 46–47
 - use of knowledge expressions and, 119
- Riesman, David, 60
- Rousseau, Jean Jacques, 60–61
- Russell, Bertrand, 79, 151n2, 154n2
 - on belief, 22, 40, 43, 46
 - on Descartes's methodical doubt, 22–23
 - on psychological impossibility of scepticism, 34, 151n1
- Ryle, Gilbert, 36–37
- Sanches, Francisco, 119
- sceptical ways of announcement. *See* ways of announcement, sceptical
- scepticism
 - approximation to, 54–55
 - Cartesian, 137–38
 - circularity of, alleged, 120
 - duration of, for individual, 54
 - of Hume, 13–14, 22, 150n11
 - incorrigibility and, 136–38, 141–42
 - knowledge requirements and, 71–72, 154n9
 - linguistic counterargument to, 118–20, 155n8
 - logical impeccability of, 33–35, 105
 - mental health and, 57–69, 152n2, 152n3
 - moderate, unphilosophical version of, 64–66
 - psychological possibility of, 33–55
 - actions and, 33, 35–43, 151n3
 - appearance vs. reality and, 50–52
 - belief and, 36–40, 43–48
 - conclusions about, 54–55
 - doubt and, 33, 39, 48–49
 - logical impeccability and, 33–35
 - with modern unified outlooks, 52–53, 55, 68–69
 - Russell on, 34, 151n1
 - scientific knowledge and, 49–50
 - for Sextus's mature sceptic, 53–55
 - rejected by British and German philosophy, 142–43
 - science is compatible with, 49–50, 96
 - social and political implications of, 69
 - unified outlooks conducive to, 52–53, 55, 68–69
 - variable usages of the term, 2–3, 31–32
 - See also* Academic scepticism; modern scepticism; Pyrrhonian scepticism; radical scepticism
- scientific knowledge
 - corrigibility of, 131–32
 - performative function irrelevant in, 135
 - probability and, 50
 - relativism about, 134, 157n17
 - scepticism is compatible with, 49–50, 96
 - standards of evidence for, 90, 92, 95–96
 - disbelief and, 154n8
 - fluctuations in, 109–10, 155n4
 - maximum requirements, 112
 - truth in relation to, 28, 49–50, 95–96
- self-actualization, 58
- self-evidence, 155n9
- self-reference, in Pyrrhonian scepticism, 3
- semantics, empirical. *See* definiteness of intention; precization; questionnaires
- sense data
 - incorrigibility of statements about, 126
 - Russell on, 22–23
 - See also* appearances
- Sextus Empiricus
 - on appearances, 15–18, 41
 - on arguments of sceptic, 20–22
 - on belief, 43, 44
 - on development of mature sceptic, 5–6, 26, 27, 53, 149n1
 - dogmatic scepticism and, 4, 14, 25, 26, 142, 151n1
 - on dogmatic ways of announcement, 11–13
 - doubt and, 26, 48
 - as expositor of Pyrrho's scepticism, 1–2
 - knowledge requirements and, 74, 102–03, 128
 - mental health and
 - criteria for, 58, 60, 61, 62
 - psychopathology, 64
 - sceptical personalities, 65, 67, 152n2

INDEX

- modern philosophers' misunderstandings of, 18–19, 20–21, 23, 30–31, 105, 120
- on sceptical ways of announcement, 6, 7–11, 150n10, 154n1, 155n7
- on sceptics existing in his time, 54, 151n6
- science and, 49–50
- suspension of judgment and, 21, 38–39, 52, 143
- truth and, 20, 48
- See also* Pyrrhonian scepticism
- Socrates, 5, 28
- solipsism, sceptical, Russell on, 34, 151n1
- Spearman, Charles Edward, 112
- Spinoza, Benedictus de (Baruch), 25, 27
- standards of evidence
 - in epistemology vs. everyday usage, 107
 - fluctuations in, 125, 126–28, 143–45, 155n4, 155n5
 - in collectivities, 115
 - in dialogues, 109–10, 144, 145
 - incorrigibility requirement and, 133
 - maximum requirements, 110–13
 - in face of mistakes, 113–18, 155n6
 - with finite series of tests, 128–29
 - in precization of “I know that *p*,” 98–99
 - in science, 90, 92, 95–96
 - disbelief and, 154n8
 - fluctuations in, 109–10, 155n4
 - maximum requirements, 112
 - without truth requirement lead to paradoxes, 88–92
 - See also* evidence; incorrigibility
- Stigen, Anfinn, 144
- Stoics, 7, 19, 50, 134
- subjectivism
 - of Cyrenaics, 17–18
 - knowledge claims and, 73
 - neutrality of Pyrrhonism toward, 14–19
- suspension of judgment (*epoché*)
 - action and, 67
 - ad hoc nature of, 25, 27
 - belief and, 38, 44
 - about conceptual frameworks, 34
 - defined, 38
 - doubt distinguished from, 26, 39, 49
 - about existence of external world, 17, 137
 - about knowledge in three situations, 95–96, 102–03
 - loss of, 23, 53–54
 - peace of mind and, 5, 6, 26, 39
 - about phenomenalism or subjectivism, 15, 16, 17
 - philosophers' rejection of, 22, 143
 - about propositions, 38–39
 - psychotherapeutic encouragement of, 67
 - about reality, 51
 - about truth, 20–21, 23, 25, 26, 28, 58
 - See also* mental suspense (*isosthenia*); peace of mind (*ataraxia*)
- transintentional entities, 98
 - knowledge requirements as, 101
- truth
 - in Academic scepticism, 12
 - actions do not imply commitment to, 37, 42–43
 - in Aristotle's analysis of knowledge, 152n1
 - of first principles, 95
 - incorrigibility of, 106, 139, 152n1, 157n18
 - of incorrigible statements, 89
 - as knowledge requirement, with evidence, 71–73
 - complementarity of truth and evidence, 75–76, 84, 85, 102–03
 - definiteness of intention and, 94, 97–102
 - game analysis of, 83
 - irrelevance of evidence in some situations, 73–74
 - questionnaires about, 78–83, 153n3
 - rational reconstructions of, 83–85
 - reaching knowledge and, 73–75, 76–77, 85–88, 93–95, 102
 - shifts of ground with, 76–78, 84, 153n5
 - without separate truth requirement, 87–93, 153n6, 154n7, 154n8
- necessary, 156n16, 157n21
- in Pyrrhonian scepticism
 - appearances and, 7, 15–16, 18, 41
 - as goal, 5, 58
 - is not asserted, 6
 - misinterpreted by Brochard, 20–21
 - reduced need for, 48
 - seeking of, 25
 - suspension of judgment about, 20–21, 23, 25, 26, 28, 58
 - true/false distinction retained, 28
- scientific, 28, 49–50, 95–96
- true/false distinction
 - in Pyrrhonian scepticism, 28
 - relativism about, 134

INDEX

truth (*continued*)

- Wittgensteinian views on, 28, 29–30
- See also* certainty; incorrigibility; knowledge, definitions of

verification

- Austin's analysis of, 128–29
- justification distinguished from, 144
- in maximum-requirement conditions, 155n10

See also evidence

vouching for a statement

- Ayer on, 96, 117, 154n10
- does not apply in science, 96, 135
- in precization of “I know that *p*,” 98
- Pyrrhonian sceptic refrains from, 12
- social aspect of, 117, 118

Wasiutyński, J., 125

ways of announcement

- dogmatic, 11–13, 149n7, 155n7
- sceptical, 7–11, 13
 - adoxastos* and *adioforos* in, 11, 150n9
 - apangello* and related words in, 7, 149n4
 - dokeo* in, 11–12, 150n10
 - foné* in, 7–8, 9, 102, 149n5, 149n8, 154n1
 - formulas, phrases, or sayings in, 6, 8–9, 26, 151n1
 - “I do not know anything” as, 120, 155n7
 - perception and, 8, 149n6
 - profero* in, 9, 149n7

Wittgenstein, Ludwig

- on introspective knowledge, 111
- truth claims and, 28, 29–30
- use of “not know” and, 156n14

Arne Naess was born in Slemdal, Norway, in 1912. One of Norway's foremost philosophers, known especially for his innovative eco-philosophy, Naess began his work with peace studies, global justice, and human rights, and continued with environmental matters. The subjects of his scholarly work and interests include empirical semantics, logic and foundations of science, communication theory and practice, Spinoza, scepticism, gestalt ontology, and normative systems theory. Naess's contributions have been honored by many awards, including Norway's Peer Gynt Award, Denmark's Sonning Prize, the Nordic Council Award for Nature and Environment, the Uggla Prize for Humanistic Studies from Stockholm University, and the Mahatma Gandhi Prize for Non-violent Peace.

Naess graduated from the University of Oslo in 1933, studied in Paris and Vienna, and became the youngest person appointed to a full professorship of philosophy at the University of Oslo, where he worked from 1939 to 1969. Since 1970, he has continued his work as a philosopher, naturalist, and environmental activist. He has been involved with the University of Oslo's Center for Development and the Environment since 1991. The Arne Naess Chair in Global Justice and the Environment is being established at the university to encourage scholars to engage creatively with Naess's work and ideas, in particular to promote new insights into environmental issues and the challenges posed by globalization, and to develop ideas that will help to humanize the difficult and conflict-laden transition to sustainability. Naess holds honorary doctorates from Stockholm University and The Norwegian National University of Sports and Physical Education. He is also an honorary member of The Norwegian Alpine Club and The Norwegian Tourist Association.

In addition to writing countless articles and essays that have been translated into several languages and have appeared in anthologies and journals throughout the world, Naess is the author of numerous books, including *Life's Philosophy: Reason and Feeling in a Deeper World* and *Ecology, Community and Lifestyle*. He was founder and editor of the journal *Inquiry*, and has lectured in many countries. As a mountaineer, Naess was the first to climb Tirich Mir in Pakistan. In the 1930s, he built a hut on Hallingskarvet Mountain in Norway, where he spent much time reflecting upon and relating to the surroundings and native plants of his retreat. His respect and appreciation for diversity, wonderment, and our relationship to

the natural world has continued throughout his life and is reflected in the spirit of his work.

Naess currently lives in Oslo with his wife, Kit-Fai.

Harold Glasser, Ph.D. is Associate Professor of Environmental Studies at Western Michigan University in Kalamazoo, Michigan. He has been a visiting Senior Fulbright scholar at the Center for Development and Environment and Department of Philosophy, University of Oslo; a Resource Person for the United Nations University–Institute of Advanced Study; a visiting researcher at the International Institute for Applied Systems Analysis; and a lecturer at Schumacher College. He has written on environmental philosophy, policy, and planning, as well as green accounting, education for ecological sustainability, and campus sustainability assessment.

Alan R. Drengson, Ph.D. is Emeritus Professor of Philosophy at the University of Victoria, in Victoria BC Canada. He is a former Director of Environmental Studies and is currently an Adjunct Professor of Graduate Studies. He is the author of numerous articles, reviews, and books, as well as the editor of three anthologies and the founding editor of two journals, *The Trumpeter: Journal of Ecosophy* and *Ecoforestry*.

Designed by Tamotsu Yagi Design
Composed by Ralph Fowler and BookMatters in Garamond 3
Printed by Krips, Meppel on Cyclus Offset 90 gr/m²
Bound by Callenbach, Nijkerk in Elite and stamped with Colorit 922

Notes

Chapter I: Descriptions of Maximally Comprehensive Perspectives

1. “We use the term *world pictures* to refer to that which for human beings has object character, that which confronts the mind and is conceived of as expressions of the power of the mind. World pictures are capable of being described as something objective in the same way as rooms or houses; spiritual kinds of views have such pictures as their essential form of expression and their necessary condition, but the nature of the forces creating worldviews is such that it does not always express them as object-directed, they are also expressed as value hierarchies” (Jaspers, 1919: 161).
2. This quotation from Koestler (1949: 68) is used by Polanyi in a similar context (1952: 218).
3. A Cretan says: “All Cretans always lie.” Is this sentence true?
4. Russell’s antinomy concerns the class of all classes that are not members of themselves. Is this class a member of itself? If it is, then it is not, and if it is not, then it is. Hence it both is and is not a member of itself: a contradiction.
5. For a criticism of the doctrine that different logics can be described in the way attempted by some social scientists, see Naess, et al. (1956: 203 ff.).
6. See chapters 1–4 of *Outlines of Pyrrhonism* in Sextus Empiricus (1933–44). Most authors connect the word *scepticism* with Academic scepticism, or more pertinently, negativism. The Pyrrhonic sceptic, however, can subject all of his own arguments and their presuppositions to examination. But he may participate in the *presupposition-research* that thereby results without pretension of (true) knowledge of what the presuppositions are—indeed without beforehand *denying* (with claim to truth for the denial) that a philosopher who says that not *everything* has presuppositions may be right.

The one who does research seeks. The one who seeks can stop and ask himself, Exactly what am I looking for? If it is a thumbtack, the answer is rather simple. But if it is the “presuppositions of all questioning,” it is not simple. If he stops long enough, he gets at least one new task of research.

For the external spectator, it may often seem as if the questioner, by us-

ing certain distinctions in the question-formulation itself, presupposes that certain answers are *definitively* decided, but the questioner does not need to have a definite answer, he may have a questioning (not-definitively-deciding) basic attitude, an attitude characterized by the fact that any answer with him seems to acquire a nondefinitive status. For example:

Sceptic: Is *perleungetunge* a kind of cactus?

Dogmatist: Aha, you presuppose the existence of *perleungetunge* !

Sceptic: I read about them. I have neither time nor capacity to take a definitive standpoint to the truth of everything that I read. But I have much *trust*; that much I grant you willingly.

7. See Jaspers (1919); the fourth edition (1954) has an interesting foreword concerning the evolution of Jaspers's ideas.
8. For an example of such a debate, see the discussion between Naess and Sir Alfred Ayer on Empiricist vs. total views in "The Glass Is on the Table," which originally appeared in *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders (1974 [in SWAN VIII]).
9. A method for successively more adequate—and therefore complicated—presentation of an ethical system is described in chapter 3 of my *Gandhi and Group Conflict* (1974 [SWAN V]).
10. Page references to the work of Nordenstam refer to his unpublished doctoral dissertation, "An Analysis of the Traditional Sudanese Virtues" (1968b).
11. Translation of "Erscheinungen für uns." The formulation of Hegel's system follows in the main Ueberweg (1898–1903, vol. 4).
12. Formulated in all essentials in accordance with the formulations in Ueberweg (1898–1903, vol. 4).

Chapter II: Comparison of Different Total Views

1. Generally, this cannot be claimed entirely, since the near-total systems perceive the other within the system (in the widest sense), and therefore do not reach "all the way" out to the outsider.
2. It is essential to believe that when one looks at the first page of the *Ethics* and reads the first sentence, one is confronted with "Spinoza's doctrine itself." It is merely required that one understands Latin.
3. On the different substance concepts of Descartes and Spinoza and their relationship to the things they derive, see an interesting but somewhat unclear note by J. Bennett (1965: 379–80).
4. Leibniz employs two of the Aristotelian substance criteria—substance as the place of change and substance as logical subject—but adds a concept of non-composedness. In the first paragraph of the *Monadology* he defines monad as

“nothing but a simple substance . . . ; *simple*, that is to say, without parts.” Elsewhere, Leibniz has stated that Spinoza would have been right if there were no monads and he also probably intended to stress the need for a substantial basis in the things different from God (see Leibniz’s “Refutation of Spinoza” in Leibniz [1908]).

Chapter III: Metaphysics as Exposure of Presuppositions

1. This section makes extensive use of David Rynin’s article “Donagan on Collingwood: Absolute Presuppositions, Truth, and Metaphysics” (1964), in which Rynin convincingly repudiates Alan Donagan’s (1962) narrow-minded criticism of the prolific and discerning British philosopher R. G. Collingwood. Donagan criticizes Collingwood’s *Essay on Metaphysics* (1940) on the basis of a kind of naive empiricism seldom encountered among philosophers since John Dewey’s glory days. According to Donagan, systems can be verified or falsified by comparing them with experience: “The principle of theoretical simplicity enables us to subject not only answers to questions, but whole complexes of questions and answers, to the verdict of experience. When one whole complex is rejected in favour of another, its absolute presuppositions are rejected along with it; like the answers contained in that complex, they are rejected as false” (1962: 82). Here it is presupposed that when empirical tests are conceptually articulated, system differences will not result in articulation differences.
2. On the relevance of differences in truth definitions, truth criteria, and methodology, I have expressed my opinion in connection with the question of whether we *know* that norms *cannot* be true or false; see Naess (1962 [in SWAN VIII]).

Chapter IV: Can There Be, Ultimately, Only One Valid Total System?

1. If this is correct, one may say that Aristotle is about to make his basic view analytic. Perhaps it is a tendency of precisely the deepest premises that they seem obvious because they are analytical (for that purpose), while they simultaneously pretend to constitute the point of departure of a philosophy as a synthetic statement. If the statement is perceived as synthetic by opponents who question it, it is defended by being interpreted in such a direction that it becomes analytic. The tendency, however, can also be the reverse: one perceives something as analytic *because* it appears evident and fundamental.

Chapter V: Cultures Construed as All-Embracing Systems

1. Because Barth’s (1977) article is only five pages long, I have omitted page numbers in the many references that follow.

NOTES TO PAGES 109–117

2. In “Reflections About Total Views” (1964 [in SWAN X]), I try to show that whatever one asserts (or denies), be it ever so modest, one presupposes a total system in doing so.
3. The example is taken from Geertz (1973: 121), where the sentences in question are related to the conception, in cultures, of the basic nature of reality.

References

Books or articles appearing in the *Selected Works of Arne Naess* are identified by (SWAN XX) at the end of the entry, where XX refers to the pertinent volume number.

- Ayer, Sir Alfred and Arne Naess. 1974. "The glass is on the table." In *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders. London: Souvenir Press. (in SWAN VIII)
- Barth, Fredrik. 1975. *Ritual and Knowledge Among the Baktaman of New Guinea*. Oslo: Universitetsforlaget.
- . 1977. "Et samfunn må forstås ut fra egne fortutsetninger (A society must be understood on the basis of its own assumptions)." In *Sosialantropologi*, A mimeographed collection of articles for students. Oslo: Universitetsforlaget, pp. 5–9.
- Bateson, Gregory. 1972. *Steps to an Ecology of Mind*. San Francisco: Chandler Publishing Company.
- Bennett, Jonathan. 1965. "A note on Descartes and Spinoza." *Philosophical Review* 74: 379–80.
- Brandt, Richard. 1959. *Ethical Theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bruemmer, Fred. 1981. "Eskimos are warm people." *Natural History* 90: 42–49.
- Cassirer, Ernst. 1906–07. *Das Erkenntnisproblem in der Philosophie und Wissenschaft der neueren Zeit* (The problem of knowledge), 2 vols. Berlin: B. Cassirer.
- . 1963. *Individuum und Kosmos in der Philosophie der Renaissance* (The individual and the cosmos in Renaissance philosophy), translated and with an introduction by Mario Domandi. New York: Harper and Row.
- Castberg, Frede. 1966. *Retten og staten* (Justice and the state). Oslo: Universitetsforlaget.
- Christie, Nils. 1978. *Hvor tett et samfunn?* (How tight a community?) Oslo: Universitetsforlaget.

REFERENCES

- Cohen, Felix S. 1939. "The relativity of philosophical systems and the method of systemic relativism." *Journal of Philosophy* 36: 57–72.
- Collingwood, Robin G. 1940. *An Essay on Metaphysics*. Oxford: Clarendon Press.
- Dahl, Ottar. 1956. *Om årsaksproblemer i historisk forskning; forsøk på en vitenskaps-teoritisk analyse* (Problems of causation in historical research). Oslo: Universitetsforlaget.
- Dammann, Erik. 1981. *Talofa Samoa!: gjensyn med sydbavsøya som forandret vår tilværelse* (Hello Samoa!). Oslo: Gyldendal.
- Descartes, René. 1649. *Les passions de l'âme* (The passions of the soul). Amsterdam: chez Louys Elzevier.
- . 1931. *The Philosophical Works of Descartes*, translated by Elizabeth S. Haldane and G. R. T. Ross, 2 vols., 2d ed. Cambridge: Cambridge University Press.
- Donagan, Alan. 1962. *The Later Philosophy of R. G. Collingwood*. Oxford: Clarendon Press.
- Durant, Will. 1938. *The Story of Philosophy*. Garden City, NY: Garden City Publishing.
- Elders, Fons, ed. 1974. *Reflexive Water: The Basic Concerns of Mankind*. London: Souvenir Press.
- Evans-Pritchard, Edward E. 1937. *Witchcraft, Oracles and Magic Among the Azande*. Oxford: Clarendon Press.
- Fink, Eugen, 1934. *Die phänomenologische Philosophie Edmund Husserls in der gegenwärtigen Kritik*, with foreword by Edmund Husserl. Berlin-Charlottenburg: Panverlagsgesellschaft.
- Fløystad, Guttorm. 1967. "Problemet om personlig identitet." *Norsk Filosofisk Tidsskrift* 4.
- Galtung, Johan, and Arne Naess. 1955. *Gandhis politiske etikk* (Gandhi's political ethics), 2d ed. Oslo: Johan Grundt Tanum (1968).
- Geertz, Clifford. 1973. *The Interpretation of Cultures*. London: Hutchinson.
- Hall, Everett W. 1960. *Philosophical Systems: A Categorical Analysis*. Chicago: University of Chicago Press.
- Hallett, Harold Foster. 1957. *Benedict de Spinoza: The Elements of His Philosophy*. London: University of London, Athlone Press.
- Hegge, Hjalmar. 1967. "Noen vitenskapsteoretiske spørsmål belyst ved Goethes naturvitenskap." *Norsk Filosofisk Tidsskrift* 2.
- Heidegger, Martin. 1927. *Sein und Zeit* (Being and time). Halle: M. Niemeyer.

REFERENCES

- . 1949. *Über den Humanismus* (Letter on humanism). Frankfurt: Klostermann.
- Høffding, Harald. 1926. *Etik: en fremstilling af de etiske principer og deres anvendelse og deres anvendelse paa de vigtigste livsforhold*. Copenhagen: Gyldendalske Boghandel Nordisk Forlag.
- Horton, Robin. 1970. "African traditional thought and western science." In *Rationality*, edited by Bryan R. Wilson. Evanston and New York: Harper and Row, pp. 131–71.
- Huizer, Gerrit, and Bruce Mannheim, eds. 1979. *The Politics of Anthropology: From Colonialism and Sexism Toward a View from Below*. The Hague: Mouton.
- Husserl, Edmund. 1959. *Recueil commémoratif publié à l'occasion du centenaire de la naissance du philosophe*, edited by the Committee of Phaenomenologica, H. L. van Breda, president. The Hague: M. Nijhoff.
- Jarvie, I. C., and Joseph Agassi. 1970. "The problem of the rationality of magic." In *Rationality*, edited by Bryan R. Wilson. Evanston and New York: Harper and Row, pp. 172–93.
- Jaspers, Karl. 1919. *Psychologie der Weltanschauungen* (Psychology of worldviews). Berlin: Springer.
- Kant, Immanuel. 1781. *Kritik der reinen Vernunft* (Critique of pure reason). Leipzig: P. Reclam (1878).
- Keesing, Roger M. 1974. "Theories of Culture." *Annual Review of Anthropology* 3: 73–97.
- . 1976. *Cultural Anthropology: A Contemporary Perspective*. New York: Holt, Rinehart, and Winston.
- Kierkegaard, Søren. 1941. *Concluding Unscientific Postscript*, translated by D. F. Swenson and W. Lowrie. Princeton: Princeton University Press.
- Kneale, W. M. and Martha Kneal. 1962. *The Development of Logic*. Oxford: Clarendon Press.
- Koestler, Arthur. 1949. Untitled essay in *The God That Failed*, edited by Richard H. S. Crossman. New York: Harper, pp. 15–75.
- Lange, Friedrich. 1925. *History of Materialism and Critique of Its Present Importance*. New York: Harcourt, Brace and Company.
- Ledang, Ola Kai. 1981. "Afrikansk musikk idag: eit globalt kraftsentrum" ("Afrikan music today: A global hub) *Forskningsnytt* 26: 18–23.
- Leibniz, Gottfried Wilhelm. 1908. "Refutation of Spinoza, c. 1708." In *The Philosophical Works of Leibnitz*, edited by George Martin Duncan. New Haven, CT: Tuttle, Morehouse and Taylor, pp. 264–73.

REFERENCES

- . 1925. *Monadology and Other Philosophical Writings*, translated by Robert Latta. London: Oxford University Press.
- Lukes, Steven. 1970. "Some problems about rationality." In *Rationality*, edited by Bryan R. Wilson. Evanston and New York: Harper and Row, pp. 194–213.
- Mannheim, Karl. 1936. *Ideology and Utopia: An Introduction to the Sociology of Knowledge*, translated by Louis Wirth and Edward Shils. New York: Harcourt Brace.
- Marx, Karl, 1938. *Die Deutsche Ideologie* (The German ideology). London: Lawrence and Wishart.
- Mates, Benson. 1968. "Philosophical scepticism and the logical antinomies." In *Proceedings of the 14th International Congress of Philosophy*, Vienna. Vienna: Herder.
- Naess, Arne. 1936. *Erkenntnis und wissenschaftliches verhalten* (Science as behavior), Ph.D. diss. Oslo: Norwegian Academy of Sciences.
- . 1953. *Interpretation and Preciseness: A Contribution to the Theory of Communication*. Oslo: Jacob Dybwad. (SWAN I)
- . 1962. "We still do not know that norms cannot be true or false: A reply to Dag Österburg." *Theoria* 28: 205–09. (in SWAN VIII)
- . 1964. "Reflections about total views." *Philosophy and Phenomenological Research* 25: 16–29. (in SWAN X)
- . 1974. *Gandhi and Group Conflict*. Oslo: Universitetsforlaget. (SWAN V)
- . 1980. *History of Philosophy*, 2 vols. Oslo: Universitetsforlaget.
- Naess, Arne, Jens Christophersen, and Kjell Kvalø. 1956. *Democracy, Ideology, and Objectivity: Studies in the Semantics and Cognitive Analysis of Ideological Controversy*. Oslo: Universitetsforlaget.
- Natorp, Paul. 1893. *Die Ethika des Demokritos*. Marburg: N. G. Elwert.
- Nordenstam, Tore. 1968a. *Sudanese Ethics*. Uppsala: Scandinavian Institute of African Studies.
- . 1968b. "An Analysis of the Traditional Sudanese Virtues," Ph.D. diss. Universities of Bergen and Khartoum.
- . 1972. *Empiricism and the Analytic-Synthetic Distinction*. Oslo: Universitetsforlaget.
- Pepper, Stephen C. 1942. *World Hypotheses: A Study in Evidence*. Berkeley: University of California Press (1961).
- Polanyi, Michael. 1952. "The stability of beliefs." *British Journal for the Philosophy of Science* 3: 217–32.
- Quine, W. V. O. 1953. *From a Logical Point of View*. Cambridge: Harvard University Press.

REFERENCES

- Rescher, Nicolas, and Robert Brandom. 1980. *The Logic of Inconsistency*. Oxford: Blackwell.
- Roberts, John M. 1964. "The self-management of cultures." In *Explorations in Cultural Anthropology*, edited by Ward H. Goodenough. New York: McGraw-Hill, pp. 433–54.
- Russell, Bertrand. 1937. *A Critical Exposition of the Philosophy of Leibniz*. London: G. Allen & Unwin.
- Russell, Bertrand, and Frederick Copleston. 1957. *En samtale om Guds eksistens* (A conversation on the existence of God). Oslo: Cappelen.
- Rynin, David. 1964. "Donagan on Collingwood: Absolute presuppositions, truth, and metaphysics." *Review of Metaphysics* 18: 301–33.
- Schutz, Alfred, 1962–66. *Collected Papers*, 3 vols, edited and introduced by Maurice Natanson, with a preface by H. L. van Breda. The Hague: M. Nijhoff.
- Sextus Empiricus. 1933–44. *Sextus Empiricus*, 4 vols., translated by R. G. Bury. Cambridge, MA and London: Loeb Classical Library.
- Spinoza, Benedictus de. 1914. *Ethica, ordine geometrico demonstrata*. The Hague: M. Nijhoff.
- Stalin, Joseph. 1940. *O dialekticheskom i istoricheskom materializme* (Dialectical and historical materialism). New York: International Publishers.
- Ueberweg, Friedrich. 1898–1903 (9th edition). *Grundriss der geschichte der philosophie* (A history of philosophy from Thales to the present time), 4 vols. Berlin: E. S. Mittler and Son.
- Vaihinger, Hans. 1911. *Die Philosophie des Als-Ob* (The philosophy of "as if"). Berlin: Reuther and Reichard.
- van Breda, H. L. and J. Taminiaux, eds. 1959. *Husserl et la pensée moderne. Husserl und das Denken der Neuzeit. Actes du deuxième Colloque international de phénoménologie, Krefeld, 1-3 novembre 1956*. The Hague: M. Nijhoff.
- Walsby, Harold. 1947. *The Domain of Ideologies*. Glasgow: W. MacLellan.
- Wedberg, Anders. 1958–66 *Filosofins historia* (History of philosophy), 3 vols. Stockholm: Bonniers.
- Wilson, Bryan R., ed. 1970. *Rationality*. Evanston and New York: Harper and Row.
- Wolfson, Harry Austryn. 1934. *The Philosophy of Spinoza: Unfolding the Latent Processes of His Reasoning*, 2 vols. Cambridge: Harvard University Press.
- Wyller, Egil A. 1960. *Platon*. Oslo: Universitetsforlaget.

Index

- Absolute, the, 32, 33, 34, 47
- absolute presuppositions, 83, 85–86, 89, 153n1
- absolutization
 - of logic and truth-concepts, 138–39
 - of models, 30
 - of one's own culture, 134–40, 141
 - of world pictures, 28–32, 33
- Academic scepticism, 2, 21–22, 151n6
- Agassi, Joseph, 110
- analytic statements, 60–61, 153n1
 - in logical antinomies, 19
- Anselm, 63
- anthropology. *See* cultural anthropology
- antinomies, logical, 19, 151n3, 151n4
- a priori, concepts of, 60–61
- Aquinas, Thomas, 6, 46, 65, 116, 145
- Aristotle's system, 6, 21, 36, 54
 - as all-inclusive, 145
 - Collingwood and, 83, 90
 - fundamental ontological distinction in, 96–98, 153n1
 - integration of, 116
 - other systematizers and, 52, 57
 - semantics in, 105
 - Spinoza's concepts and, 63
 - substance in, 152n4
- assumptions
 - implicit, of systems, 5, 14–17, 25
 - See also* presuppositions
- atomic theory
 - ancient, 30, 59
 - modern, 100, 110
- Avenarius, Richard, 73
- Averroes, 63
- Avicenna, 63
- axiology, 45
- Ayer, Alfred, 152n8
- Azande culture, 123, 135, 141
- Baktaman culture
 - anthropologist's understanding of, 123
 - contact with other cultures, 141
 - experience of, 112–13
 - initiation in, 117–18, 119–22, 132–33
 - ontology of, 125–27, 132
- Barth, Fredrik
 - Baktaman cultural change and, 141
 - on Baktaman initiation, 119, 120, 121, 133
 - culture concept of, 108–09, 110, 113, 115, 132, 153n1
 - on method in anthropology, 124, 136, 137
- Bateson, Gregory, 131
- Beethoven, Ludwig van, 111
- beholding type of world picture, 32, 35
- being, 33, 77, 97–98
 - See also* existence; ontology
- belief, 22
- Bennett, Jonathan, 152n3
- Berkeley, George, 8, 73
- Brandom, Robert, 98
- Breda, H. L. van, 74
- Brandt, Richard, 43, 44
- Bruemmer, Fred, 135
- Bruno, Giordano, 26
- Buddha, 33
- Buytendijk, 73
- Carnap, Rudolf, 22, 49
- Cassirer, Ernst
 - on Cusanus, 41–42
 - on Hume, 66–68
- Castberg, Frede, 23

INDEX

- categories in systems, 21
 - equivalence of systems and, 98
 - Hall's sense of, 22–23, 45, 101
 - presuppositions as, 84
 - in total systems, 54
- causation
 - historians' concepts of, 72
 - in Kant's system, 84, 86
 - presuppositions about, 84–85, 86
 - Russell vs. Copleston on, 37
 - in Spinoza's system, 63–65
- Chiricahua Apache culture, 107, 108
- Christie, Nils, 126
- Church, Alonzo, 45
- cognitive affinity, 58, 59
- Cohen, Felix S., 93–94, 95
- Collingwood, Robin G., 83–90, 153n1
- Columbus, Christopher, 102
- combinatorics of systems, 60, 61
- commonsense world, 71, 72–73, 102–03, 135
- concepts of a system, 22–23
 - identity of, between systems, 77–79
 - in presuppositions, 84
- conceptual frameworks. *See* frames of reference; presuppositions
- contradiction. *See* principle of contradiction
- Copleston, Frederick, 37
- Crescas, 63
- cultural anthropology
 - Collingwood's system concept and, 90
 - cultural differences and, 123, 124
 - definitions of culture in, 108–09, 113–16, 135
 - in different cultures, 136–37, 139, 141–42
 - frames of reference in, 135–36, 137, 145
 - structure vs. content and, 110–11, 112, 113, 139–40, 147
- cultures
 - absolutization of one's own, 134–40, 141
 - as all-inclusive, 145–46
 - changes in, 140, 141, 146, 148
 - classification of, 147
 - conflicts within, 144
 - definitions of, 108–09, 113–16, 135
 - differences between
 - comparison and, 132, 135–37, 147
 - depth of, 125–30, 131, 132–34
 - in experienced content, 111
 - limits to, 137–38, 147–48
 - translatability and, 122–25
 - general statements about, 148
 - as information economies, 106–08, 113, 115, 117–20, 125, 132
 - norms of, 111, 115, 117, 122, 132
 - conflicting, 144
 - reality and, 148
 - ontologies of, 110, 125–27, 132
 - vs. philosophical systems, 105–10, 115
 - branches of philosophy and, 125–26
 - communication of knowledge and, 119, 120, 121–22
 - conclusions on, 143–49
 - differences and, 125, 126, 131–34
 - familiarization and, 112
 - integration and, 116–18, 126
 - premises and, 109–10
 - possible vs. actual, 148
 - presuppositions of, 85, 89, 137
 - reality and
 - experience of, 111, 133, 134, 147, 153n3
 - interpretation of, 109, 110, 111, 140, 148
 - relativity of values of, 144–45
 - as total views, 110, 143, 144
 - world pictures of, 110, 111, 123, 132, 140
- Cusanus, Nicholas, 34, 41–42
- Dahl, Ottar, 72
- Dammann, Erik, 112, 115–16, 127, 128, 129
- Darwin, Charles, 5
- definiteness (or depth) of intention
 - in comparing systems, 24–25, 38, 61, 82
 - of different logics, 139
 - within systems, 24, 38
 - in understanding cultures, 111
 - in vernacular, 72
 - See also* precization
- Democritus, 6, 28, 59
- Descartes, René
 - Leibniz's concepts and, 77, 96
 - Spinoza's concepts and, 63, 94, 96
 - on feelings, 38
 - on substance, 77–79, 130–31, 152n3
 - system of, 6, 36, 54, 57
- determinism, of Democritus, 59
- Dewey, John, 54, 153n1
- dialectical materialism, 51, 52
- dialectical method, of Hegel, 55
- Dilthey, Wilhelm, 29, 49
- dogmatism, 4–5, 14

INDEX

- Donagan, Alan, 153n1
 Durant, Will, 93
- Einstein, Albert, 26
 Elders, Fons, 152n8
 empiricism
 Ayer vs. Naess on, 152n8
 naive, of Donagan, 153n1
 synoptic formulation of, 49
 vs. rationalism, 52–53
 See also experience
 Epicurus's system, 41, 50, 52
 epistemology
 cultural differences and, 126
 in synoptic systems, 45, 49, 50, 53
 system differences and, 131
 in total systems, 54
 See also knowledge; scepticism
epoché (suspension of judgment), 61
 Eskimos, 135
 ethics
 cultural differences and, 125, 126
 descriptive vs. deductive, 43–44
 stepwise system construction in, 152n9
 in synoptic systems, 45, 49, 50, 53
 in total systems, 54
 See also values
 Evans-Pritchard, Edward E., 123, 135, 141
 everyday speech, 24–25, 71–74, 81–82, 95
 existence
 different concepts of, 77
 Spinoza on, 63–64
 See also being; ontology
 experience
 cultural differences and, 111, 112–13, 133–34
 culture as, 140, 147, 148
 presuppositions and, 84, 153n1
 in synoptic systems, 49, 50, 53
 system differences and, 133–34, 147
 world pictures and, 26, 28, 29, 31, 33
 See also empiricism
 extrapolation
 from scientific worldview, 1
 of systems, 57–61
- Fechner, Gustav, 28
 Fichte, Johann Gottlieb, 33
 Fink, Eugen, 73
 Floystad, Guttorm, 48
 formal world pictures, 32, 35
- frames of reference, 14–15, 16, 17
 for comparison of systems, 53–54, 61–62, 80
 in ideology research, 18
 of social scientist, 20
 supersystematic, 33–34
 See also metasystems
 free will, 19, 23–24, 131
 Frege, Gottlob, 57
- Galtung, Johan, 43
 Gandhi, Mahatma, 43, 152n9
 Gassendi, Pierre, 58
 Geertz, Clifford, 114, 116–17, 153n3
 Gestalt psychology, 27
 God
 causation and, 37, 63–64
 presuppositions about, 87, 88, 89
 Spinoza on, 63–64, 130
 substance and, 130, 152n4
 Goethe, Johann Wolfgang von, 29
- Haeckel, Ernst, 28
 Hall, Everett W., 22–23, 42, 45, 101
 Hallett, Harold Foster, 62–63, 64–65
 Hartmann, Nicolai, 5
 Hegel, Georg Wilhelm Friedrich
 on the Absolute, 33
 all-inclusiveness of system, 47, 145
 metasystems and, 96
 Newton and, 5
 traditional presentations of system, 36, 55–56, 152n11
 Hegge, Hjalmar, 29
 Heidegger, Martin, 20, 37, 71, 73
 Heraclitus, 33
 Herman, Imre, 19
 Herskovits, Melville Jean, 113
 historians
 causation and, 72
 Collingwood's system concept and, 89–90
 historicism, 31–32, 33
 Hobbes, Thomas, 21, 58
 Hoffding, Harald, 125
 Horton, Robin, 110
 Huizer, Gerrit, 137
 Hume, David
 avoidance of technical terminology, 73
 didactic formulations of, 66–67
 Kant and, 8, 67–70, 86
 logical antinomies and, 19

INDEX

- Hume, David (*continued*)
 rejection of system construction, 21
 world hypothesis of, 54
 Husserl, Edmund, 71, 73–74
- Ibsen, Henrik, 110
 ideology research, 18–19, 20, 137
 Indian philosophy, 48
 infinity, spatio-temporal, 26
 information economies, 106–08, 113, 115, 117–20,
 125, 132
isothernia (state of mental suspense), 59
- James, William, 11
 Jarvie, I. C., 110
 Jaspers, Karl
 cultures and, 144
 metatheory of, 33
 on “the whole,” 46–47
 on world pictures, 12–13, 25–36, 151n1,
 152n7
 mental and cultural, 31–32
 metaphysical, 32–36
 sensible in space, 26–31
 on worldviews, 13, 35–36, 151n1
- Kalabari culture, 110
 Kant, Immanuel
 on the Absolute, 33
 on causation, 84, 86
 definitions and, 40
 education about, 120
 Hume and, 8, 67–70, 86
 rejection of system construction, 21
 total view expressed by, 48
 world hypothesis of, 54
 Keesing, Roger M., 113, 114, 115, 117, 135
 Kierkegaard, Søren, 2, 15, 132
 Kluckhohn, Clyde, 114
 Kneale, Martha, 46
 Kneale, W. M., 46
 knowledge
 Aristotle on, 96–97
 cultural, 108, 118–22, 126, 133
 limits of, 148–49
See also epistemology; scepticism
 Koestler, Arthur, 17, 151n2
 Kroeber, Alfred, 114
- La Mettrie, Julien Offray de, 58
 Lange, Friedrich, 50
- Lapland, 108, 126
Lebenswelt, 71, 73, 74
 Ledang, Ola Kai, 111
 Leibniz
 on the Absolute, 33, 34
 vs. Descartes, 77, 96
in se/in alio distinction and, 140
 on possible worlds, 101, 148
 Russell on, 22
 vs. Spinoza, 95, 96
 semantics and, 40
 on substance, 34, 39–40, 77, 94, 152n4
 total view expressed by, 48
- Lévi-Strauss, Claude, 140
 Lévy-Bruhl, Lucien, 19, 138
 Lewin, Kurt, 99
 liar antinomy, 19, 151n3
 Linton, Ralph, 113
 Locke, John, 76
 logic
 cultural differences and, 137–39
 different logics, 20, 45, 138–39, 151n5
 formal vs. natural, 138–39
 problems of total systems and, 13, 16, 24
 substance and, 45, 152n4
 in synoptic systems, 45, 52
 in total systems, 24, 54
See also methodologies; principle of
 contradiction
- logical antinomies, 19, 151n3, 151n4
 logical positivism, of Rynin, 86
 Löwith, Karl, 73
 Lucretius, 54
 Lukes, Steven, 138
- magic, 110, 123
 Maimonides, 63
 Mannheim, Bruce, 137
 Mannheim, Karl, 18, 19
 Maritain, Jacques, 42
 Marx, Karl, 103
 materialism
 of Democritus, 59
 as general orientation, 21
 synoptic formulation of, 49–50
 variants of, 58
 of world pictures, 33
- Mates, Benson, 19
 meaning
 culture and, 122, 135, 140, 142
 in individual’s world picture, 31

INDEX

- in philosophical systems, 60–61, 81, 82, 105, 140
 - synoptic formulations, 49, 50, 53
 - real world and, 140
 - See also* semantics
- meaning of life, 109
- mechanical world pictures, 28, 29, 30, 33
- metaphysical presuppositions, 83–90, 153n1
- metaphysical world pictures, 32–36
- metasystems, 42
 - for comparing cultures, 135–36
 - for comparing systems, 42, 79, 80, 81, 82, 96
 - of Goethe and Newton, 29
- semantic, 24
- superficiality of, 33–34
- traditional presentations of systems and, 55
- See also* frames of reference
- methodologies
 - comparison of systems and, 52, 53–54, 80, 90–91, 131
 - in synoptic systems, 52, 53
 - in total systems, 16, 54
 - See also* logic
- models
 - relativity of, 30
 - of the world, 100
- Moore, G. E., 22
- Mounier, Emmanuel, 48
- Munch, Edvard, 13
- mythical world pictures, 12, 28, 29, 32, 33, 35

- Naess, Arne
 - on descriptive ethics, 43
 - on different logics, 151n5
 - Erkenntnis und wissenschaftliches Verhalten* (Science as behavior), 30
 - Interpretation and Preciseness*, 68
 - on relativity of models, 30
 - on total views, 152n8, 153n2
 - on truth of norms, 153n2
- Natanson, Maurice, 102
- Natorp, Paul, 59
- naturalism, 28, 33
- nature-historical world pictures, 28, 29
- nature-mechanical world pictures, 28, 29, 30, 33
- nature-mythical world pictures, 28, 29
- negative theologies, 32, 34–35
- negativism. *See* Academic scepticism
- Newton, Isaac, 5, 21, 29, 68
- Nietzsche, Friedrich, 49, 57
- nonstandard worlds, 98
- nonviolence, 44
- Nordenstam, Tore, 43–44, 61, 152n10
- norms
 - of cultures, 111, 115, 117, 122, 132
 - conflicting, 144
 - reality and, 148
 - of philosophical systems, 90–91, 131–32, 148
 - truth or falsity of, 153n2
- Nuer culture, 122–23

- objects, represented by system, 20–21, 22
- Objectual, the, 12, 13, 31, 46, 151n1
- Ockham, William of, 88
- ontology
 - of Aristotle, 96–98
 - of cultures, 110, 125–27, 132
 - of Democritus, 59
 - in synoptic systems, 45, 49, 50, 52
 - in total systems, 54, 131
 - See also* being; existence
- Opler, Morris, 108
- orientations, 21, 22

- pan-logistic world pictures, 32, 33
- Parmenides, 33
- Pepper, Stephen C., 54–55
- personal identity, 48
- phenomena, in Schopenhauer's system, 56
- phenomenology, 27, 73
 - of philosophy, 95
- philosophical systems. *See* systems
- philosophical world pictures, 14, 28–36
- Plato
 - on examined life, 11
 - ontology of, 97
 - system expresses personality, 6
 - theory of forms, 21
 - on ultimate reality, 33
 - world hypothesis of, 54
- pleasure, Democritus on, 59
- pluralism
 - about cultural anthropologies, 141
 - of James, 11
 - of Leibniz, 94
 - about logics, 138–39
 - about truth-concepts, 91, 139
 - about worlds, 99–103
- Polanyi, Michael, 151n2
- Porphyry, 63
- possibilism, cultural anthropology and, 141
- possible worlds, 148, 149

INDEX

- pragmatism, 21
- precization
 - in comparing logics, 139
 - in comparing systems, 39, 60–61, 82, 95, 132
 - of conceptual framework, 12
 - of culture concept, 115
 - of everyday speech, 71–72, 73, 74, 81–82, 95
 - of general statements about systems, 148
 - of presuppositions, 24
 - of system concept, 143
 - See also* definiteness (or depth) of intention
- presuppositions
 - absolute, 83, 85–86, 89, 153n1
 - of any assertion at all, 153n2
 - Collingwood on, 83–90, 153n1
 - of commonsense world, 102
 - common to all systems, 89
 - conflicting, 23–24
 - of a culture, 85, 89, 137
 - experience and, 84, 153n1
 - frames of reference and, 14–15
 - identification of, 46
 - inside or outside of system, 84, 86–88
 - vs. principles within system, 88–90
 - Pyrrhonian scepticism and, 151n6
 - in science, 2, 84–85
 - temporary suspension of, 3–4, 12
 - tensions within clusters of, 85–86, 90
 - truth of, 84, 85, 86, 87, 89
 - “primitive” cultures, 20, 138, 142
- principle of contradiction
 - cultural differences and, 137–38, 139
 - in equivalent systems, 96, 97
 - in synoptic systems, 49, 50, 53
 - See also* logic; presuppositions, conflicting
- psychologism, 31–32, 33
- Pyrrhonism, 2, 21–22, 151n6
- Pythagoras, 33
- Quine, W. V. O., 45
- rationalism
 - as general orientation, 21
 - synoptic formulation of, 52–53
- rationalistic world pictures, 32, 33
- rationality, cultural differences and, 138, 139
- reality
 - criteria of, 148
 - of cultural anthropologist, 135
 - culture’s experience of, 111, 133, 134, 147, 153n3
 - culture’s interpretation of, 109, 110, 111, 140, 148
 - not apprehended by one person, 96
 - referred to by systems, 105–06, 140, 146–47
 - in Schopenhauer’s system, 56
 - singularity of, 98–100, 134, 140, 146–47
 - social, 102–03
 - of system comparer, 90–91
 - vs. world, 134
 - world pictures and, 33, 140, 147
- real world
 - abstractions from, 27–28
 - all-inclusiveness of, 140
 - ambiguity of, 143
 - criteria for, 148
 - cultures and, 109
 - vs. possible worlds, 148, 149
 - See also* worlds
- relativism, 81, 144–45
 - See also* world pictures, relationality of
- Rescher, Nicolas, 98
- Rickert, Heinrich, 45
- Roberts, John M., 107, 108, 113, 115
- Roman civilization, presuppositions of, 85
- Russell, Bertrand, 22, 37
- Russell’s antinomy, 19, 151n4
- Ryle, Gilbert, 58
- Rynin, David, 83, 84, 85, 86, 88, 89, 153n1
- Samoan culture, 112, 115–16, 127–28, 129
- Sartre, Jean-Paul, 37
- scepticism, 2, 3, 4, 14, 21–22, 151n6
- Scheler, Max, 73
- Scholastic systems, 22–23
- Schopenhauer’s system, 56, 152n12
- Schutz, Alfred, 102
- science
 - cultural differences and, 147–48
 - excluded from systems, 55
 - Goethe’s view of, 29
 - vs. magic, 110
 - openness of, 146
 - philosophical interpretation of, 2, 147
 - presuppositions in, 2, 84–85
 - reality and, 148
 - uncritical use of, 5
 - worldview of, 1–2
- self-reference, 24
- semantic depth, 132
 - See also* precization

INDEX

- semantics
 - for comparison of systems, 39–40, 79
 - cultural differences and, 123–24
 - in systems, 45, 50, 54
 - of systems, 24–25, 105
 - See also* meaning
- Semiotic Triangle, 24, 79
- Sextus Empiricus, 21, 151n6
- social anthropology, 108
 - See also* Barth, Fredrik; cultural anthropology
- social reality, 102–03
- Socrates, 22
- Spencer, Herbert, 5
- Spinoza, Benedictus de (Baruch)
 - all-inclusiveness of system, 145
 - Berkeley and, 8
 - on causation, 63–65
 - Collingwood's system concept and, 90
 - deductive method of, 43–44
 - vs. Descartes, 63, 94, 96
 - on feelings, 38
 - on substance, 77–79, 130–31, 152n3
 - essence and, 74
 - on feelings, 38, 130
 - Hall's system concept and, 45
 - inconsistency of system, 116
 - in itself/in something else distinction, 76, 86, 88, 140
 - vs. Leibniz, 95, 96
 - semantics and, 40
 - on substance, 34, 39–40, 77, 94, 152n4
 - personality of, 6, 48
 - presentations of his system, 7, 75, 76, 152n2
 - presuppositions of, 86, 88
 - semantics of, 39–40
 - on substance
 - as the Absolute, 33, 34
 - vs. Descartes, 77–79, 130–31, 152n3
 - Hallett on, 65
 - vs. Leibniz, 34, 39–40, 77, 94, 152n4
 - world hypothesis of, 54
 - worldview of, 35–36
- spiritual world pictures, 33, 151n1
- Stalin, Joseph, 51
- Stirner, Max, 101
- Stoic philosophy, 41
- structuralism, 139–40
- substance
 - Aristotelian criteria for, 152n4
 - Spinoza on
 - as the Absolute, 33, 34
 - vs. Descartes, 77–79, 130–31, 152n3
 - Hallett on, 65
 - vs. Leibniz, 34, 39–40, 77, 94, 152n4
 - synonymity hypothesis about, 77–79
 - substance-directed world pictures, 32, 35
 - synonymity, 53, 77
 - synoptic systems, 42, 44–45
 - comparisons of, 52–53
 - examples of, 49–51, 53
 - explicitness of, 47
 - philosophers' personalities and, 47–49
 - topics included in, 45–47
 - synthetic statements, 153n1
 - systems
 - vs. antsystematic orientations, 5, 21, 22
 - basic concepts about, 20–25
 - classification of, 36, 147
 - Collingwood's concept of, 89–90
 - combinatorics of, 60, 61
 - comparison of, 37–40
 - adequate representation and, 74–79, 147
 - debates between philosophers, 37, 39, 152n8
 - definiteness of intention and, 24–25, 38, 61, 82
 - discontinuous character of, 68–70
 - everyday speech and, 24–25, 71–74, 81–82, 95
 - experience and, 133–34, 147
 - extrapolation in, 57–61
 - frames of reference for, 53–54, 61–62, 80
 - metasystems for, 29, 79, 80, 81, 82, 96
 - methodologies and, 52, 53–54, 80, 90–91, 131
 - personalities and, 6, 48
 - pluralism of worlds and, 100–101
 - semantics for, 39–40, 79
 - simple examples, 52–53
 - simplified presentations for, 40, 41, 152n9
 - structures and, 140, 147
 - of total systems, 53–57, 68, 76, 81
 - truth and, 40, 79–82, 90–91, 153n2
 - world pictures and, 29, 81
 - concepts in, 22–23, 77–79, 84
 - connections between things in, 11–12
 - contradictions in, 23–24
 - vs. cultures, 105–10, 115
 - branches of philosophy and, 125–26
 - communication of knowledge and, 119, 120, 121–22
 - conclusions on, 143–49

INDEX

systems (*continued*)

- differences and, 125, 126, 131–34
- familiarization and, 112
- integration and, 116–18, 126
- premises and, 109–10
- deduction and, 43–44
- defined, 20–21, 105–06
- definiteness of intention in, 24, 38
- definitions in, 40
- different
 - criteria for, 24–25
 - depth of difference, 130–31
 - empirical verification and, 153n1
 - understanding of, 8–9
- dogmatic, 4–5, 14
- equivalence of, 89, 93–98
- extrapolation of, 57–61
- general orientations and, 21
- general statements about, 148
- Hall's concept of, 22–23, 42, 45, 101
- historical overviews of, 6–9, 36–37, 61–62
- implicit assumptions of, 5, 14–17, 25
- incompleteness of, unavoidable, 16, 19–20
- information content of, 107
- introductory expositions of, 61–70
- norms of, 90–91, 131–32, 148
- vs. other creative works, 49
- partial, 24, 42, 54
- personalities of philosophers and, 6, 47–49
- pluralism of worlds and, 99–103
- pyramidal reconstructions of, 40, 41–42, 43, 67–68
- Pyrrhonism and, 21–22
- relativism about, 81, 144, 145
- science and, 5, 55, 146
- semantic characteristics of, 24–25, 105
- structure vs. content of, 139–40, 147
- synonymity and, 53, 77
- synthesis and, 5
- total views as, 21, 36, 37, 54–55
- worldviews and, 35–36
- See also* metasystems; presuppositions; synoptic systems; total systems or total views; world pictures

Taminiaux, J., 74

Thales, 52

third system. *See* metasystems

total systems or total views

- absolutization of world pictures and, 29–30
- “artificial” combinations as, 57–61
- cannot describe everything, 46–47, 55
- comparison of, 53–57, 68, 76, 81
- comprehensibility to outsider, 146
- consistency of presuppositions in, 24
- cultures as, 110, 143, 144
- defined, 20, 21, 24, 54–55
- vs. Empiricist views, 152n8
- improvement of, 146
- include the outsider, 152n1
- logical problems of, 13, 16, 24
- personal identity and, 48
- possibility of, 16, 17–18, 143–44, 145
- presupposed by any assertion, 153n2
- reality and, 146–47
- scepticism toward, 2
- scientific research and, 1, 147
- social scientists and, 20
- striving for totality, 22
- system vs. view, 21
- traditional examples, 55–57
- as world hypotheses, 54–55

See also systems

translatability, 122–25

truth

- Aristotle on, 97, 98
- in Baktaman culture, 133
- combinatorics of systems and, 61
- comparison of systems and, 40, 79–82, 90–91, 153n2
- cultural differences and, 138, 139
- liar antinomy and, 151n3
- of norms, 153n2
- of presuppositions, 84, 85, 86, 87, 89
- scepticism about, 2, 3, 4, 151n6
- in Scholastic systems, 22, 23
- in synoptic systems, 50, 53
- of systems, 105

Tylor, E. B., 113, 114

Ueberweg, Friedrich, 152n11, 152n12

utilitarian ethics, 49

Vaihinger, Hans, 65

values

- cultural relativity about, 144–45

INDEX

- Jaspers on, 27, 151n1
- reality of, 91
- in total systems, 54
- See also* ethics
- vernacular. *See* everyday speech

- Walsby, Harold, 18, 19
- Wedberg, Anders, 61
- Whitehead, Alfred North, 54
- Wilson, Bryan R., 142
- Winsnes, A. H., 42
- Wittgenstein, Ludwig Josef, 21, 22, 58
- Wolfson, Harry Austryn, 63, 65
- world hypotheses, 54–55
- world pictures, 12–14, 151n1
 - absolutization of, 28–32, 33
 - commonsense, 71
 - comparison of systems and, 29, 81
 - of cultures, 110, 111, 123, 132, 140
 - defined, 12, 151n1
 - formal, 32, 35
 - Jaspers' typology of, 25–36, 152n7
 - mental and cultural, 31–32
 - metaphysical, 32–36
 - sensible in space, 26–31
 - mechanical, 28, 29, 30, 33
 - mythical, 12, 28, 29, 32, 33, 35
 - nature, 28, 29, 30, 33
 - pan-logistic, 32, 33
 - philosophical, 14, 28–36
 - reality and, 33, 140, 147
 - relationality of, 12
 - scientific, 1–2, 147
 - spiritual, 33, 151n1
 - substance-directed, 32, 35
- worlds
 - different, 99, 100, 109, 111, 134
 - nonstandard, 98
 - of philosophical systems, 100–101
 - possible, 148, 149
 - real, 27–28, 109, 140, 143, 148, 149
 - vs. realities, 134
 - See also* reality
- worldviews
 - Jaspers' definition of, 13, 151n1
 - magical, 110
 - philosophical systems and, 35–36
- Zeteticism, 2

Arne Naess was born in Slemdal, Norway, in 1912. One of Norway's foremost philosophers, known especially for his innovative eco-philosophy, Naess began his work with peace studies, global justice, and human rights, and continued with environmental matters. The subjects of his scholarly work and interests include empirical semantics, logic and foundations of science, communication theory and practice, Spinoza, scepticism, gestalt ontology, and normative systems theory. Naess's contributions have been honored by many awards, including Norway's Peer Gynt Award, Denmark's Sonning Prize, the Nordic Council Award for Nature and Environment, the Uggla Prize for Humanistic Studies from Stockholm University, and the Mahatma Gandhi Prize for Non-violent Peace.

Naess graduated from the University of Oslo in 1933, studied in Paris and Vienna, and became the youngest person appointed to a full professorship of philosophy at the University of Oslo, where he worked from 1939 to 1969. Since 1970, he has continued his work as a philosopher, naturalist, and environmental activist. He has been involved with the University of Oslo's Center for Development and the Environment since 1991. The Arne Naess Chair in Global Justice and the Environment is being established at the university to encourage scholars to engage creatively with Naess's work and ideas, in particular to promote new insights into environmental issues and the challenges posed by globalization, and to develop ideas that will help to humanize the difficult and conflict-laden transition to sustainability. Naess holds honorary doctorates from Stockholm University and The Norwegian National University of Sports and Physical Education. He is also an honorary member of The Norwegian Alpine Club and The Norwegian Tourist Association.

In addition to writing countless articles and essays that have been translated into several languages and have appeared in anthologies and journals throughout the world, Naess is the author of numerous books, including *Life's Philosophy: Reason and Feeling in a Deeper World* and *Ecology, Community and Lifestyle*. He was founder and editor of the journal *Inquiry*, and has lectured in many countries. As a mountaineer, Naess was the first to climb Tirich Mir in Pakistan. In the 1930s, he built a hut on Hallingskarvet Mountain in Norway, where he spent much time reflecting upon and relating to the surroundings and native plants of his retreat. His respect and appreciation for diversity, wonderment, and our relationship to

the natural world has continued throughout his life and is reflected in the spirit of his work.

Naess currently lives in Oslo with his wife, Kit-Fai.

Harold Glasser, Ph.D. is Associate Professor of Environmental Studies at Western Michigan University in Kalamazoo, Michigan. He has been a visiting Senior Fulbright scholar at the Center for Development and Environment and Department of Philosophy, University of Oslo; a Resource Person for the United Nations University–Institute of Advanced Study; a visiting researcher at the International Institute for Applied Systems Analysis; and a lecturer at Schumacher College. He has written on environmental philosophy, policy, and planning, as well as green accounting, education for ecological sustainability, and campus sustainability assessment.

Alan R. Drengson, Ph.D. is Emeritus Professor of Philosophy at the University of Victoria, in Victoria BC Canada. He is a former Director of Environmental Studies and is currently an Adjunct Professor of Graduate Studies. He is the author of numerous articles, reviews, and books, as well as the editor of three anthologies and the founding editor of two journals, *The Trumpeter: Journal of Ecosophy* and *Ecoforestry*.

Designed by Tamotsu Yagi Design
Composed by Ralph Fowler and BookMatters in Garamond 3
Printed by Krips, Meppel on Cyclus Offset 90 gr/m2
Bound by Callenbach, Nijkerk in Elite and stamped with Colorit 922

Appendix

Historical Note on Possibilistic Pluralism

A prominent Popperian and a historian of the Vienna Circle asked me to write a few words about the historical background of some of my ideas. In 1934 and 1935, I spent fourteen months in Vienna and profited immensely from the friendliness, eagerness, and intellectual fertility of Otto Neurath, R. Carnap, M. Schlick, and F. Waismann. I saw little of K.R. Popper and P. Frank, but certainly learned from them. During my stay I wrote the final version of my *Erkenntnis und wissenschaftliches verhalten* (1936)—an effort to use biological rather than physical or logical models in epistemology *and* methodology. It is fiercely “scientistic” in the sense of proclaiming that an attempt should be made to investigate epistemological problems by existing scientific methods or techniques or by new ones created for the purpose. But because of the many-sidedness and perhaps inexhaustiveness of philosophical questions, research in different sciences would always be relevant. Logic and psychology are equally relevant.

I found Neurath’s term *Ballungen* excellent for characterizing philosophical sentences.¹ (“Will is free,” “Matter is discrete,” “Truth is agreement with reality,” etc.) Pluralism and proliferation of theories on the highest level are necessary because of the inexhaustible many-sidedness of philosophical formulations. My own total, behavioral approach I characterized as *one* model among an indefinite plurality, just as relative in its achievement as opposite models (Naess 1937–38a). Thought models such as mine or those of the biologist Jakob Von Uexküll may be used to survey other models and to make a theory of the relativity of any model. But other models may in turn survey all the biological ones, including the biologically inspired theory of relativity of models just mentioned. There is no end anywhere, and, therefore, not even an ultimate relativity. (A defense of this position against certain arguments is found in Naess 1937.)

APPENDIX: HISTORICAL NOTE ON POSSIBILISTIC PLURALISM

Because of intervening initial-condition statements, auxiliary hypotheses, postulates, and ad hoc assumptions, falsification and verification are symmetrical: “observations” can only give theories faint pluses and minuses, and one and the same observation always supports (in principle) a variety of mutually contradictory theories. This goes directly against Popper’s views as many of us interpreted him in 1934–35 in Vienna. Let me go into certain details here.

The Vienna Circle was a nucleus of a movement for “rationality” and against certain forms of metaphysics, which at the time were closely allied with fascism and national socialism. It had all the missionary zeal of a movement, and it was touching, but also somewhat alarming, to watch Otto Neurath embrace aloof and aristocratic Polish logicians of various philosophical affiliations and proclaim, “We agree! You are one of us!” If Neurath sensed that one was *somehow* on the right side, one was identified as a sort of logical positivist. Protestations were of little use, and disagreements were conceived as due only to “unhappy formulations” (*unglückliche formulierungen*), and there was always a remedy for that.

When friends who *certainly* were on the right side persisted in remonstrating, saying, “No, no, I definitely *disagree*” —and Popper and myself belonged to this category — the situation became somewhat awkward. How could we continue to misconceive our own views? Personally, I felt the nagging questions: Do I *try* to be original, do I cling to a view *because* it is mine? I do not know how Popper felt, but in the air there was a suspicion that he grossly overrated his disagreement with the inner members of the circle. A groundless and unfortunate suspicion! Looking back I see more clearly how we should have made better use of the resources of positive, original ideas in *Logik der Forschung*. In my case, little was lost because I had only a handful of ideas and some of them were too sceptically colored to inspire concentrated research.

In the case of the theory of falsification, I sided with Neurath against Popper, as we conceived his position at that time, but tried to avoid the implicit conventionalism of the former by taking sets of criteria of confirmatory and disconfirmatory instances to have an objective, testable status on the metalevel and therefore not taking them to be a matter of “decisions” (Neurath’s *Beschlüsse*). I believed in a broad, many-faceted science of science in which decisions were looked on as ultimately based on (not implied by) logical and empirical research.

In Vienna in 1934–35 the hypothetico-deductive method was taken to be the central method of natural science, and natural science the most “scientific” of all kinds of science. It was therefore a crucial question to ask to what extent potential pluralism of mutually inconsistent or incomparable theories was derivable from an exact account of the method itself. Accepting neither Popper’s theory of refutation with its antirevivalism nor the idea that theories in an interesting sense could be rated as more or less probable, I maintained in *Innføring i logikk og metodelære* (1949) and *Symbolisk logikk* (1942 and 1961) an extreme pluralism coupled with the opinion that “assertion strength” (proportional to improbability) is a plus (but not the only plus) for a theory.

The pluralism presented in my small, stenciled works in the 1940s (we used this method in Norway around this time as a substitute for printing, but distributed selected items internationally) was a pluralism of models in the broad sense in which we talk about atomic models and thought models (*gedankenmodelle*). However sweeping in their range of application, they should be distinguished from systems with theorems and theses. From models one was to derive, not general theses, but general working programs (of research). Against the physicalism of Neurath and Carnap, I (1937–38b) insisted that generalizations were not guesses or inductions but mainly disguised programs. (See also *Wie fördert man heute die empirische Bewegung. Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap*, written in 1937–39, but published as late as 1956, by Universitetsforlaget, Oslo.) The “radical empiricism” I fought for was to replace physicalism (“Zeit- und Raumangaben schützen nicht vor Anti-Empirismus”) and consisted only of a superprogram of holding all conceivable approaches to all conceivable problems “open.” In this light I conceived the *Encyclopedia of Unified Science*, and when early in the game I was asked to write on psychology in its second volume, the pluralism of psychologies of the 1930s was to occupy a central place. It was later decided that the eminent psychologist Egon Brunswik, who was closely associated with the Vienna Circle, should work together with me, but as he was a believer in his own sophisticated approach within psychology, collaboration was difficult. So, in 1945, I resigned as an author of the volume. The comparison of theories condensed on page 31 in the present work is taken from a chapter in my “Encyclopedia” manuscript, some chapters of which were later published (Naess 1948).

APPENDIX: HISTORICAL NOTE ON POSSIBILISTIC PLURALISM

Thanks to amicable relations with both C. L. Hull and E. C. Tolman, I was able to alternate between their research centers, Yale and Berkeley, and study intimately their mutual “refutations” and their competing research programs. Such metastudies, with strong ingredients of “sociology of knowledge,” inevitably suggest a pluralism: some theories are good for some things, and no theory is good for all things—for “all” psychological problems. The same was suggested by my own experiments within rat psychology at Berkeley in 1938–39.

Under the influence of Carnap, Popper, and others, I finally gave up my pragmatism and instrumental bias (really an attempt to use biology as a fundamental science), and also my empiricism. That is, I made the transition from scientism to philosophy, from theory of (scientific) models to theory of philosophical systems, using Spinoza’s as a paradigm. After all, there are wider *possibilities* of understanding than those that can be stated as research programs! More specifically, I see the transition from belief in empiricism to belief in the possibility of valid, but mutually inconsistent or incomparable, wide systematization, in terms of a rejection of the theory-observation asymmetry: that theories are tested by observation rather than vice versa. The realist, not instrumentalist, view of models, such as the atomic, implies that theoretical possibilities are cognitively on par with any kind of observation sentences, and these in turn are never “pure,” but, as far as they are understandable at all, are so in terms of a theoretical framework. They are therefore liable to be rejected from theoretical considerations; that is, observations are tested by theory.

Notes

Chapter I: The Impact of the New Historiography of Science

1. Where in the literature does one find “the neat image” expressed? It would be better to ask “Where does one not find the neat image?” In textbooks, with very few exceptions, such as Gerald Holton (1958). Among prominent philosophers of science, the early works of Popper, Carnap, and Carl Hempel present the neat image at its best.
2. [Editor’s note: source not identified.]
3. Authors, among many others, who have recently contributed (and to whom I feel in debt) include: J. Agassi, H. Butterfield, R. S. Cohen, J. B. Conant, A. C. Crombie, E. D. Dijksterhuis, B. Ellis, P. K. Feyerabend, M. Jammer, A. Koyré, T. S. Kuhn, I. Lakatos, L. Laudan, M. Polanyi, R. Popkin, K. R. Popper, and A. Wolf.
4. See Koestler’s eminently readable *The Sleepwalkers* (1959).
5. We take “historiography” to be a synonym for “writing of history”—for example, Caesar’s crossing of the Rubicon—whereas “historiology” is taken to be a synonym for “doctrine or science about historical writings.” Only the latter is at the metalevel.
6. The word *praxis* is used to denote the integration of practice and cognitive content in the total scientific enterprise.
7. Cf. Hans Gadamer, *Wahrheit und Methode*, p. 281: “Es genügt zu sagen, dass man *anders* versteht, wenn man überhaupt versteht.”
8. Cf. Gadamer, p. 288: “Es macht die geschichtliche Bewegtheit des menschlichen Daseins aus, dass es keine mitwandert.”
9. See Lakatos (1968a: 176). His later discussion (1970) of the same matter does not seem to have resulted in a new conclusion.

Chapter II: Experimental Setup, Rank Dimensions, and Pluralism

1. The term “methodological prediction” is shorthand for “prediction in the wide nonchronological sense used in methodology.” Thus, if a prediction

about tomorrow's weather is worked out from a meteorological theory, it is a methodological prediction even if it takes ten days to work it out. Common sense, not methodology, might insist that a prediction must be formed before the event predicted. When we start calculating, using T , we do not know the next day's weather, and the day after's observations do not affect the continuing calculation during the next nine days.

2. *Relative strength of an assertion* (of a formula in propositional calculus) is defined in my *Symbolisk logikk* (*Symbolic logic*) (1961: 30), as $\frac{k}{2^n}$, where k is the number of "falses" in the truth-table and n the number of variables in the formula. Compared with the calculus of probabilities, it is easily seen that the relative strength of assertion is equal to $1 - s$, where s is the probability of the assertion that emerges if the variables in the formula are replaced by propositions, all with the same probability, 0.5. Let us take the example $[(p \vee q) \supset r]$. The truth-table gives $tftftftt$ and the relative strength of assertion is $\frac{3}{2^3} = 0.375$. The formula is equivalent to $\sim(p \vee q) \vee r$, which gives the probability $1 - (1 - (0.5 \times 0.5) \times (1 - 0.5)) = 0.625$, when p , q , and r all have the probability 0.5. Thus, $0.375 = 1 - 0.625$. The term "strength of assertion" in the following is sometimes also used in a generalized, intuitive sense.
3. In diagrams of hypothetico-deductive systems *undergoing tests*, I generally place the peripheral initial-condition sentences to the left of the level of the theory formulations and the hypotheses, in a big bag. From this stems the name "the left-hand bag" (*venstresekken*), or "the surplus bag"—used in earlier publications. Considering the largely arbitrary character of the decision—as long as no particular research situation is pictured—the mass of conditions are aptly symbolized by a voluminous dark bag of strange, unsurveyable content.
4. It was the opinion of Duhem (1962: 294) that "Henri Poincaré was the first to proclaim and teach in a formal manner that the physicist could make use, in succession, of as many theories, incompatible among themselves, as he deemed best." It is my impression that, in his lectures on mechanics, Poincaré already asserted that if one "explanation" (explanatory hypothesis) covered a phenomenon (described observationally), an indefinite number of other explanations could be found.
5. Did Popper or Lakatos ever have an unemotional confrontation with psychoanalysts of some standing and training in the philosophy of science? Lakatos maintains that psychoanalysts never answered the question concerning refutation. Were they *asked*? Not only talked down to? If the psychoanalyst does not have to be more specific than Lakatos in answering the crucial question, anyone can offer a satisfactory answer: "I, [of] course, can easily answer the question when I would give up my criterion of demarcation: when another one is proposed which is better according to my metacriterion" (Lakatos MS 1971, published in 1974).

6. For elaboration on Feyerabend's hedonistic proclamation see p. 98.
7. Nagel continues: "A theory is confirmed to the degree that it performs its specific instrumental function. From this point of view, which has been developed with much detail by Dewey, the degree of confirmation for a theory may be interpreted as a mark of its proved effectiveness as an intellectual tool for the purposes for which it has been instituted." It is not clear from the text whether Nagel thinks there is a possibility of introducing a useful measurement of "degrees of confirmation" of this kind.

In the passage quoted there seems to be a confusion of retrospective with prospective evaluation. Let us say a theory already has been brilliantly used to bridge two parts of physics—for example, parts of mechanics with parts of optics—and gets a ++ mark for confirmation. This would tell us very little about the prospects for its future use. It may be a very awkward theory to use in solving certain current problems within mechanics. The fruitfulness of a tree is the potentiality of another basket of fruit.

The multiplicity of kinds of functions and uses makes it difficult to introduce a score—which is better confirmed, a hammer or a saw? And it is certainly difficult to get a score of value for decisions on what to choose in the future.

8. See Feyerabend (1969) on the desirability of working with refuted theories. The paradoxical formulation is due to the use of the Popperian identification of "direct disconfirmation by observation" with "refutation."
9. With reference to the conflict between Copernican and pre-Copernican cosmology at the time of Galileo, Feyerabend (1970b: 293–94) says:

What is needed for a test of the Copernican cosmology is therefore not just a simple-minded and direct comparison of its predictions with what is *seen*, but the interpolation, between the "perfect world" and "our world" of a well-developed meteorology (in the good old sense of the word, as dealing with the things below the moon) and of an equally well-developed science of *physiological optics* dealing both with the subjective (brain) and the objective (light, lenses) aspects of vision, telescopic vision included.

Chapter III: Theory and Theoretical Idea

1. In Carnap's work, *Philosophical Foundations of Physics* (1966), there is nothing to prevent a physical interpretation of all levels.
2. Concerning the latter see, e.g., Feyerabend (1969: 251).
3. These are thought by Thomas S. Kuhn (1962: 32–33) to be attempts to reformulate Newton's theory in an equivalent but logically and aesthetically more satisfying form. The equivalence is perhaps not meant to be equivalence (or even consistency) of logical content, but somehow equivalence of

functions. According to Nagel (1961: 159), the versions of Lagrange and Hamilton are mathematically equivalent to Newton's own "version." Physical equivalence would, however, require identity of physical interpretations.

4. For recent interpretations, see, e.g., the contributions by Brian Ellis and Hilary Putnam in Colodny (1965), and Peter Zinkernagel (1962) for laws of motion as part of precise formulation of the language of things. See also Hanson (1958: chap. 5), where he presents at least nine uses—i.e., meanings—of $F = ma$.
5. For a discussion of theoretical ideas as "point-of-departure formulations" for "precizations," see Naess (1966: chap. 2 [SWAN VII]), and as *Ballungen* (Otto Neurath).
6. Used as a motto by the editors of Kramers's *Collected Scientific Papers* (1956: 1). "Well-defined" I take in a nontechnical sense.
7. See, e.g., Hermann Bondi (1968: 19–24).
8. Carnap offers an interesting example on p. 242 (Maxwell's theory).

Chapter IV: The Unimpressiveness of Impossibilities

1. Sir Oliver Lodge reminded his contemporaries in 1893 of what might happen to the optimist in the following forceful way:

[B]ut I have met educated persons who while they might laugh at the men who refused to look through a telescope lest they should learn something they did not like, yet also themselves commit the very same folly. . . . I am constrained to say this much: Take heed lest some prophet, after having excited your indignation at the follies and bigotry of a bygone generation, does not turn upon you with the sentence "thou art the man."
(Quoted in Holton and Roller 1958: 160)
2. A second reservation: the tenability of the historical generalization does not preclude the tenability of a hypothesis concerning the future. Given favorable conditions for pluralism, it is possible that intolerance, egotistic narrowness, and "unshakeable" convictions will prove less important in mobilizing maximum energy for limited projects.
3. For more about the relativity of a pronouncement of "possible!" to kind and stage of a discussion—the dialectic aspect of possibilism—see Naess (1967).
4. I propose to interpret the exposition of theories as implying pretension of truth, or of the possibility of truth, if nothing is explicitly said to the contrary. That is, even if the "acceptance" of a theory may primarily be intended to be an acceptance of it as an instrument, a rule of inference, a working hypothesis (in a large sense of "hypothesis"), I shall assume that the acceptance also implies that it is taken to be "true or false," and *not* false. The view that a theory is simply true is rare among workers in physics because of its

tremendous “strength of assertion.” An unbroken series of confirmations over the next centuries is viewed as nearly miraculous or a sure sign of some kind of circularity in the testing process. A theory is expected to break down sooner or later.

5. Empirical investigations suggest that even among nonprofessionals, there is a strong tendency to hesitate to call theories true or false, an even stronger tendency than in the case of sentences about future events (Naess 1953a).
6. From a biological and ecological point of view, humans have a built-in need to combat uncertainties that have daily threatened their lives in an inimical Pleistocene environment. The frantic effort to increase levels of certainty is no longer functional, but is sustained by instinctual mechanisms (cf. works of authors quoted in the highly readable R. Ardrey, *African Genesis* [1961]).
7. The suggestion that excessive tolerance may be involved has been made by Wolfgang Yourgrau (1970) and others.
8. “Observations on mental education,” *Experimental Research in Chemistry and Physics* (1959: 480); quoted in Williams (1968: 236).
9. *British Journal for the Philosophy of Science*, vol. 18 (1967: 186) (diagram). I do not consider the terms *positivism* and *metaphysics* helpful in the writings of Polanyi. Too many, too different views are termed *positivistic*.
10. The existence of a single $P-P^*$ relation is already a sufficient condition for calling the theories incommensurable. The more comprehensive the changes in conceptual matters, the more the changes affect the frameworks and thereby produce indefinability of the one theory in terms of the other.
11. *Existentialismus und Marxismus: Eine Kontroverse zwischen Sartre, Garaudy, Hyppolite, Vigier und Orcl. Mit einem Beitrag von Alfred Schmidt* (1965: 65–85).
12. These five points are formulated in close agreement with points made by Wartofsky (1967: 138 ff.) and attributed to Popper.
13. Agassi (1964) speaks about science as interpretations of metaphysical views. One may also conceive of philosophical propositions as derived from interpretations of scientific ones. What is the ontological status of electrons?
14. Letter 13 (in the posthumous works, letter 11) to Oldenburg (1663), translated by A. Wolf (Spinoza 1928).
15. This point is elaborated in Naess (1948). The characteristics of “near-total systems” are elaborated in Naess (1969).

Chapter V: The New Historiography Applied to Itself: General Possibilism

1. For historical trends influencing the conception of Plato’s *Parmenides*, see, for example, Knud Johansen (1964: 230, 277).
2. Cf. Ingemar Düring, *Aristoteles* (1966).
3. Ernst Bernheim’s (1914) survey of philosophies of history is still one of the

most informative, even if, of course, his own perspective colors his classifications and characterizations. See section 5 of chapter 5 in his monumental *Lehrbuch der historischen Methode*. A useful modern reader, Joseph Kockelmans's *Philosophy of Science: The Historical Background* (1968), contains selections from Kant, Herschel, Whewell, J. S. Mill, von Helmholtz, Boltzmann, and others.

4. “[M]ost scientists tend to understand little more *about* science than fish about hydrodynamics” (Lakatos 1970: 145).
5. Fresh material has been gathered by R. Rosenthal and associates. See, for example, Rosenthal and Fode (1963).
6. Perhaps not surprisingly, Feyerabend seems to see himself as the old Nordic god Thor using “the hammer of history” to smash false images of science in thunder and lightning. His source of authority—“*actual scientific practice*.” Proliferation at the metalevel is not consistent with his belief that one can show “the tremendous abyss that exists between a certain philosophical picture of science and the real thing” (Feyerabend 1970b: 277).
7. For detailed argumentation, see Naess (1965 [in SWAN IX]).
8. It is heartening to see a thinker from the continent, Karl O. Apel (1962), elaborate this theme: “Kann es ein wissenschaftliches ‘Weltbild’ überhaupt geben. . . .”
9. The idea is discussed in Naess (1967).
10. Against this, one could say with Horkheimer and Adorno (1969: 4): “Die falsche Klarheit ist nur anderer Ausdruck für den Mythos.” See also Feyerabend (1967b).

Appendix: Historical Note on Possibilistic Pluralism

1. [Editor's note: *Ballungen* are literally “agglomerations.” They are imprecise and complex terms or notions (“verbal clusters”) that are built from more simple terms or statements, but they cannot merely be replaced by the sum of these more precise terms or statements. For a definitive discussion of Neurath's *Ballungen* see Cartwright (1996: 81, 190–93, 208–36).]

References

Books or articles appearing in the *Selected Works of Arne Naess* are identified by (SWAN XX) at the end of the entry, where XX refers to the pertinent volume number.

- Abel, Theodore. 1953. "The operation called Verstehen." In *Readings in the Philosophy of Science*, edited by Herbert Feigl and May Brodbeck. New York: Appleton-Century-Crofts.
- Agassi, Joseph. 1963. *Towards an Historiography of Science*. *History and Theory* series, vol. 2. S-Gravenhage: Mouton.
- . 1964. "The nature of scientific problems and their roots in metaphysics." In *The Critical Approach to Science and Philosophy*, edited by Mario Bunge. Glencoe: Free Press.
- . 1966. "Sensationalism." *Mind* 75.
- Apel, Karl O. 1962. "Kann es ein wissenschaftliches 'Weltbild' überhaupt geben." *Zeitschrift für philosophische Forschung* 16.
- . 1968a. "Szientifik, Hermeneutik, Ideologiekritik: Entwurf einer Wissenschaftslehre in erkenntnis-anthropologischer Sicht." *Man and World* 1.
- . 1968b. "Das Verstehen." In *Historisches Worterbuch der Philosophie*, vol. 1, edited by Joachim Ritter. Basel: Schwabe.
- Ardrey, Robert. 1961. *African Genesis*. London: Collins.
- Aron, Raymond. 1961. "Max Weber and Michael Polanyi." In *The Logic of Personal Knowledge: Essays Presented to Michael Polanyi on His Seventieth Birthday, 11th March 1961*. Glencoe: Free Press (London: Routledge and Kegan Paul).
- Asch, Solomon E. 1965. "Studies of independence and conformity." *Psychological Monographs* 70, no. 9.
- Bartley III, William W. 1964. "Rationality versus the theory of rationality." In *The Critical Approach to Science and Philosophy*, edited by Mario Bunge. Glencoe: Free Press.

REFERENCES

- . 1968. "Theories of demarcation between science and metaphysics." In *Problems in the Philosophy of Science*, edited by Imre Lakatos and Alan Musgrave. Amsterdam: North-Holland.
- Bernal, John D. 1939. *The Social Function of Science*. London: Routledge and Kegan Paul.
- . 1967. *The Origin of Life*. London: Weidenfeld and Nicolson.
- Bernard, Luther L. 1924. *Instinct: A Study in Social Psychology*. New York: Holt.
- Bernheim, Ernst. 1914. *Lehrbuch der historischen Methode, der 5. und 6. Aufl.* München and Leipzig: Dunker and Humblot.
- Betti, Emilio. 1967. *Allgemeine Auslegungslehre als Methodik der Geisteswissenschaften*. Tübingen: J. C. B. Mohr (Paul Siebeck).
- Bohr, Niels. 1924. "On the spectrum of hydrogen." In *The Theory of Spectra and Atomic Constitution*, 2d ed. London: Cambridge University Press.
- Bondi, Hermann. 1968. *Cosmology*, 2d ed. London: Cambridge University Press.
- Bunge, Mario, ed. 1964. *The Critical Approach to Science and Philosophy*. Glencoe: Free Press.
- Burtt, Edwin A. 1924. *The Metaphysical Foundations of Modern Physical Science*. London: Routledge and Kegan Paul.
- Butterfield, Herbert. 1957. *The Origins of Modern Science—c. 1300–1800*, new ed. London: G. Bell.
- Carnap, Rudolf. 1966. *Philosophical Foundations of Physics*, edited by Martin Gardner. New York: Basic Books.
- Cartwright, Nancy et al. 1996. *Otto Neurath: Philosophy Between Science and Politics*. New York: Cambridge University Press.
- Chadwick, James. 1932. "The existence of the neutron." *Proceedings of the Royal Society of London*, A 136.
- Christiansen, B. 1964. "The scientific status of psychoanalytic clinical evidence." *Inquiry* 7.
- Cohen, Robert S. 1963. Comments (to paper by Grünbaum). In *Boston Studies in the Philosophy of Science*, vol. 1, edited by Marx W. Wartofsky. Dordrecht-Holland: Reidel.
- Cohen, Robert S., and Marx W. Wartofsky, eds. 1965. *Boston Studies in the Philosophy of Science*, vol. 2. Dordrecht-Holland: Reidel.
- . 1967. *Boston Studies in the Philosophy of Science*, vol. 3. Dordrecht-Holland: Reidel.
- Colodny, Robert G. 1962. *Frontiers of Science and Philosophy*. Pittsburgh: University of Pittsburgh Press.

REFERENCES

- . 1965. *Beyond the Edge of Certainty*. Englewood Cliffs, NJ: Prentice-Hall.
- , ed. 1970. *The Nature and Function of Scientific Theories*. Pittsburgh: University of Pittsburgh Press.
- Conant, James B. et al., eds. 1957. *Harvard Case Histories in Experimental Science*, vol. 1. Cambridge: Harvard University Press.
- Crombie, Alistair C., ed. 1963. *Scientific Change*. New York: Basic Books.
- D'Abro, A. 1951. *The Rise of the New Physics*, 2d ed. New York: Dover.
- Danto, Arthur, and Sidney Morgenbesser, eds. 1960. *Philosophy of Science*. New York: Meridian Books.
- Darwin, Charles. 1986. *Diary of the Voyage of H.M.S. Beagle*, edited from the MS by Nora Barlow. London: William Pickering.
- d'Espagnat, Bernard. 1965. *Conceptions de la physique contemporaine; les interpretations de la mecanique quantique et de la mesure*. Paris: Hermann.
- Duhem, Pierre. 1962. *The Aim and Structure of Physical Theory*, translated by Phillip P. Wiener. New York: Atheneum.
- Düring, Ingemar. 1966. *Aristoteles: Darstellung und Interpretation seines Denkens*. Heidelberg: Winter.
- Ellis, Brian. 1965. "The origin and nature of Newton's laws of motion." In *Beyond the Edge of Certainty*, edited by Robert G. Colodny. Englewood Cliffs, NJ: Prentice-Hall.
- Faraday, Michael. 1959. "Observations on mental education." In *Experimental Researches in Chemistry and Physics*. London: R. Taylor and W. Francis (Bruxelles: Culture et Civilisation, 1969).
- Feigl, Herbert, and May Brodbeck, eds. 1953. *Readings in the Philosophy of Science*. New York: Appleton-Century-Crofts.
- Feyerabend, Paul K. 1962. "Problems of microphysics." In *Frontiers of Science and Philosophy*, edited by Robert G. Colodny. Pittsburgh: University of Pittsburgh Press.
- . 1964. "A note on the problem of induction." *Journal of Philosophy* 11.
- . 1965a. "Problems of empiricism." In *Beyond the Edge of Certainty*, edited by Robert G. Colodny. Englewood Cliffs, NJ: Prentice-Hall.
- . 1965b. "Reply to criticism." In *Boston Studies in the Philosophy of Science*, vol. 2, edited by Robert S. Cohen and Marx W. Wartofsky. Dordrecht-Holland: Reidel.
- . 1967a. "Bemerkungen zur Geschichte und Systematik des Empirismus." In *Grundfragen der Wissenschaften und ihre Wurzeln in der Metaphysik*, edited by Paul Weingartner. Salzburg: Pustet.
- . 1967b. "On the improvement of the sciences and the arts, and the possible identity of the two." In *Boston Studies in the Philosophy of Science*, vol. 3, edited by Robert S. Cohen and Marx W. Wartofsky. Dordrecht-Holland: Reidel.

REFERENCES

- . 1969. "A note on two 'problems' of induction." *Synthese* 20: 251–53.
- . 1970a. "Against method." In *Minnesota Studies in the Philosophy of Science*, vol. 4, edited by Michael Radner and Stephen Winokur. Minneapolis: University of Minnesota Press.
- . 1970b. "Consolations for the specialist." In *Criticism and the Growth of Knowledge*, edited by Imre Lakatos and Alan Musgrave. London: Cambridge University Press.
- . 1970c. "Problems of empiricism II." In *The Nature and Function of Scientific Theories*, edited by Robert G. Colodny. Pittsburgh: University of Pittsburgh Press.
- Friedrichs, Robert W. 1970. *A Sociology of Sociology*. New York: Free Press.
- Gadamer, Hans G. 1960. *Wahrheit und Methode* (Truth and Method). Tübingen: J. C. B. Mohr.
- Galtung, Johan. 1967. *Theory and Methods of Social Research*. Oslo: Universitetsforlaget.
- Gellner, Ernest. 1968. "The new idealism—cause and meaning in the social sciences." In *Problems in the Philosophy of Science*, edited by Imre Lakatos and Alan Musgrave. Amsterdam: North-Holland.
- Glass, Bentley. 1963. "The establishment of modern genetical theory." In *Scientific Change*, edited by Alistair C. Crombie. London: Heinemann.
- Grene, Marjorie. 1969. *The Anatomy of Knowledge*. London: Routledge and Kegan Paul.
- Gruenberg, Benjamin C. 1929. *The Story of Evolution*. New York: D. Van Nostrand.
- Habermas, Jürgen. 1967. "Zur Logik der Sozialwissenschaften." *Philosophische Rundschau*, Beiheft 5.
- . 1968a. "Erkenntnis und Interesse." In *Technik und Wissenschaft als "Ideologie"*. Frankfurt: Suhrkamp. English translation in *Inquiry* 9.
- . 1968b. "Technik und Wissenschaft als 'Ideologie.'" In *Technik und Wissenschaft als "Ideologie"*. Frankfurt: Suhrkamp. Also in *Man and World* 1.
- . 1968c. *Erkenntnis und Interesse*. Frankfurt: Suhrkamp.
- Hanson, Norwood R. 1958. *Patterns of Discovery*. London: Cambridge University Press.
- Hempel, Carl Gustav. 1952. *Fundamentals of Concept Formation in Empirical Science*, International Encyclopedia of Unified Science, vol. 2, no. 7. Chicago: University of Chicago Press.
- Holton, Gerald T., and Duane H. D. Roller. 1958. *Foundations of Modern Physical Science*. Reading, MA: Addison-Wesley (London: Addison-Wesley, 1962).

REFERENCES

- Holtsmark, T. 1969. "Goethe and the phenomenon of color." In *The Anatomy of Knowledge*, edited by Marjorie Grene. London: Routledge and Kegan Paul.
- Horkheimer, Max. 1968. *Kritische Theorie*, vol. 2. Frankfurt am Main: S. Fischer.
- Horkheimer, Max, and Theodor W. Adorno. 1969. *Dialektik der Aufklärung*. Frankfurt am Main: S. Fischer.
- Johansen, Knud F. 1964. *Studier over Platons Parmenides i dens forhold til tidligere platoniske dialogers*, Ph.D. diss. Copenhagen: Munksgaard.
- Kneale, William C. 1968. "Scientific revolution forever?" *British Journal for the Philosophy of Science* 19: 27–42.
- Kockelmans, Joseph J. 1968. *Philosophy of Science: The Historical Background*. New York: Free Press.
- Koestler, Arthur. 1959. *The Sleepwalkers*. London: Hutchinson.
- Kramers, Hendrik A. 1956. *Collected Scientific Papers*. Amsterdam: North-Holland.
- Kuhn, Thomas S. 1962. "The structure of scientific revolutions." In *International Encyclopedia of Unified Science*, vol. 2, no. 2. Chicago: University of Chicago Press.
- Kyburg, Henry E., Jr. 1968. "The rule of detachment in inductive logic." In *The Problem of Inductive Logic*, edited by Imre Lakatos. Amsterdam: North-Holland.
- Lakatos, Imre. 1963. "Proofs and refutations I." *British Journal for the Philosophy of Science* 14: 1–25, 120–39, 221–43, 296, 342.
- . 1968a. "Criticism and the methodology of scientific research programs." *Proceedings of the Aristotelian Society*, October 28, 1968, 69: 149–86.
- . 1968b. *The Problem of Inductive Logic*. Amsterdam: North-Holland.
- . 1970. "Falsification and the methodology of scientific research programs." In *Criticism and the Growth of Knowledge*, edited by Imre Lakatos and Alan Musgrave. London: Cambridge University Press.
- . 1971. "Popper on demarcation and induction" MS. In *The Philosophy of Sir Karl Popper*, edited by Paul Schilpp (La Salle, Ill: Open Court, 1974).
- Lakatos, Imre, and Alan Musgrave. 1968. *Problems in the Philosophy of Science*. Amsterdam: North-Holland.
- . 1970. *Criticism and the Growth of Knowledge*. London: Cambridge University Press.
- Lange, Friedrich Albert. 1873. *Geschichte des Materialismus und Kritik seiner Bedeutung in der Gegenwart*, 2. verb. und verm. Aufl. 1. und 2. Buch. Iserlohn: Baderker.
- Marcuse, Herbert. 1964. *One-Dimensional Man*. Boston: Beacon Press.
- Morrison, Philip. 1965. "The physics of the large." In *Beyond the Edge of Certainty*, edited by Robert G. Colodny. Englewood Cliffs, NJ: Prentice-Hall.

REFERENCES

- Müller-Markus, Siegfried. 1966. "Niels Bohr in the darkness and light of Soviet philosophy." *Inquiry* 9.
- Naess, Arne. 1936. *Erkenntnis und wissenschaftliches Verhalten*. Oslo: I kommisjon hos J. Dybwad.
- . 1937. "Erkenntnis und wissenschaftliches Verhalten: Entgegnung von A. Naess auf die Bemerkungen von H. J. Pos." *Theoria* 3: 117–24.
- . 1937–38a. "Contribution to discussions." *Erkenntnis* 7.
- . 1937–38b. "Über die Funktion der Verallgemeinerung." *Erkenntnis* 7.
- . 1948. "Notes on the foundations of psychology as a science." *Filosofiske Problemer*, no. 9, stencil.
- . 1949. *Innføring i logikk og metodelære*. Oslo: Universitetsforlaget.
- . 1953a. *An empirical study of the expressions "true," "perfectly certain" and "extremely probable."* Oslo: I kommisjon hos J. Dybwad.
- . 1953b. *Interpretation and Preciseness*. Oslo: I kommisjon hos J. Dybwad. (SWAN I)
- . 1959. *Via Metaempirica and Possibilism*. Stenciled translation of Norwegian edition. Berkeley: University of California (Oslo, 1953).
- . 1961. *Symbolisk logikk*, 3d ed. Oslo: Universitetsforlaget (Oslo, 1942).
- . 1964. "Pluralistic theorizing in physics and philosophy." *Danish Yearbook of Philosophy*, vol. 1.
- . 1965. "Science as behavior: Prospects and limitations of a behavioral metascience." In *Scientific Psychology*, edited by Benjamin B. Wolman. New York: Basic Books. (in SWAN IX)
- . 1966. *Communication and Argument*. London: Allen and Unwin. (SWAN VII)
- . 1967. "Physics and the variety of world pictures." In *Grundfragen der Wissenschaften und ihre Wurzeln in Metaphysik*. Salzburg: Pustet.
- . 1969. *Hvilken verden er den virkelige?* Oslo: Universitetsforlaget.
- . 1970. "A plea for pluralism in philosophy and physics." In *Physics, Logic and History*, edited by Wolfgang Yourgrau. Denver: Plenum Press. (in SWAN IX)
- Nagel, Ernest. 1960. "Probability and degree of confirmation." In *Philosophy of Science*, edited by Arthur Danto and Sidney Morgenbesser. New York: Meridian Books.
- . 1961. *The Structure of Science*. New York: Harcourt, Brace and World.
- Needham, Joseph. 1963. "Poverties and triumphs of the Chinese scientific tradition." In *Scientific Change*, edited by Alistair C. Crombie. New York: Basic Books.

REFERENCES

- Ostwald, Wilhelm. 1917. *Grundriss der allgemeinen Chemie*, 5. Aufl. Dresden: T. Steinkopff.
- Parsons, Talcott. 1968. *The Structure of Social Action*. London: Collier-Macmillan.
- Polak, Frederik L. 1961. *The Image of the Future*, vol. 1. New York: Oceana (Leyden: Sythoff, 1961).
- Polanyi, Michael. 1958. *Personal Knowledge*. London: Routledge and Kegan Paul.
- . 1967. "Science and reality." *British Journal for the Philosophy of Science* 18: 177–96.
- Popper, Karl R. 1961. *The Logic of Scientific Discovery*. New York: Basic Books (New York: Science Editions, 1959).
- . 1963. *Conjectures and Refutations*. London: Routledge and Kegan Paul (New York: Basic Books, 1962).
- . 1968. "Remarks on the problems of demarcation and rationality." In *Problems in the Philosophy of Science*, edited by Imre Lakatos and Alan Musgrave. Amsterdam: North-Holland.
- Quine, Willard Van Orman, 1953. "Two dogmas of empiricism." In *From a Logical Point of View*. Cambridge: Harvard University Press.
- Radner, Michael, and Stephen Winokur, eds. 1970. *Minnesota Studies in the Philosophy of Science*, vol. 4. Minneapolis: University of Minnesota Press.
- Radnitzky, Gerard. 1968. *Continental Schools of Metascience*, vols. 1 and 2. Göteborg: Akademiförlaget.
- Riesenfeld, Ernest. 1939. *Lehrbuch der anorganischen Chemie*, vol. 2. neubearb. Aufl. Wien: Franz Deuticke.
- Robson, Reginald A. H. 1968. "The present state of theory in sociology." In *Problems in the Philosophy of Science*, edited by Imre Lakatos and Alan Musgrave. Amsterdam: North-Holland.
- Rosenthal, R., and K. L. Fode. 1963. "The effect of experimenter bias on the performance of the albino rat." *Behavioral Science* 8.
- Rutherford, Ernest. 1911. "The scattering of α and β particles by matter and the structure of the atom." *Philosophical Magazine and Journal of Science* 22.
- Schilpp, Paul. 1971. *The Philosophy of Karl Popper*. La Salle, Ill.: Open Court.
- Schlegel, Richard. 1967. *Completeness in Science*. New York: Appleton-Century-Crofts.
- Schweitzer, Albert. 1913, 1951. *Geschichte der Leben-Jesu-Forschung*. Tübingen: J. C. B. Mohr.
- Spearman, Charles. 1937. *Psychology Down the Ages*, 2 vols. London: Macmillan.
- Spinner, Helmut F. 1968. "Theoretical pluralism," *Kommunikation* 4.

REFERENCES

- Spinoza, Benedictus de (Baruch). 1928. *The Correspondence of Spinoza*, translated and edited with introduction and annotations by Abraham Wolf. London: Allen and Unwin.
- Tennessen, Herman. 1959. "On worthwhile hypotheses," *Inquiry* 2.
- Timasheff, Nicholas S. 1957. *Sociological Theory: Its Nature and Growth*, rev. ed. New York: Random House.
- Velikovsky, Immanuel. 1950. *Worlds in Collision*. London: Gollancz.
- Vigier, Jean-Pierre. 1965. *Existentialismus und Marxismus: Eine Kontroverse zwischen Sartre, Garaudy, Hyppolite, Vigier, und Orsel. Mit einem Beitrag von Alfred Schmidt*. Frankfurt am Main: Suhrkamp.
- Wartofsky, Marx W., ed. 1963. *Boston Studies in the Philosophy of Science*, vol. 1. Dordrecht-Holland: Reidel.
- . 1967. "Metaphysics as heuristics for science." In *Boston Studies in the Philosophy of Science*, vol. 3, edited by Robert S. Cohen and Marx W. Wartofsky. Dordrecht-Holland: Reidel.
- Watson, James D. 1968. *The Double Helix*. New York: Atheneum.
- Wehr, Mentzer R., and James A. Richards. 1960. *Physics of the Atom*. Reading, MA: Addison-Wesley.
- Weingartner, Paul, ed. 1967. *Grundfragen der Wissenschaften und ihre Wurzeln in der Metaphysik*. Salzburg: Pustet.
- Wellmer, Albrecht. 1967. *Methodologie als Erkenntnistheorie*. Frankfurt am Main: Suhrkamp.
- Whyte, Lancelot L. 1963. "Some thoughts on certainty in physical science." *British Journal for the Philosophy of Science* 14: 32–38.
- Williams, Leslie P. 1968. "Epistemology and experiment: a reply." In *Problems in the Philosophy of Science*, edited by Imre Lakatos and Alan Musgrave. Amsterdam: North-Holland.
- Winch, Peter. 1958. *The Idea of a Social Science*. London: Routledge and Kegan Paul.
- . 1964. "Understanding a primitive society." *American Philosophical Quarterly* 1.
- Wolman, Benjamin B. 1965. *Scientific Psychology*. New York: Basic Books.
- Yourgrau, Wolfgang, ed. 1970. *Physics, Logic and History*. New York: Plenum Press.
- Zetterberg, Hans L. 1965. *On Theory and Verification in Sociology*, 3d ed. Totowa, NJ: Bedminster Press.
- Zinkernagel, Peter. 1962. *Conditions for Description*, translated by Olaf Lindum. New York: Humanities Press.

Index

- abandonment of theories
 - due to weak disconfirmatory instance, 27–28
 - and economics, 47
 - reasons for compared to social rejection and ostracism, 46–47
 - without refutation, 15, 48
- accumulation of knowledge, 8
 - noncognitive accumulation in science, 110
- accumulative nature of science, 1, 86
- Adorno, Theodor, 127–28, 144n10
- Agassi, Joseph, 99, 102, 139n3
 - science as interpretation of metaphysical views, 143n13
- anarchism in methodology, 98, 106
- “Anything is possible!” *See* possibilist slogan
- Apel, Karl O., 144n8
- appearance of continuity, 43–44
- approximation to truth, 2
- Ardrey, Robert, 143n6
- Aristotle’s physics, 111
- Aron, Raymond, 65
- Asch, Solomon E., 121
- Austin, John L., 78
- autonomous sciences, 1

- Ballungen*, 135, 142n5, 144n1
- Bernal, John D., 73
- Bernard, Luther L., 43
- Bernheim, Ernst, 143n3
- bias verification in experiments, 121
- Bohr, Niels, 15, 58–59
 - response to argument against quantum mechanics, 83–84
- Boltzmann, Ludwig E., 71
- Bondi, Hermann, 142n7
- Boring, Edwin G., 71
- Boyle, Robert, 104
- Bridgman, Percy W., 14, 122
- Brunswik, Egon, 31, 137

- Burt, Edwin A., 99
- Butterfield, Herbert, 139n3

- Carnap, Rudolf, 139n1
 - influence on Naess, 135, 138
 - theory and power to predict new empirical laws, 67
 - theory, conceptualization of, 51, 52, 141n1
- central assertions, 19, 20
- Chadwick, James, 19
- Christiansen, B., 33
- cognition theories
 - and initial conditions, 20
 - integration of empirical and *praxis* models, 26
- cognitive content of theories, changes in, 61, 63
- Cohen, Robert S., 139n3
- coherence and general systems, 103
- coherence theories of truth and connectability, 90–91
- coherence view of science, 87, 98
- comparability of theories, 96–98
- competing theories
 - derivability and, 67
 - and metatheories of observation, 24
 - rank dimensions, 27
 - theory-observation relation, 40–41
 - See also* theories
- completed theories, 87–88
- completeness in science, 88
- Comte, Auguste, 111
- Conant, James B., 139n3
- confirmatory instances, 9
- conformity within science
 - abandonment of a theory, 27
 - Glass on, 13
 - group psychology and conformance, 121
 - possibilism diminishes, 127
 - “scientifically” sanctioned conformism, 127

INDEX

- connectability, 90–91
- constancy of energy principle and impossibility, 74
- Copernican theory
 - possibilist slogan supports, 93–94
 - pre-Copernican cosmology conflict, 20, 141n9
 - “the” Copernican theory, 61–62
- crazy ideas, 89–90, 92
- critical attitude
 - immanent not transcendental criticism, 119–20
 - of the new historiographer, 5–6
- Crombie, Alistair C., 139n3
- crucial experiments and the overthrowing of research programs, 12
- cultural background
 - and observation, 25
 - social context of communities, 118–19
 - of Spinoza, 127
- D’Abro, A., 59, 60
- Dalton, John, 10–11
- Darwin, Charles, and the theoretical idea, 63–64
- definiteness of intention, 16, 72, 128–30
 - limitation of, 72
- definitive completeness and theories, 87–88
- derivability
 - and competing theories, 67
 - derivations may crop up at any time, 68
 - of an idea, 63
 - indefiniteness of theory content and, 66–67
 - of laws from mutually inconsistent theories, 43–45
 - pluralism of derivation, 44
 - of a theory, 63
 - theory and power to predict new empirical laws, 67
 - of theory from laws, 45–46
- Descartes, René, 105, 110
- d’Espagnat, Bernard, 126
- Dijksterhuis, Eduard J., 139n3
- Dilthey, Wilhelm, 133
- disconfirmatory instances, 9
- discrimination and preciseness, 128–30
 - levels illustrated, 129
- dogmatism
 - acceptance of theories and, 13–14
 - in scientific communities, 72, 83
- Duhem, Pierre, 14
 - derivability and agreement of theory and established laws, 42–43
 - experimental check on a theory, 45–46
 - laws and theory, 45–46
 - on Poincaré, 140n4
 - reformulation of contextual testing, 17
 - testing of isolated hypothesis, 15–16, 41
 - theory, narrow conceptualization of, 51–52
 - See also* Mach-Duhem-Poincaré principle
- Düring, Ingemar, 143n2
- echolalia and historians, 5
- economics and theory rejection, 47
- Einstein, Albert, 84, 86
- Ellis, Brian, 105, 139n3, 142n4
- empirical cognition, 25, 120
- empirical laws
 - mutually inconsistent theories and derivation of, 44
 - theory and power to predict, 67
 - See also* laws
- Epicurus, 103
- essential definition of a theory, 53
- everyday formulations. *See* T₀-formulation
- experience
 - inexhaustibility of, 80
 - and observation, 25–26
- experiments
 - bias verified by, 121
 - crucial experiments, 12
 - of Gay-Lussac, 10, 11
 - inconclusive due to problems with initial conditions, 18–19
 - philosophical ignorance impedes, 104
 - of seventeenth-century scientists, 7–8
 - See also* testability
- experimentum crucis*, 11
- Faraday, Michael, 93
- Feyerabend, Paul K., 105, 126, 139n3
 - “any idea can become plausible,” 85
 - cognition theories, 20
 - on comparing two successive theories, 96–97, 98
 - confirmatory instances, dispensing with, 9, 10
 - Copernican and pre-Copernican cosmology conflict, 20, 141n9
 - on elaboration of new cosmology, 84
 - Galileo and testing of his theories, 62
 - hedonistic proclamation of, 36, 98
 - Nordic god Thor comparison, 144n6
 - refuted theories, desirability of working with, 39, 141n8

INDEX

- theories and different interpretations of, 53
- Fode, K. L., 144n5
- Frank, P., 135
- freedom of choice, 127, 128–30
- free society and “genuine” science as a threat, 33
- Freud, Sigmund, 31
- futurology, 116–17

- Gadamer, Hans G., 139n7, 139n8
- Galileo
 - influences of, 105
 - testing of his theories, 62
- Galtung, Johan, 26
- Gay-Lussac, Joseph-Louis, 10, 11
- Gellner, Ernest
 - on characteristics of societies, 7
 - rejection of Wittgensteinian social science of Winch, 117–18
- general systems. *See* systems (general)
- Glass, Bentley, 13
- Gruenberg, Benjamin C., 121

- Habermas, Jürgen, 56
 - dependence of methodological frameworks on research interests, 112
 - and “scientifically” sanctioned conformism, 127
- Hanson, Norwood R., 78, 79, 80, 142n4
- hedonistic proclamation of Feyerabend, 36, 98
- Hegel, Georg, 133
- Hegelian perspective
 - new historiography of science and, 117
 - worldview typology is self-defeating, 133
- Helmholtz, Hermann von, 21, 56
- Hempel, Carl Gustav, 139n1
- Herbart, Johann Friedrich, 105
- historical scepticism, 110–11
- historiography
 - critical attitude toward, 5–9
 - cultural context of, 120
 - as echolalia, 4–5
 - job of the critical historian, 7
 - meaning of, 139n5
 - mutually incompatible historical accounts, 111
 - new historiography
 - applied to itself, 109–33
 - Kuhn and, 113–15
 - outline of conclusions about, 124–25
 - suspension (*Aufhebung*) of, 117
 - transcending one’s historical situation, 117
 - nonaccumulative historiography, 110–19
 - pluralism, historiological, 119–25
 - and rejection of theories, 46–47
 - social context of, 119
 - theoretical idea rather than exposition of theory important, 94
- historiology, meaning of, 139n5
- Holton, Gerald T., 139n1
- Holtsmark, T., 89
- Horkheimer, Max, 127–28, 144n10
- Hull, Clark L., 31, 33, 67, 138
- human values and research policy, 35
- Hume, David, 75
- hunches and theory, 56–57
- hypothetico-deductive systems
 - Duhem on physical theory, 51–52
 - social science theorizing and, 65
 - Vienna Circle and, 137

- ideas and theory, 55–56, 63
 - “any idea can become plausible,” 85
 - Bohr’s theory, Bohr’s ideas, 58–59
 - crazy ideas, 89–90, 92
 - Darwin’s theoretical idea, 63–64
 - heuristic role of ideas, 98
 - idea rather than exposition of theory important, 94
 - inexhaustiveness of, 88–89
 - loose, fragmentary ideas, 57
 - revival of ideas, 95
 - undefinable nature of, 65–66
 - See also* theories
- impossibility
 - possibilist slogan and, 73
 - possibility of impossible physical event, 37–38
 - proofs have little weight, 75
 - proofs of, 73–74
- incomparability and methodologies, 95–98
- indefiniteness, value of, 68
- index tabulation regarding status of a theory, 48–49
- inexhaustiveness of ideas, 88–89
- initial conditions
 - and contextuality of testing, 18
 - as total class of central and peripheral assertions, 20
 - See also Randbedingungen* sentences
- instances. *See* confirmatory instances; disconfirmatory instances
- institutionalized vigilance of science, 105
- instrumentalism, 39, 126, 141n7, 142n4

INDEX

- interdeterminacy relation, 130
 - intersubjectivity, intercultural agreement and science, 105
 - isolated hypothesis
 - Duhem on testing experimentally, 14–16
 - testing of hypothesis and nothing else, 41–42
- Jammer, Max, 139n3
- Jaspers, Karl, 133
- Johansen, Knud F., 143n1
- Joule, James Prescott, 56
- joy in research (hedonistic proclamation), 36, 98
- Kneale, William C., 88
- knowledge, research as striving for, 83
- Kockelmans, Joseph J., 143n3
- Koestler, Arthur, 3
- Koyré, A., 139n3
- Kramers, Hendrik A., 65–66
- Kuhn, Thomas S., 139n3
 - on reformulation of theory, 141n3
 - relativism in regard to new historiography, 113–15
 - way of doing science, old and new, 109–10
 - See also* scientific revolution
- Lakatos, Imre, 126, 139n3
 - critical standards of growth of science, 34–35
 - crucial experiments, 12
 - metaphysics and science, 104
 - Naess questions Lakatos's fairness about psychoanalysis, 140n5
 - progress and growth rate of science highly valued by, 106
 - research programs, notions of, 58, 107
 - scientists' understanding of science is limited, 144n4
 - "Truth does not flow upwards," 122
- Lange, Friedrich Albert, 103
- language and formulation of theories, 78–80
- Laudan, Larry, 139n3
- laws
 - derivability of laws from mutually inconsistent theories, 43–45
 - law sentence assertion, 78–79, 80
 - and physical necessity, 76–77
 - theory and power to predict new empirical laws, 67
- laws of motion, multiplicity of interpretations of, 61, 79, 142n4
- Lewin, K., 31
- Lodge, Sir Oliver, 142n1
- logic of indices, 48–49
- Mach-Duhem-Poincaré principle
 - formulation of, 37
 - indefinite multiplicity of theories, 122
 - and observation, 23
 - pluralism of derivation of, 44
 - in social science, 122
 - See also* metatheory
- Mach, Ernst, 86, 112
- many-many relation, 23, 24
- Marcel, Gabriel, 132
- Marcuse, Herbert, 56
 - and "scientifically" sanctioned conformism, 127
- "marriage" example of Gellner, 118
- mature science, immature science and, 99
- mature theories, 87–88
 - Kuhn on, 109
- Mayer, Julius Robert, 55–56
- Merton, Robert, 105
- metaphysical theories, 92
- metaphysics
 - defined by Wartofsky, 99
 - as near-total system, 102
 - and science, 98–106
 - and systematizations of scientific results, 101–02
 - two-way criticism with science, 104
- metascience, 81
- metatheory
 - of confirmation and disconfirmation, 32–33
 - of observation, 23–25, 120, 123
 - pluralist approach to scientific theorizing, 94
 - See also* Mach-Duhem-Poincaré principle
- methodological prediction, 16, 139n1
- methodologies
 - dependence on research interests, 112
 - pluralism of, 95–98
- mirroring conception of theory, 56
- Mises, R. von, 90
- monthly bulletins on the status of a theory, 48–49
- Morrison, Philip, 68
- Müller-Markus, Siegfried, 15
- Naess, Arne, 1, 122n7, 143n5, 143n15, 144n9
 - definiteness of intention and preciseness, 128
 - dialectic aspect of possibilism, 142n3

INDEX

- Encyclopedia of Unified Science* activities, 137
 nonphilosophers' empiricism, 120
 relative strength of an assertion, 140n2
 theoretical ideas as point-of-departure for-
 mulations for precisizations, 142n5
 and the Vienna Circle, 135–38
 Nagel, Ernest, 38–39, 52, 141n3, 141n7
 near-total systems, 100–101
 neat image of science, 1–2
 Needham, Joseph, 105
 Neurath, Otto, 136
 Ballungen, 135, 142n5, 144n1
 new, gaudy image of science, 2–3
 and philosophy, 3–4
 new historiography. *See under* historiography
 nonaccumulative historiography, 110–19
 nonaccumulative knowledge in science, 109–10

 observation
 conflict with theory, 62
 groups and conformance of, 121
 metatheory of, 23–25, 120, 123
 multiple witnesses and multiple accounts,
 121
 plurality of conceptions, 122–23
 problems with in regard to historiography,
 120–23
 proliferation of theories of, 21–22
 See also testability
 Oldenburg, Henry, 104
 one-many relation between a theory and versions
 of a theory, 68
 operationalism, 14
 optimist epistemology, 100

 Parsons, Talcott, 54
 Pauling, Linus, 77
 Pavlov, Ivan P., 121
 peripheral conditions, 19–20
perpetuum immobile, 43
perpetuum mobile claim, 75–76, 78
 personal freedom and possibilism, 127–28
 phenomenon identification. *See* observation
 philosophies of history, 111
 physical necessity, 76–77
 Piaget, Jean, 31
 Planck, Max, 60
 Platonism, 111
 pluralism
 applicability widespread, 80
 of approaches rare in research communities,
 105
 conception of images that fit observations,
 112–13
 of derivation, 44
 historical note on possibilistic pluralism,
 135–38
 historiological pluralism, 119–25
 of interpretations of theories, 61–62, 67–68
 in methodology, 95–98
 in philosophy, 105
 possibilism and alternative theory considera-
 tion, 93
 of refutation, 46–49
 relationalism not relativism, 123
 scientific theorizing, 94
 Poincaré, Henri
 Duhem on, 140n4
 See also Mach-Duhem-Poincaré principle
 point-of-departure formulations, 66, 142n5
 about general systems, 103
 point-of-view, possibilist formulations about,
 131–33
 Polak, Frederik L., 116
 Polanyi, Michael, 65, 89, 139n3
 on Copernicus, 93
 political advantages of freedom from conformity,
 127
 politicians and scientists, truth-value of utter-
 ances of, 5
 Popkin, Richard, 139n3
 Popper, Karl R., 48, 92, 126, 139n1, 139n3,
 143n12
 influence on Naess, 135, 136, 137, 138
 Naess questions Popper's fairness about psy-
 choanalysis, 33, 140n5
 progress and growth rate of science highly
 valued by, 106
 psychoanalysis as pseudoscience, 33, 34
 rejection of coherence by, 91
 structurally different worlds, 77
 theory, use of term by, 51
 possibilism
 “any idea can become plausible,” 85
 conforming effect diminished by, 127
 formulations proposed, 131–33
 general possibilism, 125–33
 historical note on possibilistic pluralism,
 135–38
 and permissiveness, 89–92
 personal freedom and, 127–28
 Popper's view on different worlds consistent
 with, 77
 and reflection, 82

INDEX

- possibilistic pluralism, historical note on, 135–38
- possibilist slogan, 72–75
 - for consumers of research, 73
 - only for use in research situations, 92
 - overworking of, 86
 - and *praxis*, 82–83
 - Pyrrhonian sceptics, 82
 - theory consideration in atmosphere of pluralism, 93
- possibilities from wider perspectives, 37–38
- possibility, new theory as, 40
- postulates of impotency, 73, 74
- praxis*
 - and acceptance of possibilist slogan, 82–83
 - meaning of, 139n6
 - of scientists, 7
 - theory proliferation, 92–94
- preciseness, 128–30
- precization, 85, 89
 - departure from everyday formulations and survey precizations, 66
 - philosophical systems as, 103
- pseudoscience, 33, 34
- psychology
 - group psychology and conformance, 121
 - instinct theories, 43
 - intuitive ranking of broad theories in, 28–31
 - learning theories in, 67
 - philosophical psychology of Herbart, 105
 - pluralism of, 137–38
 - as pseudoscience, 33
 - types of theories compared (table), 31
 - of witnessing, 121
- Putnam, Hilary, 142n4
- Quine, Willard Van Orman, 36
- Ramanujan, 95
- Randbedingungen* sentences, 18
 - experimental setup expressed as, 19
 - peripheral conditions, 19–20
 - See also* initial conditions
- rank dimensions of theories, 26–38
 - Galtung's ten dimensions, 26
 - multiplicity of, 27
 - psychology theories compared (table), 31
 - strength of assertion and, 28
- rationality and research policy, 35–36
- rational process and neat image of science, 1
- reality, metalevel models mistaken for, 27
- reflection and possibilism, 82
- refutation
 - absence of and death of a theory, 15, 48
 - absence of and development of research, 38
 - difficulty determining, 4–5
 - historical perspective, 9–12
 - imperfect decidability of the weight of, 45
 - index tabulation for, 48–49
 - and lack of crucial experiments, 12
 - pluralism of concepts of, 46–49
 - pragmatic-heuristic component of conceptions of, 38–41
 - social context of meaning of, 118
 - suspension (*Aufhebung*) not identical to, 117
- regulative ideas, metaphysical views function as, 102
- regulative ideas of philosophical systems, 103–04
- relative strength of an assertion, 17, 140n2
- relativism of Kuhn, 113–15
- relevance and criteria changes, 14–15
- research programs
 - intrinsic value of, 106–07
 - multiple communities and multiple interests, 35, 36
 - pedestrian tasks of, 99
 - pluralism in as a liberating force, 128
 - possibilistic slogan and, 73, 92
 - rationality of policy and value priorities, 35
 - relation to theories, 57–58
 - spiraling character of a project, 100
- revolution. *See* scientific revolution
- Robson, Reginald, 54
- Rosenthal, R., 144n5
- rules of correspondence, 52
- Rutherford, Ernest, 46
- Schlegel, Richard, 88
- Schlick, M., 135
- Schroedinger's wave equation, 32
- Schweitzer, Albert, 111
- science
 - a complete, 87–88
 - and general systems, outline of relationship, 101–02
 - institutionalized vigilance of, 105
 - interlocked with philosophy, 104–05
 - intersubjectivity and intercultural agreement, 105
 - and intrinsic value of research, 106–07
 - mature vs. immature ruled out, 99
 - meaning of, 104–05
 - metaphysical barbarism and, 99

INDEX

- and metaphysics, 98–106
- misinterpretations of the seventeenth century, 7–8
- neat image of, 1–2
- new, gaudy image of, 2–3
- pseudoscience and, 33–34
- as a social activity, 118–19
- two-way criticism with metaphysics, 104
- scientific revolution, 3
 - derivability and agreement of theory and established laws, 42–43
 - evolutionary compared to revolutionary, 87–88
 - open-mindedness of scientists, 81–82, 84
 - revolutionary theory defined, 87–88
 - social changes presupposed, 8
 - Watson open to re-evaluation of established laws, 77
 - See also* Kuhn, Thomas S.
- scientific worldview
 - dark side of, 33
 - expectation of is based on misconceptions of science, 125
 - monolithic, soul-shrinking jargon prevails, 130
 - political consequences of “scientifically” sanctioned conformism, 127
 - substitute for comprehensive worldview, 125
 - and the “unenlightened” public, 71–72
- Skinner, Burrhus F., 31
- social context of communities
 - criticism impossible from outside of, 118–19
 - cultural background and observation, 25, 127
- social determinism, 82
- social sciences
 - comparison of historiographies in, 120
 - mirroring conception of theory, 56
 - and natural sciences, is there a basic difference, 122
 - theory in, 54–55, 65
- Spearman, Charles, 15
- Spencer, Herbert, 1
- Spinner, Helmut, 33
- Spinoza, Benedictus de (Baruch), 110, 127
 - on Boyle’s experiments, 104
- suspension (*Aufhebung*) of the new historiography, 117
- systems (general)
 - cultural traditions and, 127
 - heuristic and systematic role of, 98–106
 - historical examples, 100–101
 - and metaphysics, outline of relationship, 101–02
 - near-total systems, 100–101
 - nontechnical utterances about, 102–03
 - philosophical systems, 98, 103–04
 - plurality of systems, 125, 126
 - and science, outline of relationship, 101–02
 - two-way criticism with science, 104
- T₀-formulation
 - applied to the pluralist thesis, 128–30
 - precise formations and, 98
- testability
 - broad contextual testing, 18–26
 - experimental setup, 14–15
 - initial conditions problems, 18–19
 - of isolated hypothesis, 14–16, 41–42
 - narrow contextual testing, 15–17
 - as a rank dimension, 26
 - true/false distinction of formal logic and, 38
 - See also* observation
- theoretical alternatives and drastic adjustments, 37
- theories
 - acceptability of, 87
 - authoritative formulation not required, 61
 - cognitive content of, 15
 - comparability of, 96–98
 - completed theories, 87–88
 - essential definition of, 53
 - formal or linguistic structure of, 53
 - function of, 94
 - generality of, 63
 - general structure, 52
 - “holding true,” 36–37
 - hunches and, 56–57
 - ideas and theory, 55–56
 - indefiniteness of content and derivability, 66–67
 - inexhaustible class of consequences of, 67–68
 - instances of disconfirmation/confirmation, 9
 - as instruments in specific contexts, 39, 141n7
 - language for formulation of, 78–80
 - life expectancy of, 13, 67–68, 71
 - mature theories, 87–88
 - modifications made to, 36–37, 59–60
 - mutually inconsistent, 43–45
 - naming, 58–61
 - observational basis of, 22

INDEX

theories (*continued*)

- observation conflicting with, 62
- one-many relation between a theory and versions of a theory, 68
- plurality of interpretations, 61–62, 67–68
- proliferation and diversity of *praxis*, 92–94
- refutation and verification, 5
- refuted theories, desirability of working with, 39, 141n8
- revivals of, 71–72, 85
- status
 - and long histories of, 11–12
 - monthly bulletins announcing, 48–49
 - within a scientific community, 6–7, 11–12
- terminology for discussing, 64
- “the” theory, 61
- truth implied, 142n4
- types of theories compared, 31
- unsurveyability of, 66–68
- variety of notions about, 51–58
- See also* abandonment of theories; competing theories; ideas and theory; testability
- theorizing
 - and images of the future, 116–17
 - sociology and, 54
 - theory distinguished from, 53–54
 - Watson on the discovery of DNA structure, 57
- Thurstone, Louis L., 31
- Timasheff, Nicholas, 65
- Tolman, Edward, 31, 67, 138
- true/false distinction of formal logic, 38

truth

- connectivity and coherence, 90–91
- implied in theories, 142n4
- typologies of general views, 3–4
- Uexküll, Jakob Von, 135
- uncertainties and the human need to combat, 143n6
- unsurveyability of theories, 66–68
- value priorities and policy choice, 32
- Vienna Circle and possibilistic pluralism, 135–38
- Vigier, Jean-Pierre, 99–100
- Waismann, F., 135
- Wartofsky, Marx W., 99, 101, 143n12
- Watson, James D., 57, 77
- Weingartner, Paul, 98
- Winch, Peter, 117–19
- wissenschaftliche Weltanschauung*. *See* scientific worldview
- Wittgenstein, Ludwig, 78, 118
 - pluralism and “form of life” holism of, 120
- Wolf, Abraham, 139n3
- working hypothesis, 57
 - choosing ones to work with, 92–93
- working theory, 57–58
- Yourgrau, Wolfgang, 143n7
- Zetterberg, Hans, 54, 55
- Zinkernagel, Peter, 142n4
- Zuordnungsdefinitionen*, 44, 52, 96

Arne Naess was born in Slemdal, Norway, in 1912. One of Norway's foremost philosophers, known especially for his innovative eco-philosophy, Naess began his work with peace studies, global justice, and human rights, and continued with environmental matters. The subjects of his scholarly work and interests include empirical semantics, logic and foundations of science, communication theory and practice, Spinoza, scepticism, gestalt ontology, and normative systems theory. Naess's contributions have been honored by many awards, including Norway's Peer Gynt Award, Denmark's Sonning Prize, the Nordic Council Award for Nature and Environment, the Uggla Prize for Humanistic Studies from Stockholm University, and the Mahatma Gandhi Prize for Non-violent Peace.

Naess graduated from the University of Oslo in 1933, studied in Paris and Vienna, and became the youngest person appointed to a full professorship of philosophy at the University of Oslo, where he worked from 1939 to 1969. Since 1970, he has continued his work as a philosopher, naturalist, and environmental activist. He has been involved with the University of Oslo's Center for Development and the Environment since 1991. The Arne Naess Chair in Global Justice and the Environment is being established at the university to encourage scholars to engage creatively with Naess's work and ideas, in particular to promote new insights into environmental issues and the challenges posed by globalization, and to develop ideas that will help to humanize the difficult and conflict-laden transition to sustainability. Naess holds honorary doctorates from Stockholm University and The Norwegian National University of Sports and Physical Education. He is also an honorary member of The Norwegian Alpine Club and The Norwegian Tourist Association.

In addition to writing countless articles and essays that have been translated into several languages and have appeared in anthologies and journals throughout the world, Naess is the author of numerous books, including *Life's Philosophy: Reason and Feeling in a Deeper World* and *Ecology, Community and Lifestyle*. He was founder and editor of the journal *Inquiry*, and has lectured in many countries. As a mountaineer, Naess was the first to climb Tirich Mir in Pakistan. In the 1930s, he built a hut on Hallingskarvet Mountain in Norway, where he spent much time reflecting upon and relating to the surroundings and native plants of his retreat. His respect and appreciation for diversity, wonderment, and our relationship

to the natural world has continued throughout his life and is reflected in the spirit of his work.

Naess currently lives in Oslo with his wife, Kit-Fai.

Harold Glasser, Ph.D. is Associate Professor of Environmental Studies at Western Michigan University in Kalamazoo, Michigan. He has been a visiting Senior Fulbright scholar at the Center for Development and Environment and Department of Philosophy, University of Oslo; a Resource Person for the United Nations University–Institute of Advanced Study; a visiting researcher at the International Institute for Applied Systems Analysis; and a lecturer at Schumacher College. He has written on environmental philosophy, policy, and planning, as well as green accounting, education for ecocultural sustainability, and campus sustainability assessment.

Alan R. Drengson, Ph.D. is Emeritus Professor of Philosophy at the University of Victoria, in Victoria BC Canada. He is a former Director of Environmental Studies and is currently an Adjunct Professor of Graduate Studies. He is the author of numerous articles, reviews, and books, as well as the editor of three anthologies and the founding editor of two journals, *The Trumpeter: Journal of Ecosophy* and *Ecoforestry*.

Designed by Tamotsu Yagi Design
Composed by Ralph Fowler and BookMatters in Garamond 3
Printed by Krips, Meppel on Cyclus Offset 90 gr/m2
Bound by Callenbach, Nijkerk in Elite and stamped with Colorit 922

Appendix I

Life of Gandhi: Chronology of *Satyāgraha*

[*Editor's note:* Liberal use has been made of the chronology of *satyāgraha* in Prabhu and Rao's *The Mind of Mahatma Gandhi*. The roman letters I–VI suggest the six phases of struggles.]

- 1868 Mohandas Karamchand Gandhi born October 2, youngest of three sons. Father: Karamchand (Kaba) Gandhi. Mother: Putlibai, his fourth wife. Caste: Vaishya (trading caste).
- 1876 Betrothed to Kasturbai, daughter of a merchant. Lives at Rajkot state.
- 1883 Marries Kasturbai.
- 1885 Father dies.
- 1887 Matriculation.
- 1888 Travels to London and therefore expelled from his caste. Studies jurisprudence. Lessons in dancing and music. Becomes a vegetarian. Does not experience race discrimination.
- 1889 Rediscovered the Bhagavad Gita. Lives in increasingly spartan manner.
- 1891 Called to the bar. Sails for India.
- 1892 Legal draftsman in Rajkot.
- I
- 1893 Sails for South Africa. Joins a Muslim legal firm. Exposed to crude race discrimination. Decides to stay in South Africa and fight discrimination.
- 1894 Advocate of Supreme Court of Natal. Studies Tolstoy, Koran, Bible.

APPENDIX I. LIFE OF GANDHI: CHRONOLOGY OF SATYĀGRAHA

- 1896 Picks up his family in India. Discovered by politician and religious philosopher Gokhale, who becomes Gandhi's *guru*.
- 1897 Continues fight against race discrimination. Attacked in Durban, hospitalized.
- 1899 Organizes Indian Ambulance Corps in Boer War.
- 1901 Returns to India. Practices in Rajkot.
- 1902 Sails for South Africa. Continues fighting.
- 1904 Organizes hospital during plague. Reads Ruskin's *Until This Last*. Finds a collective farm. Birth of "prophet" Gandhi.

II

- 1906 Supports home rule for India. Vow of chastity (*brahmacarya*) for life enhances nonpossession (*aparigraha*). Organizes first *satyāgraha* in Transvaal. Calls it passive resistance.
- 1908 Adopts term *satyāgraha*. Sentenced to prison after prosecution by General Smuts. Compromise with General Smuts results in release. Attacked and nearly killed by Pathans because of compromise with the opponent.
- 1909 Arrests and releases. Correspondence with Tolstoy.
- 1910 Tolstoy farm.
- 1913 Faces severe race discrimination. *Satyāgraha* march into Transvaal. Arrested. Released.
- 1914 Agreement with Smuts, "Indian Relief Act."
- 1915 Back to India. Continues fight for South Africa Indians.
- 1917 *Satyāgraha* on behalf of indigo plantation laborers.
- 1918 Fasting on behalf of textile workers.

III

- 1919 *Satyāgraha* against Rowlatt Bills. Arrested. Three hundred and seventy-nine killed at Amritsar. Confesses "Himalayan miscalculation" and suspends *satyāgraha*.
- 1921 Boycott of foreign cloth as part of escalating *satyāgraha* against British domination.

APPENDIX I. LIFE OF GANDHI: CHRONOLOGY OF SATYĀGRAHA

- 1922 *Satyāgraha* in Bardoli. Twenty-one members of police burned. *Satyāgraha* suspended. Sentenced to six years in prison. Writes *The Story of My Experiments with Truth*.
- 1924 Hospitalized. Released. Fast for Hindu-Muslim unity.

IV

- 1929 Declaration of complete independence for India.
- 1930 Salt march. Arrested with more than one hundred thousand others.
- 1931 Released. Irwin-Gandhi pact.
- 1932 Arrested. "Fast to death" concerning casteless people (*Harijan*).
- 1933 Starts weekly paper *Harijan*. Imprisoned. Released.
- 1934 Decides to retire from politics and devote himself to village industry.

V

- 1940 Meets Viceroy on war. Civil disobedience.
- 1942 "Quit-India" resolution. Arrested.
- 1944 Death of Kasturbai. Release. Talks with Jinnah on Pakistan.

VI

- 1946 Impending division of India and civil war between religious groups. Talks with Viceroy, Cripps, and others concerning independence and Pakistan. Riots in Calcutta.
- 1947 Tours riot-affected areas. Collaborates with new Viceroy, Mountbatten. Tries to quell riots.
- 1948 Works for settlement with Pakistan. Works for Muslim refugees. Bomb explosion at prayer meeting, January 20. Shot on way to prayer meeting, January 30.

Appendix II

Norms and Hypotheses: A Survey

First-Level Norm:

$N_1 \equiv$ Act in group struggle and act, moreover, as an autonomous person in a way conducive to long-term, universal, maximal reduction of violence (p. 57).

Second-Level Hypotheses:

$H_1 \equiv$ The character of the means used in a group struggle determines the character of the results (p. 59).

$H_2 \equiv$ In a group struggle, you can keep the goal-directed motivation and the ability to work effectively for the realization of goals stronger than the destructive, violent tendencies and the tendencies to passiveness, despondency, or destruction only by making a constructive program part of your total campaign and by giving all phases of your struggle, as far as possible, a positive character (p. 62).

$H_3 \equiv$ Short-term violence counteracts long-term universal reduction of violence (p. 63).

Second-Level Norms:

$N_2 \equiv$ Make a constructive program part of your campaign (p. 63).

$N_3 \equiv$ Never resort to violence against your opponent (p. 63).

$N_{4a} \equiv$ Choose that action or attitude that most probably reduces the tendency toward violence of all parties in a struggle (p. 64).

$N_{4b} \equiv$ Never act as a mere functionary, a representative of an institution, or an underling, but always as an autonomous, fully responsible person (p. 65).

APPENDIX II. NORMS AND HYPOTHESES: A SURVEY

Third-Level Hypotheses:

- $H_4 \equiv$ You can give a struggle a constructive character only if you conceive it and carry it through as a struggle in favor of human beings and certain values, thus eventually fighting antagonisms, but not antagonists (positive struggle) (pp. 66–67).
- $H_5 \equiv$ It increases your understanding of the conflict, of the participants, and of your own motivation to live together with the participants, especially with those for whom you primarily fight. The most adequate form for living together is that of engaging jointly in constructive work (p. 67).
- $H_6 \equiv$ If you live together with those for whom you primarily struggle and do constructive work with them, this will create a natural basis for trust and confidence in you (p. 67).
- $H_7 \equiv$ All human beings have long-term interests in common (p. 67).
- $H_8 \equiv$ Cooperation on common goals reduces the chance that the actions and attitudes of participants in conflict will become violent (p. 68).
- $H_9 \equiv$ You invite violence from your opponent by humiliating or provoking him (p. 68).
- $H_{10} \equiv$ Thorough understanding of the relevant facts and factors increases the chance of a nonviolent realization of the goals of your campaign (p. 68).
- $H_{11a} \equiv$ Incompleteness and distortion in your description of your case and the plans for your struggle reduce the chances both for a nonviolent realization of the goals and for the success of future struggles (p. 68).
- $H_{11b} \equiv$ Secrecy reduces the chance of a nonviolent realization of the goals of your campaign (p. 69).
- $H_{12} \equiv$ You are less likely to take on a violent attitude if you make clearer to yourself the essential points in your cause and struggle (p. 69).
- $H_{13} \equiv$ Your opponent is less likely to use violent means the better he understands your conduct and your case (p. 70).

APPENDIX II. NORMS AND HYPOTHESES: A SURVEY

- $H_{14} \equiv$ There is a disposition in every opponent such that wholehearted, intelligent, strong, and persistent appeal in favor of a good cause is able to convince him ultimately (general convincibility) (p. 70).
- $H_{15} \equiv$ Mistrust stems from misjudgment, especially of the disposition of your opponent to answer trust with trust and mistrust with mistrust (p. 71).
- $H_{16} \equiv$ The tendency to misjudge and misunderstand your opponent and his case in an unfavorable direction increases both his and your tendency to resort to violence (p. 71).
- $H_{17} \equiv$ You win conclusively when you turn your opponent into a believer and active supporter of your case (p. 72).

Third-Level Norms:

- $N_5 \equiv$ Fight antagonisms, not antagonists: conceive of your struggle and carry it through as a positive struggle in favor of human beings and certain values (p. 72).
- $N_6 \equiv$ Live together with those for whom you struggle and do constructive work for them (p. 73).
- $N_7 \equiv$ Try to formulate the essential interests that you and your opponent have in common and try to establish a cooperation with your opponent on this basis (p. 74).
- $N_8 \equiv$ Do not humiliate or provoke your opponent (p. 74).
- $N_9 \equiv$ Acquire the best possible understanding of the facts and factors relevant to the nonviolent realization of the goals of your cause (p. 74).
- $N_{10} \equiv$ Do your utmost to present unbiased descriptions, to be in full accordance with the truth when describing individuals, groups, institutions, and circumstances relevant to the struggle (pp. 74–75).
- $N_{11a} \equiv$ Do not use secret plans or moves or keep objectives secret (p. 75).
- $N_{11b} \equiv$ Withdraw the intended victim from the wrongdoer (p. 76).
- $N_{12} \equiv$ Announce your case and the goals of your campaign explicitly and clearly, distinguishing essentials from nonessentials (p. 77).

APPENDIX II. NORMS AND HYPOTHESES: A SURVEY

- $N_{13} \equiv$ Seek personal contact with your opponent and be available to him. Bring conflicting groups into personal contact (p. 77).
 $N_{14} \equiv$ Do not judge your opponent harder than yourself (p. 78).
 $N_{15} \equiv$ Trust your opponent (p. 78).
 $N_{16} \equiv$ Turn your opponent into a believer in and supporter of your case, but do not coerce or exploit him (p. 78).

Fourth-Level Hypotheses:

- $H_{18} \equiv$ You provoke your opponent if you deliberately or carelessly destroy his property (p. 79).
 $H_{19} \equiv$ Adequate understanding of your opponent presupposes personal empathy (p. 79).
 $H_{20} \equiv$ Avoiding misjudging and misunderstanding your opponent and his case requires understanding him and his case (p. 79).
 $H_{21} \equiv$ If you keep in mind your own fallibility and failures, you are less likely to exaggerate those of your opponent. Opponents are then less likely to be misjudged in an unfavorable way, and their case is also less likely to be underestimated intellectually or morally (p. 79).
 $H_{22} \equiv$ Every political action, your own included, is likely to be based, in part, on mistaken views and to be carried out in an imperfect way (universal imperfection) (p. 79).
 $H_{23} \equiv$ You make it difficult for your opponent to turn and support your case if you are unwilling to compromise on nonessentials (p. 79).
 $H_{24} \equiv$ It furthers the conversion of your opponent if he understands that you are sincere (p. 79).
 $H_{25} \equiv$ The best way of convincing your opponent of your sincerity is to make sacrifices for your cause (p. 80).
 $H_{26} \equiv$ During a campaign, change of its declared objective makes it difficult for opponents to trust your sincerity (p. 80).

Fourth-Level Norms:

- $N_{17} \equiv$ Do not destroy property belonging to your opponent (p. 80).

APPENDIX II. NORMS AND HYPOTHESES: A SURVEY

- $N_{18} \equiv$ Cultivate personal *Einfühlung* with your opponent (p. 81).
- $N_{19} \equiv$ Do not formulate your case, the goals of your campaign, or those of your opponent in a biased way (p. 82).
- $N_{20} \equiv$ Try to correct bias in your opponent only insofar as it is necessary for the campaign (p. 82).
- $N_{21} \equiv$ Keep in mind and admit your own factual and normative mistakes, and look for opportunities to correct your judgments (p. 82).
- $N_{22} \equiv$ Always be willing to compromise on nonessentials (p. 82).
- $N_{23} \equiv$ Do not exploit a weakness in the position of your opponent (p. 83).
- $N_{24} \equiv$ Be willing to make sacrifices and suffer for your cause (p. 83).
- $N_{25} \equiv$ During a campaign, do not change its objective by making its goals wider or narrower (p. 83).

Appendix III

Key Expressions in Norms and Hypotheses

Admit failure N_{21}	Humiliation H_9, N_8
Antagonisms H_4, N_5	Imperfection H_{22}
Availability N_{13}	Living together H_5, H_6, N_6
Bias $H_{11a}, N_{10}, N_{19}, N_{20}$	Long-term H_3, H_7, N_1
Change of objective H_{26}, N_{25}	Means and ends H_1, N_1
Coercion N_{16}	Mistakes H_{22}, N_{20}, N_{21}
Common goals H_8	Mistrust H_{15}
Common interests H_7, N_7	Misunderstanding H_{16}, H_{20}
Compromise H_{23}, N_{22}	Nature, human H_{14}
Confidence H_6	Personal contact N_{13}
Constructive character $H_4, H_5,$ H_6, N_6	Positive H_2, H_4, N_2, N_5
Constructive program H_2, N_2	Property destruction H_{18}, N_{17}
Constructive work H_5, H_6, N_6	Provocation H_9, H_{18}, N_8
Contact N_{13}	Sabotage $H_{18}, H_{23}, H_{25}, N_{17}$
Conversion H_{17}, H_{24}, N_{16}	Sacrifice H_{25}, N_{24}
Convincibility, general H_{14}	Secrecy H_{11b}, N_{11a}
Cooperation H_8, N_7	Sincerity H_{24}, H_{25}, H_{26}
Destruction of property H_{18}, N_{17}	Suffering N_{24}
Distortion H_{11a}	Support from opponent $H_{17}, H_{23},$ H_{24}, H_{25}, N_{16}
<i>Einfühlung</i> H_{19}, N_{18}	Truthful description N_{10}
Ends and means H_1, N_1	Trust $H_6, H_{15}, H_{26}, N_{15}$
Essentials $H_{12}, H_{23}, N_7, N_{12}, N_{22}$	Unbiased description N_{10}
Explicitness $H_{20}, H_{24}, N_9, N_{12}$	Understanding $H_5, H_{10}, H_{13}, H_{19},$ H_{20}, H_{24}, N_9
Exploit a weakness N_{23}	Violence H_9, H_{16}, N_3
Facts H_{10}, N_9	Violence, reduction of H_3, N_1, N_{4a}
Fallibility and failures H_{21}, N_{20}, N_{21}	Violence, short-term H_3
Goodness of human nature H_{14}	Withdrawal N_{11b}
Hard judgment N_{14}	

Notes

Chapter I: Gandhi's Experiments

1. [Editor's note: A source for this quote did not appear in the original edition of this work. The editor has been unable to find the correct source; however, a corroborating assessment of Gandhi's view on atheism appears in *Young India* 5.3.1925.]
2. My refusal to judge Gandhi's personal level of morality does not mean that I consider that level low. I am against such judgments for reasons best formulated by S. Kierkegaard in his *Concluding Unscientific Postscript* (1941).
3. Compare the two opposing trends in crowd psychology led, respectively, by Gustave Le Bon and F. H. Allport. Le Bon (1934; originally 1895) proposed that a crowd's conduct and psychology differ essentially from the individual's. Among his pupils, W. D. Scott (1907) stressed that a crowd has a high emotional level and lacks the feeling of responsibility, and E. O. Martin (1920) described the psychopathic character a crowd can display in giving vent to its repressed impulses to aggression and sadism. William McDougall (1920) and later psychologists have done something to correct this view, Le Bon's account being shown to apply only to spontaneously formed groups that have no firm inner organization. McDougall grants that groups may act recklessly and in a primitive and uncontrolled way, but that there are conditions under which they may also behave rationally and display considerable morale and unselfishness. In opposition to Le Bon's school, Allport (1924: 295) proposed that individuals in crowds acted as though they were alone, "only more so." Allport does not accept Le Bon's claim that a "crowd mind," with its own characteristics, is formed.
4. Accounts of this episode have been chronicled in many places (Tendulkar 1951, vol. 1: 146–48; Gandhi 1950: 325; Dhawan 1946: 201).
5. This, of course, is not to say that the amount of energy that an individual is actually able to put into realizing a moral principle is a direct measure of moral worth. A man of quite ordinary ability, placed in an environment that restricts his development, perhaps wasted by disease and with a number of undeserved disabilities, is not thereby prevented from reaching as great a level of

moral excellence as a man who is brilliantly endowed in every way. Very likely, however, the former individual will be far less effectual, and the actual energy of his attempt to comply with a moral principle may never be sufficient to give rise to any significant result (characters in Graham Greene's novels might be mentioned here). If we are not to confuse moral worth with greatness, with what Kierkegaard called "the world-historical," the weak must be put on an equal footing with the mighty.

Chapter II: The Metaphysics of *Satyāgraha*

1. See also D. Bonhoeffer's (1954) *Prisoner for God* and other writings referred to in John A. T. Robinson (1963). They make important reading for the many who find traditional religion and spirituality completely meaningless. A clear, but narrow criticism of Tillich's conceptualizations is found in A. Edward (1970).
2. See note 1, chapter 1.
3. Cf., for instance, Bonhoeffer's distinction between Gospel and Christianity in his *Prisoner for God* (1954).
4. From a speech of Gandhiji before a gathering of conscientious objectors in Villeneuve in Switzerland that appeared in Desai's *Letter from Europe*.
5. In order to understand the saying that nothing is, except God, one must take into account the usual distinction between "to be" and "to exist." God *is*; he does not *exist* in certain philosophical senses. Gandhi takes changelessness as a criterion of (real) being (*Young India* 11.10.1928: 340–41; quoted in Prabhu and Rao 1967: 47–48): "I do dimly perceive that whilst everything around me is ever-changing, ever-dying, there is underlying all that change a Living Power that is changeless, that holds all together, that creates, dissolves, and re-creates. That informing Power or Spirit is God. And since nothing else I see merely through the senses can or will persist, He alone is." Gandhi's terminology conforms in many places with the religious poem Bhagavad Gita as, for example, in 17.26–17.28 of that work:

(26) The word sat is employed in the sense of reality and goodness; and so also, O Pārtha (Arjuna), the word sat is used for praiseworthy action.

(27) Steadfastness in sacrifice, penance, and gift giving is also called sat, and so any action for such purposes is also called sat.

(28) Whatever offering or gift is made, whatever penance is performed, whatever rite is observed, without faith, it is called asat. O Pārtha (Arjuna); it is of no account hereafter or here.

Regarding this last saying, one is reminded of Kierkegaard's distinction between factual truth and "being in Truth." Whoever prays with inwardness and passion is in Truth even when factually or theologically wrong about the object of prayer, whereas whoever prays without this is in Falsity even if praying to the Christian God.

6. E.g.: “Whatever difficulties we encounter, whatever apparent reverses we sustain, we may not give up the quest for Truth which alone is, being God Himself” (Gandhi 1957: chap. 2). Here the ontological aspect is dominant, but the pragmatic is also present: doing the right things.
7. One must, I think, be permitted to assert that Gandhi often violated his own principles of freedom of conscience. As we have noted, his family life shows an authoritarian attitude with imposition of his own standards of conduct on his wife and sons. He admitted this himself. But the principles have a standing in Indian and other traditions that make Gandhi’s personal failures of little relevance.
8. Pyarelal is here perhaps slightly rhetorical. Gandhi rarely, but sometimes, uses harsh terms that seem to be intended to be applied to persons, not only to their actions. See the quotation from his autobiography (Gandhi 1948: 507): “. . . the planters engineered against me a poisonous agitation.” This occurrence is characteristically associated with a symptom of self-righteousness: “. . . my insistence on truth, even to the minutest detail. . . .”
9. Except for Gandhi himself, there is scarcely anyone who does not consider him a *karmayogin*. “Gandhiji was a Karmayogi par excellence” (Gandhi 1961, vol. 3: viii).
10. After outlining the virtues of the devotee and the selfless actor, he says (Desai 1946: 130): “We thus see that to be a real devotee is to realize oneself.”
11. On Gandhi’s relation to the Bhagavad Gita and the Advaita Vedānta, see Desai (1946), *passim*.
12. The last three lines of the quotation are taken from Vedānta-Sūtras, I, 3.19 (Badaraya 1962, vol. 34: 187).
13. We are here at the source of the distinction between *mahāyāna* and *hināyāna*, the two Buddhist movements, the latter asserting the possibility of individual salvation, the former denying it. Gandhi’s Hinduism is heavily influenced by Buddhism. Indeed, he seems simply to regard reformed Hinduism as embracing the teachings of Buddha.
14. The following quotations are all to be found in the collections of Prabhu and Rao (1967) and of Gandhi (1961) under “nonviolence” and related headings.
15. Concerning Islam, Gandhi says: “I would like to say that I claim to have studied the life of the Prophet and the Koran as a detached student of religions. And I have come to the conclusion that the teaching of the Koran is essentially in favour of nonviolence” (*Harijan* 13.7.1940: 193; quoted in Gandhi 1961, vol. 3: 349). Regarding the Muslim practice of nonviolence, Gandhi would refer to the formidable fighter for India’s freedom, and later against Pakistan’s dictatorship, Khan Abdul Ghaffar Kahn! The followers of the ancient Vedic religion are called Sanatanists.

16. Cf. “But it is impossible for us to realize perfect Truth . . .” (Gandhi 1961, vol. 2: 25), “. . . how is one to realize this Truth . . .,” “This freedom from all attachment is the realization of God as Truth” (Gandhi 1957: chap. 2), “Man’s ultimate aim is the realization of God” (quoted in Gandhi 1965: 250). Gandhi did not strive after two different things, Self-realization and the realization of God! The two must be thought of as identical in extension, if not in both extension and intension.
17. Cf. “The existence of the body is possible only by reason of the ego. The complete annihilation of the body is salvation (or self-realization). He who has completely destroyed the ‘ego’ becomes an embodiment of Truth. There is no harm in calling him even God” (Gandhi 1961, vol. 2: 15; *Harijan* 27.11.1949: 340). See also the second quotation in the previous note, and “These productions of man’s Art have their value only in so far as they help the soul onward towards self-realization” (Prabhu and Rao 1967: 55).
18. In this respect, Gandhi sides with *mahāyāna* Buddhism rather than *hināyāna*. The “degree of self-realization” can be equated with degree of freedom, power, “being in itself,” substantiality, and nearness to God in Spinoza’s *Ethics* (see Naess 1969).

Chapter III: Norms and Hypotheses of Gandhian Ethics and Strategy of Group Struggle

1. By *norm*, we mean in this chapter the same as “not completely instrumental norm.” Something recommended purely and completely as a means to something else is not characteristic of a norm in our terminology. And the goal or aim must itself have a “normative plus” component: it must itself be required to be realized—if not under any circumstances, at least under the circumstances in which the means are recommended.
2. Sometimes what Gandhi says, rather than what he does, has determined our systematization. Gandhi himself pointed out weaknesses, mistakes in his political activities, and errors in his campaigns and in his decisions, more generally. Then, too, we have ourselves certain doubts about his activities that are not aired by the Mahatma himself. An important instance: we do not think he contacted the Moslem League (with Jinnah as its leader) as energetically as his norms required. In such cases, our formulations adapt themselves to Gandhi’s sayings rather than to a historically adequate account of what he did.

Chapter IV: Nonviolence and the “New Violence”

1. For Gandhi’s views on exploitation as violence see, e.g., *Harijan* 1.9.1940: 271–72; quoted in Prabhu and Rao 1967: 264–66.
2. Absence of retaliation or even masochistic provocation of violence from the opponent is, of course, also taken to be the essence of nonviolence by people

who have nothing to do with Black Power. On receiving the Nobel Peace Prize, Martin Luther King, Jr. was addressed in the following words: “The name of Martin Luther King will live because of the way he conducted his fight. He has through this given life to the words that were spoken to mankind. If somebody hits your right cheek, turn also the other towards him. 5,000 Negroes followed this commandment in December 1955, and won” (from the translation of G. Jahn’s speech, 10.12.1964). Absence of retaliation goes against the norms of nonviolence. They require only absence of retaliation in kind, that is, absence of violence in retaliation, not absence of response — absence of communication with the opponent when he expects and waits for a response.

3. Black-owned “soul banks” are now [in 1969] fairly common in the United States. They “demonstrate that the Negro doesn’t want everything handed to him” (a black banker quoted in *Time* 23.2.1969). However, they also demonstrate a belief in reform rather than revolution.

Chapter V: Comparison with Certain Other Philosophies of Conflict

1. Personal communication from Ramachandra Prabhu. According to this source, the young Gandhi astonished his followers by his optimism and conservatism on this topic, whereas the old Gandhi astonished them by his radical rejection.
2. For a detailed, nonliteral interpretation of *Zarathustra*, see Messer (1922).
3. Tolstoy’s letter, with an introduction by Gandhi, appears in *Tolstoy and Gandhi* (Nag 1950: 86).
4. Other quotations are from this book or from the English translation, *The Future of Mankind* (Jaspers 1961). Just before he died (February 1969), Jaspers wrote a short article on Gandhi, published in *Unesco Courier* (October 1969: 26). It contains no essentially different formulations from the above works.
5. The quotation was not translated in the English edition, the original German follows: Max Weber fragt daher, “was für ein Mensch man sein muss, um seine Hand in die Speichen des Rades der Geschichte legen zu dürfen?” Und er erfährt es als “unermesslich erschütternd,” wenn ein Mensch, der die Verantwortung für die Folgen real und mit voller Seele empfindet, an irgendeinem Punkte sagt: Ich kann nicht anders, hier stehe ich. Denn diese Lage muss freilich für jeden von uns, der nicht innerlich tot ist, irgendwann eintreten können.

References

Books or articles appearing in the *Selected Works of Arne Naess* are identified by (SWAN XX) at the end of the entry, where XX refers to the pertinent volume number.

- Allport, Floyd H. 1924. *Social Psychology*. New York: Houghton.
- Badaraya. 1962. *The Vedānta-Sūtras*, vol. 1, translated by George Thibaut. New York: Dover.
- Bhagavadgita, The*. 1956. With English translation by S. Radhakrishnan. Bombay: Allen and Unwin.
- Bondurant, Joan V. 1958. *Conquest of Violence: The Gandhian Philosophy of Conflict*. Princeton, NJ: Princeton University Press.
- Bonhoeffer, Dietrich. 1954. *Prisoner for God: Letters and Papers from Prison*, edited by Eberhard Bethge and translated by Reginald H. Fuller. New York: Macmillan.
- Bose, Nirmal K. 1947. *Studies in Gandhism*, 2d ed. Calcutta: India Associated Publishing Co.
- . 1948, 1957. *Selections from Gandhi*. Ahmedabad: Navajivan.
- . 1953. *My Days with Gandhi*. Calcutta: Nishana.
- Datta, Dharendra M. 1953. *The Philosophy of Mahatma Gandhi*. Madison: University of Wisconsin Press.
- Davis, Harry R., and Robert C. Good, eds. 1960. *Reinhold Niebuhr on Politics*. New York: Scribner.
- Desai, Mahadev. 1946. *The Gospel of Selfless Action, or, the Gita According to Gandhi*. Ahmedabad: Navajivan.
- Dhawan, Gopi N. 1946. *The Political Philosophy of Mahatma Gandhi*. Bombay: Popular Book Depot (2d rev. ed., Ahmedabad: Navajivan, 1951).
- Diwakar, Ranganath R. 1946. *Satyāgraha: The Power of Truth*. Bombay: Hind Kitabs.

REFERENCES

- Edward, A. 1970. "Professor Tillich's confusions." In *Philosophy of Religion*, edited by Steven M. Cahn. New York: Harper and Row.
- Erikson, Erik H. 1969. *Gandhi's Truth on the Origins of Militant Nonviolence*. New York: Norton.
- Fanon, Frantz. 1966. *The Wretched of the Earth*, translated from the French by Constance Farrington with a preface by Jean-Paul Sartre. New York: Grove Press (London: Penguin).
- Fischer, Louis. 1943. *A Week with Gandhi*. London: Allen and Unwin.
- . 1950. *The Life of Mahatma Gandhi*. New York: Harper (London: Jonathan Cape, 1951). Abridged as *Gandhi: His Life and Message for the World*. New York: Signet Key Book (1954).
- Galtung, Johan. 1992. *The Way Is the Goal: Gandhi Today*. Ahmedabad: Gujarat Vidyatith.
- Gandhi, Mahatma. 1930. *Mahatma Gandhi: His Own Story*, edited by Charles F. Andrews. London: Allen and Unwin.
- . 1941, 1945. *Constructive Programme: Its Meaning and Place*. Ahmedabad: Navajivan.
- . 1942, 1944. *Non-violence in Peace and War*, vol. 1. Ahmedabad: Navajivan.
- . 1948. *Gandhi's Autobiography: The Story of My Experiments with Truth*, translated by Mahadev Desai. Washington, D.C.: Public Affairs Press (Ahmedabad: Navajivan 1927–29).
- . 1949a. *Non-violence in Peace and War*, vol. 2. Ahmedabad: Navajivan.
- . 1949b. *For Pacifists*. Ahmedabad: Navajivan.
- . 1950. *Satyagraha in South Africa*, revised 2d ed., translated by Valji G. Desai. Ahmedabad: Navajivan.
- . 1951a. *Satyagraha: Non-violent Resistance*. Ahmedabad: Navajivan.
- . 1951b. *Selected Writings of Mahatma Gandhi*, compiled and with an introduction by Ronald Duncan. Boston: Beacon Press (London: Faber and Faber).
- . 1951c. *Towards Non-violent Socialism*, edited by Bharatan Kumarappa. Ahmedabad: Navajivan.
- . 1957. *From Yeravda Mandir: Ashram Observances*, translated by Valji G. Desai. Ahmedabad: Navajivan.
- . 1958–84. *The Collected Works of Mahatma Gandhi (1884–1948)*, 90 vols. New Delhi: Publications Division of the Ministry of Information and Broadcasting.
- . 1959. *Ashram Observances in Action*, translated by Valji G. Desai. Ahmedabad: Navajivan.

REFERENCES

- . 1960. *My Non-violence*, compiled and edited by Sailesh Kumar Bandopadhyaya. Ahmedabad: Navajivan.
- . 1961. *In Search of the Supreme*, 3 vols., edited by V. B. Kher. Ahmedabad: Navajivan.
- . 1965. *Glorious Thoughts of Gandhi*, compiled by N. B. Sen. New Delhi: New Book Society of India.
- . 1968. *A Thought for the Day*, compiled and translated by Anand T. Hingorani. New Delhi: Publications Division of the Ministry of Information and Broadcasting.
- Guru, Nataraja, trans. 1961. *The Bhagavadgita*. Bombay and New York: Asia Publication House.
- Harijan*. Weekly paper, started 11.2.1933. Published in Poona, later in Ahmedabad. Edited chiefly by Gandhi. An important source, but difficult to obtain.
- Hingorani, A. T., ed. 1968. *A Thought for the Day*. New Delhi: Ministry of Education.
- Hind Swaraj* or Indian Home Rule. 1958. Edited by Mahatma Gandhi. Ahmedabad: Navajivan.
- Hygen, Johan. 1954. *Albert Schweitzers tanker om kulturen*. Oslo: Forlaget Land og Kirke.
- Jaspers, Karl. 1958. *Die Atombombe und die Zukunft des Menschen*. München: Piper. Translated as *The Future of Mankind* by E. B. Ashton. Chicago: University of Chicago Press (1961).
- . 1969. "One of Karl Jaspers' last commentaries: Gandhiji." *Unesco Courier*.
- Kabir, H., ed. 1953. *Gandbian Outlook and Techniques*. New Delhi: Ministry of Education.
- Khosla, Gopal D. 1963. *The Murder of the Mahatma*. London: Chatto and Windus.
- King, Martin Luther, Jr. 1967. *Where Do We Go from Here: Chaos or Community?* New York: Harper and Row.
- Klitgaard, Robert E. 1971. "Gandhi's non-violence as a tactic." *Journal of Peace Research* 2: 143.
- Le Bon, Gustave, and F. H. Allport. 1934 (originally 1895). *Psychologie des Foules*. Paris: F. Alcan. Translated as *The Crowd*. New York: Viking (1960).
- Majumdar, S. K. 1966. *Jinnah and Gandhi*. Calcutta: Mukhapadhyay.
- Malcolm X. 1965. *The Autobiography of Malcolm X*, with the assistance of Alex Haley. New York: Grove Press.
- Martin, Everett O. 1920. *The Behavior of Crowds*. New York: Harper and Brothers.

REFERENCES

- Mascaró, Juan, trans. 1962. *The Bhagavad Gita*. Baltimore: Penguin Books.
- Mashruwala, Kishorlal G. 1951. *Gandhi and Marx*. Ahmedabad: Navajivan.
- McDougall, William. 1920. *The Group Mind*. Cambridge: The University Press.
- Messer, August. 1922. *Erläuterungen zu Nietzsches Zarathustra*. Stuttgart: Strecker und Schroder.
- Monier-Williams, Monier. 1970. *A Sanskrit-English Dictionary*, new ed. Oxford: Clarendon Press. Naess used this work to assess the meaning of words of Sanskrit origin used by Gandhi.
- Mühlmann, Wilhelm E. 1950. *Mahatma Gandhi. Der Mann, sein Werk und seine Wirkung*. Tübingen: J. C. B. Mohr.
- Naess, Arne. 1969. "Freedom, emotion and self-subsistence." *Inquiry* 12 (enlarged edition, Oslo: Universitetsforlaget, 1975 [SWAN VI]).
- . 1965. *Gandhi and the Nuclear Age*. Totowa, NJ: The Bedminster Press.
- Nag, Kalidas. 1950. *Tolstoy and Gandhi*. Patna: Pustak Bhandar.
- Nicolas, Marius P. 1938. *From Nietzsche Down to Hitler*. London: W. Hodge and Company.
- Nygren, Anders. 1942. "Luther och staten." *Svensk Tidskrift*.
- Organ, Troy W. 1964. *The Self in Indian Philosophy*. The Hague: Mouton.
- Paullin, Theodore. 1944. *Introduction to Non-Violence*. Philadelphia: The Pacifist Research Bureau.
- Prabhu, Ramachandra K., and U. R. Rao, eds. 1967. *The Mind of Mahatma Gandhi*, 2d ed., revised and enlarged. Ahmedabad: Navajivan.
- Pyarelal, N. 1932. *The Epic Fast*. Ahmedabad: Navajivan.
- . 1956–58. *Mahatma Gandhi: The Last Phase*, 2 vols. Ahmedabad: Navajivan.
- Robinson, John A. T. 1963. *Honest to God*. London: SCM Press (Philadelphia: Westminster Press).
- Rolland, Romain. 1924. *Mahatma Gandhi: The Man Who Became One with the Universal Being*. New York and London: Century.
- Scott, Walter D. 1907. *The Psychology of Public Speaking*. Philadelphia: Pearson Bros.
- Sharp, Gene. 1960. *Gandhi Wields the Weapon of Moral Power*. Ahmedabad: Navajivan.
- Shcherbaskoi, Fedor I. 1965. *The Conception of Buddhist Nirvana*. The Hague: Mouton.
- Shridharani, Krishnalal. 1962. *War Without Violence*. Bombay: Bharatiya Vidya Bhavan.

REFERENCES

- Tendulkar, Dinanath G. 1951–54. *Mahatma: Life of Mohandas Karamchand Gandhi*, 8 vols. Bombay: Publications Division of the Ministry of Information with Jhaveri and Tendulkar.
- Tillich, Paul. 1948. *The Shaking of the Foundations*. New York: Scribner's Sons.
- Young India*. English weekly journal edited by Gandhi from 8.10.1919 to February 1932 in Ahmedabad. An important source, but difficult to obtain (republished in 13 vols., Ahmedabad: Navajivan, 1981).
- Zaehner, R. C. 1969. *The Bhagavad Gita*, with commentary based on the original sources. London: Oxford University Press.
- Zimmer, Heinrich. 1961. *Philosophies of India*, edited by Joseph Campbell. Cleveland: World Publishing.

Other Works

- Bose, Nirmal K. 1957. *Selections from Gandhi*, 2d ed. Ahmedabad: Navajivan.
- Carmichael, Stokely, and Charles V. Hamilton. 1967. *Black Power: The Politics of Liberation in America*. New York: Random House.
- Förster-Nietzsche, Elizabeth. 1912–15. *The life of Nietzsche*, 2 vols., translated by Anthony M. Ludovici. New York: Sturgis and Walton.
- Kierkegaard, Søren. 1941. *Concluding Unscientific Postscript to Philosophical Fragments*, translated by W. Lowrie. Princeton: Princeton University Press.
- Luther, Martin. 1527. *Ob Kriegsleute auch in seligem Stande sein können* (Whether the soldier can be considered a Christian). Nurnberg: Jobst Gutknecht.
- Nietzsche, Friedrich. 1910–11. *Human All-Too-Human: A Book for Free Spirits*, 2 vols., translated by Helen Zimmern (vol. 1) and Paul V. Cohn (vol. 2). Edinburgh and London: T. N. Foulis.
- . 1960. *Also sprach Zarathustra*. Stuttgart: A. Kroner.
- Reyburn, Hugh A. 1948. *Nietzsche: The Story of a Human Philosopher*, in collaboration with H. E. Hinderks and J. G. Taylor. London: Macmillan.
- Roos, Carl. 1940. *Nietzsche und das Labyrinth*. Copenhagen: Gyldendal.
- Roy, Kshitish, ed. 1949. *Gandhi Memorial Peace Number*. Santiniketar: Prabhatkumar Mukhopadhyaya.

Index

- action
 - direct actions, 84, 107
 - norms of Gandhian ethics and, 56–57, 59, 84, 116–18
 - selfless, 33–34, 37, 38, 167n8
 - self-respect created by, 115
- Advaita Vedānta, 34, 167n10, 167n11
- abimsā*, 38–44
 - in Bhagavad Gita, 31, 38
 - compromise and, 82–83
 - in conceptual reconstruction, 42–43, 47
 - conversion of opponent and, 36, 78
 - toward criminals, 36, 73
 - degrees of, 40–42, 61, 93
 - Gandhi's striving for, 36
 - secrecy and, 75–76
 - self-realization and, 47, 61
 - Truth and, 20, 45–46, 47
 - See also* nonviolence
- Ahlberg, A., 139
- Allport, Floyd H., 165n3
- amānitva*, 32
- Andrews, Charles F., 149
- antagonisms, not antagonists
 - Gandhi's view, 22, 66–67, 72–73, 129, 141–42
 - in Marxism, 107
 - in New Violence, 100, 129
 - Tolstoy's view, 141
- aparigraha*, 36
- atheism, 2, 16, 17, 165n1
- Ātman*, 34–35
- ātman*, 32
- autonomy, 57, 65–66, 135
- axiological approach, 121–22
- Badaraya, 167n11
- being, 19, 166n4, 167n5, 168n17
- Bhagavad Gita
 - acognitive inspiration from, 17
 - abimsā* in, 31, 38
 - Gandhi's enemies and, 26–27, 81
 - Gandhi's relation to, 26, 167n10
 - on humility, 31–32
 - on sacrifice, 51, 80, 166n4
 - sat* in, 166n4
 - self-realization and, 28, 29, 32, 46
 - on truth, 22–23
- bias
 - vs. *Einfühlung* toward opponent, 81
 - in presenting case, 68, 74–75, 82, 104
- Black Power, 111–12, 113, 114, 115, 116, 168n2
- Bondaref, T. M., 51
- Bondurant, Joan V., 89–90, 91, 117, 118, 128
- Bonhoeffer, Dietrich, 166n1, 166n2
- Bose, Nirmal K., 74, 83, 110, 128
- Bradley, F. H., 49
- brahmacharya*
 - as celibacy, 36
 - as mental discipline, 105
- Brabman*, 34
- Buddha, 2, 63
- Buddhism, 30, 167n12, 168n17
- campaigns vs. movements, 84
- Carmichael, Stokely, 98, 123
- caste system, 134, 169n1
 - untouchables, 67, 84, 86, 91, 123
- celibacy, 36
- center of conflict, seeking, 59, 101, 107, 150
- change of objective, 80, 83–84
 - in salt campaign, 128
- Christianity
 - Bonhoeffer on, 166n2
 - Gandhi and, 2, 44
 - Kierkegaard and, 139, 166n4
 - Luther on, 132, 134, 136–37
 - Nietzsche and, 139

INDEX

- Christianity (*continued*)
 nonviolence and, 44, 137–38
 Schweitzer on, 136
- civil disobedience
 constructive programs and, 62, 85–86
 Himalayan miscalculation and, 25
 during World War II, 88
- coercion
 fasting as, 78–79, 91–92, 147, 148–49
 in imperfect *satyāgraha*, 91–92, 101
 norm about, 78–79
 vs. persuasion, 78, 89–92, 149–50
 as violence, 53, 79, 97, 106
- colonialism, 97
 Fanon on, 98–99, 100–101, 103–04, 114–15
See also India
- common goals, 66, 68, 72
- common interests, 67, 74, 100–101, 129
- compromise
 on nonessentials, 70, 72, 79, 82–83, 143
 rejection of
 by “new violence,” 97
 by Tolstoy, 143
 in student revolt, 105
- conscience
 plurality of, 21–22, 23, 27, 74, 167n6
See also inner voice
- Constructive Programme*, 86
- constructive programs, 85–87, 123–25
 New Violence and, 115–16, 123, 129, 169n3
 norms and hypotheses about, 62–63, 66–67, 72–73
- conversion of opponent, 72, 78, 79–80
 vs. coercion, 91
 vs. surrender, 88
- convincibility of opponent, 66, 70–71, 72, 136
 denied in fanonized struggle, 105
- cooperation, 68, 72, 74
 Tolstoy vs. Gandhi on, 141, 143
- courage, 40, 44, 71, 110–12
 of violent people, 143–44
See also fearlessness
- cowardice, 40, 44, 111–12, 121–22, 144
- criminals, 36, 73, 76, 77, 138
- crowd psychology. *See* mass psychology
- Davis, Harry R., 138
- decentralization, lxviii, 36, 92, 109
- democratic leadership, 69
- democratic societies, lxvii, 90, 92
- deontological approach, 121–22
- Desai, Mahadev, 28, 46, 54, 166n3, 167n9, 167n10
- destruction. *See* property, destruction of
- detachment, 29–30, 37, 44, 79
- devotion, 29–30, 80, 167n9
- Dhawan, Gopi N., 82, 90, 92, 165n4
- direct actions
 within campaigns, 84
 radicalizing effect of, 107
- distortion. *See* bias, in presenting case
- Diwakar, Ranganath R., 86
- domination. *See* exploitation
- duties vs. rights, 7
- E*, 54–57, 89
See also ethics of group struggle; hypotheses; norms
- **E* (metaphysical systematization), 48–51, 61, 89, 92
*H*₂ and, 56
*N*₁ and, 57, 58, 64–65
- ecology movement, lxviii, 41–42
- economics
 moral values and, 20
 structural violence and, 106
- Edward, A., 166n1
- egotism, 30–31, 32–33, 34, 35, 37–38, 168n16
 Nietzsche vs. Gandhi on, 140–41
- Einfühlung* (empathy), 79, 81
- Einstein, Albert, 1
- empathy (*Einfühlung*), 79, 81
- ends and means. *See* means and ends
- enemy. *See* opponent
- epoché* (suspension of judgment), 26
- Erasmus, Luther condemned by, 134
- Erikson, Erik H., 14, 115
- essentials
 clarification of, 69–70, 77
 in common with opponent, 74
 compromise on nonessentials, 70, 72, 79, 82–83, 143
- ethics of group struggle
abimsā as designation for, 39
 humility in, 32
 systematizations of
 aims of system, 42–43, 94–95
 deontological character, 121–22
 general ethics and, 5–6, 55
 graphical presentation, 48–51
 limits of application, 12–13
 logical status, 63–64

INDEX

- metaphysical (*E), 48–51, 56, 57, 58, 61, 64–65, 89, 92
- moral judgments and, 135
- positive character of, 53, 55–56
- primary sources, 53–54, 55, 168n2
- pyramidal structure, 56–58
- satyāgraha* conforming to, 92–95, 116–19, 128
- scope, 54–55
- terminology, 46–47, 53, 168n1
- See also* hypotheses; norms
- euthanasia, 41
- evil
 - Gandhi's views, 53, 81–82
 - vs. Luther's, 134
 - vs. Tolstoy's, 143
 - Luther's views, 131–33, 134
 - New Violence and, 98, 99
- experiments with nonviolence, 6–11, 58, 165n4
- explicitness, 53, 77
- exploitation
 - exploiter as evil, 98
 - exploiter harmed by, 64
 - of opponent, 78
 - of opponent's weakness, 83, 87–89
 - selfless action for the exploited, 38
 - as violence, 42, 47, 53, 64, 106, 129, 168n1
 - structural, 47, 97–98, 106, 122
- *F, 48, 50
- fallibility
 - Gandhi on, 10, 21–27
 - his own fallibility, 1, 2–4, 24–25, 28
 - humility and, 31
 - nonviolence and, 21, 25–26, 46, 152
 - in systematizations of ethics, 50, 79, 82
- Fanon, Frantz
 - on colonialism, 98–99, 100–101, 103–04, 114–15
 - on journalists, 102
 - utilitarianism of, 56, 103–04
- fanonization, 99, 105
- fasting, 4, 78–79, 91–92, 147, 148–49
- fearlessness, 44, 78, 110–12, 121–22
- Nietzsche and, 141
- See also* courage
- Fischer, Louis, 24, 82, 128
- forgiveness, 24
- Förster-Nietzsche, Elizabeth, 139
- freedom
 - self-realization and, 168n17
 - svarāj* (swaraj) as, 62, 86
- game theory, 119
- Gandhi, Mahatma
 - alternative philosophies and
 - Jaspers, 144–52, 169n4
 - Luther, 131, 134–36, 137, 138
 - Nietzsche, 138–41
 - Tolstoy, 141–44, 169n3
 - asceticism of, 4
 - assassination, 18, 27, 81
 - attempted assassination, 81, 144
 - caste system and, 134, 169n1
 - untouchables, 67, 84, 86, 91, 123
 - chronology of life, 153–55
 - democracy envisioned by, 90, 92
 - essential aspect of teachings, 5–7
 - ethics of group struggle
 - ahimsā* as designation for, 39
 - humility in, 32
 - systematizations of, 5–6, 12–13, 42–43, 46–95, 116–19, 121–22, 128, 135, 168n1, 168n2
 - experiments with nonviolence, 6–11, 58, 165n4
 - on fallibility, 10, 21–27
 - his own, 1, 2–4, 24–25, 28
 - family life, 1–2, 167n6
 - glorification by supporters, 2–4
 - Hindu opposition to, 16, 27, 81, 144
 - influence on masses, 108, 113
 - as *karmayogin*, 28–29, 34, 59, 142, 167n8
 - metaphysics of, 15–51, 166n3, 166n4, 167n5, 167n9, 167n13, 167n14, 168n15, 168n16, 168n17
 - moral character of, 1–5, 9–10, 165n2
 - self-righteousness, 167n7
 - striving for virtues, 36
- New Violence vs.
 - constructive programs, 115–16, 123–28
 - ethical norms, 99–105
 - metaphysical concepts, 98–99
 - revolutionary character, 97–98, 107
 - satyāgraha* misunderstood, 117
 - self-respect and, 108–16
 - similarities, 106–08, 168n1
 - summary, 128–29
- pragmatism of, 11–14, 16, 29
 - about Truth, 20, 103, 167n5
- psychological motivations of, 14

INDEX

- Gandhi, Mahatma (*continued*)
 religious beliefs of, 2, 15–19, 134, 165n1, 167n10, 167n12
 as revolutionary, 76, 97–98, 107, 134
 sense of humor, 11
 violence justified by, 25–26, 71, 111, 112–13, 119–22, 150
- Gandhi, Manilal (son), 126
- Gewalt*, 145–46, 147, 149
- Ghenghis Khan, 63
- goals
 change in, 80, 83–84
 in salt campaign, 128
 common, 66, 68, 72
 constructive programs and, 85
 destructive, 55–56
 explicitness about, 77
- God
 Gandhi's concept, 15–19
 atheism and, 2, 16, 17, 165n1
 being and, 166n4, 167n5
 Self and, 34–35
 self-realization and, 27–28, 32, 35, 46–47, 61, 168n15, 168n16
 in systematization of ethics, 49
 Truth and, 18–19, 26, 27–28
 Luther's concept, 131–34
 Spinoza's concept, 19, 168n17
 Tillich's concept, 15–16
- Godse, Nathuram, 27
- Goebbels, Joseph, 104
- Good, Robert C., 138
- goondas*, 73, 76, 77
See also criminals
- "Gora" (G. Ramachandra Rao), 16
- Greene, Graham, 165n5
- group struggle. *See* ethics of group struggle
- Guru, Nataraja, 32
- Hamilton, Charles V., 98, 123
- Harijan*, 54, 123
- Hegel, Georg, 64
- Himalayan miscalculation, 4, 25
- himsā*, 38–43
 in conceptual reconstruction, 47
 German translations of, 149
See also violence
- Hinduism
 Advaita Vedānta, 34, 167n10, 167n11
 Gandhi as traitor to, 16, 27, 81, 144
 Gandhi's beliefs, 2, 15, 17, 18
 Buddhism and, 2, 167n12
 on purification of Hinduism, 134
 Muslims vs. Hindus, 62, 64, 67, 120
 Tolstoy on, 142
See also Bhagavad Gita
- Hitler, Adolf, 11, 63, 70, 71, 144, 150
- Hobbes, Thomas, 54
- Hume, David, 13
- humiliation
 by opponent, 112–13
 of opponent, 55, 59, 68, 74, 101
- humility, 30–33
- Hygen, Johan, 136
- hypotheses
 descriptive character of, 13–14, 49
 empirical character of, 58
 exceptions to, 93
 fourth-level, 79–80
 Gandhi's psychology and, 14
 key expressions in, 163
 levels of, defined, 57
 of metaphysical systematization, 48–51, 56, 58, 65
 New Violence and, 99–105
satyāgraha conforming to, 12–13, 116–19
 second-level, 59–63, 66
 selection of, 55–57, 168n2
 survey of, 157–61
 third-level, 66–72
See also ethics of group struggle
- imperfection. *See* fallibility; mistakes
- imprisonment, institution of
 Gandhi rejects, 135, 143
 Tolstoy rejects, 142
- India
 crisis of 1947, 21
 Gandhi's influence on masses, 108, 113
 independence
 campaigns during World War II, 24, 88–89, 107
 constructive programs and, 62, 87
 Jaspers on, 145, 146–47, 148–49
 readiness of masses for, 108
 for sake of British also, 64
 Khadi movement, 108–09, 123
 politicians and Gandhi, 108, 120
 religious conflicts, 62, 64, 67, 84, 120
 salt campaign, 72–73, 84, 87, 109–10, 124–28
- injury
 to opponent, 25

INDEX

- vs. violence, 93–94
- inner voice
 - militant nonviolence and, 98
 - truth and, 20, 22, 23
 - See also* conscience
- Islam
 - Gandhi and, 2, 44, 167n14
 - Hindus vs. Muslims, 62, 64, 67, 120
- Jahn, G., 169n2
- Jaspers, Karl, 144–52, 169n4
- Jesus, 2
- Jinnah, 77–78, 81, 155, 168n2
- jīva*, 34
- journalists, 102
- Kahn, Abdul Ghaffar, 103, 167n14
- Kant, Immanuel, 13
- karmayogin*, 28–29, 34, 59, 142, 167n8
- Khadi movement, 108–09, 123
- Kierkegaard, Søren, 23, 139, 165n2, 165n5, 166n4
- killing, justification of
 - by Fanon, 99, 115
 - Gandhian ethics and, 57, 71
 - Indian moral tradition and, 6
 - by Jaspers, 147–48
 - by Luther, 133
 - See also* war
- King, Martin Luther, Jr.
 - patience and, 107
 - retaliation and, 168n2
 - self-respect and, 110, 111, 113, 114, 115
 - violence and, 116, 117
- Klitgaard, Robert E., 119
- Koestler, Arthur, 109
- Le Bon, Gustave, 165n3
- Lenin, 2, 143
- living together, 67, 73
- love
 - abhimāsa*, 82
 - God as, 18
 - justice and, 133–34, 135
 - Luther on, 133–34
 - nonviolence as, 61
 - Tolstoy on, 142–43
 - violence motivated by, 144
- Luther, Martin, 98, 131–38
- mahātman*, 4
- Majumdar, S. K., 77
- Malcolm X, 98, 114
- Mao Tse-tung, 124
- Martin, Everett O., 165n3
- Marx, Karl, 64
- Marxism, lxviii, 107, 109
- Mascaró, Juan, 31
- mass psychology, 6, 9, 165n3
- McDougall, William, 165n3
- means and ends, 59–61
 - in New Violence, 99
 - norms are not means, 168n1
 - satyāgraha* is not a means, 116
- meliorism, 136
- Messer, August, 169n2
- metaphysical concepts
 - of Gandhi, 15–51, 166n3, 166n4, 167n5, 167n9, 167n13, 167n14, 168n15, 168n16, 168n17
 - of New Violence, 98–99
 - See also* God; oneness of life; self-realization; Truth
- metaphysical systematization (*E), 48–51, 61, 89, 92
 - H_2 and, 56
 - N_1 and, 57, 58, 64–65
- Miller (journalist), 126, 127
- misrepresentation. *See* bias
- mistakes, 79, 82
 - See also* fallibility
- mistrust, 71
- misunderstanding opponent, 71, 79
- Mohammed, 2
- mokṣa*, 28
- moralism vs. pragmatism, 11–14
- moral systems. *See* ethics of group struggle
- moral worth
 - vs. greatness, 165n5
 - perfectibility of, 136
- movements vs. campaigns, 84
- Mühlmann, Wilhelm E., 149
- mukti*, 28
- Mussolini, Benito, 63
- Nag, Kalidas, 142, 143, 169n3
- Naidu, Sarojini, 126, 127
- Napoleon, 138
- Nehru, Jawaharlal, 3
- New Violence
 - defined, 97, 98
 - vs. Gandhian nonviolence
 - constructive programs, 115–16, 123–28
 - ethical norms, 99–105

INDEX

- New Violence (*continued*)
 metaphysical concepts, 98–99
 revolutionary character, 97–98, 107
satyāgraha misunderstood, 117
 self-respect and, 108–16
 similarities, 106–08, 168n1
 summary, 128–29
- Nicolas, Marius P., 139
- Niebuhr, Reinhold, 137–38
- Nietzsche, Friedrich, 54, 138–41
- nirvāṇa*, 30
- nonviolence
 antagonisms and, 72
 Christianity and, 44, 137–38
 constructive programs in, 62–63, 86
 defined, 53
 in democratic ideal, 90, 92
 effectiveness of, 5–11, 12
 experiments with, 6–11, 58, 165n4
 fallibility as argument for, 21, 25–26, 46, 152
 fasting in, 148–49
 fundamental norm of, 57–59, 63, 64–65, 93–94
 Hinduism and, 44
 in Bhagavad Gita, 31, 38
 human nature and, 6
 as instrumental value, 12, 65
 Islam and, 44, 167n14
 Jaspers on, 144–52
 in New Violence, as goal, 99–100
 oneness of life and, 26, 35–37, 47, 48, 49, 50, 57
 in philosophical traditions, 6
 powerlessness and, 150
 reinforces itself, 100
 self-respect and, 110, 115
 strategy and tactics, 13, 53
 Truth and, 44–46
See also abhimsā; ethics of group struggle;
satyāgraha; violence
- norms
 for campaigns vs. movements, 84
 deontological, 121–22
 vs. descriptive assumptions, 5–6, 13–14, 49
 empirical character of, 58
 first-level (N_1), 57–59, 63, 64–65, 93–94
 “Forgive!,” 24
 fourth-level, 80–84
 instrumental, 56–57, 168n1
 key expressions in, 163
 levels of, defined, 57
 of metaphysical systematization, 48–51, 57, 58, 64–65, 92
 New Violence and, 100, 102
satyāgraha conforming to, 12–13, 92–95, 116–19, 128
 second-level, 63–66, 85
 selection of, 55–57, 168n2
 specificity of, 56–57
 survey of, 157–61
 third-level, 72–79
 truth of, 20
 violations of, 92–95, 128
See also ethics of group struggle
- Nygren, Anders, 131–32
- oneness of life
 New Violence and, 98, 115
 nonviolence derived from, 26, 35–37
 in *E*, 57
 in **E* and **F*, 47, 48, 49, 50
- opponent
 common interests with, 74, 100–101, 129
 constructive intent and, 86–87
 conversion of, 72, 78, 79–80
 vs. coercion, 91
 vs. surrender, 88
 convincibility of, 66, 70–71, 72, 136
 denied in fanonized struggle, 105
Einfühlung with, 79, 81
 exploitation of, 78, 83, 87–89
 humiliation of, 55, 59, 68, 74, 101
 injury to, 25
 judging of, 78
 misrepresentation by, 82
 misunderstanding of, 71, 79
 personal contact with, 77–78, 127
 property of, destruction, 79, 80–81, 93, 100
 provocation of, 55, 59, 68, 74, 101
 vs. confrontation, 102
 exception to hypothesis, 93
 by property destruction, 79
 in salt raid, 127
 taken to be nonviolence, 168n2
 trust in, 71, 78
- Organ, Troy W., 34
- pacifism, 57, 107, 111
- panchayat* system, lxviii
- parallel institutions, 123–24, 129
- passive resistance, 83

INDEX

- passivity
 - being and, 19
 - vs. constructive programs, 62
 - vs. direct action, 107
 - powerlessness and, 150
- Paullin, Theodore, 90
- perfectibilism, 136
- personal contact with opponent, 77–78, 127
- Plato, 54
- pluralism, 21–24, 26, 27, 45, 74
 - Gandhi's personal failures with, 167n6
 - of Gandhi vs. Tolstoy, 141–42
 - rejected by New Violence, 99
- police
 - informing to, 76
 - violence by, 76, 101–02, 127
- positive struggle. *See* constructive programs
- power
 - Jaspers on, 144–47, 149
 - New Violence and, 99
 - nonviolence and, 150
 - self-realization and, 146, 168n17
- powerlessness, 108, 150
- Prabhu, Ramachandra K.
 - on caste system, 169n1
 - See also* Prabhu and Rao
- Prabhu and Rao, *The Mind of Mahatma Gandhi*, 1
 - asceticism, 4
 - bias, 82
 - capital and labor, 67, 68
 - compromise, 82–83
 - convincing opponent, 71, 78
 - cooperation, 72, 74
 - detachment, 30
 - economics, 20
 - exploitation, 64, 106, 168n1
 - fearlessness, 111
 - God, 26, 166n4
 - Hinduism, 16, 18
 - imperfections, 1, 3, 4
 - means and ends, 60
 - nonviolence, 167n13
 - oneness of life, 35, 36, 37
 - plurality of conscience, 21, 74
 - prayer and fasting, 78–79
 - sacrifice, 80, 83
 - self-realization, 168n16
 - truth, 23, 26
 - violent methods, 63
- pragmatism
 - of Fanon, 103
 - of Gandhi
 - about devotion, 29
 - about Truth, 20, 103, 167n5
 - vs. moralism, 11–14
 - See also* utilitarianism
- prayer, 78, 148
- preciseness, of *E and *F, 50
- pride, 30–33, 35
- propaganda, 104, 127
 - See also* bias
- property, destruction of, 79, 80–81, 93
 - innocent people's property, 69–70
 - New Violence and, 100
- provocation
 - by opponent, 112–13
 - of opponent, 55, 59, 68, 74, 101
 - vs. confrontation, 102
 - exception to hypothesis, 93
 - by property destruction, 79
 - in salt raid, 127
 - taken to be nonviolence, 168n2
- psychotherapy, reciprocity in, 37
- pūrṇa svarāj*, 62, 87
- Pyarelal, N., 1, 24, 35–36, 54, 63, 167n7
- Pyrrho, 26
- Radhakrishnan, S., 32
- Rao, G. Ramachandra ("Gora"), 16
- Rao, U. R. *See* Prabhu and Rao
- religion
 - conflicts in India, 62, 64, 67, 84, 120
 - Gandhi's beliefs, 2, 15–19, 134, 165n1, 167n10, 167n12
 - Truth and, 20
 - See also* Buddhism; Christianity; Hinduism; Islam
- revolution
 - Gandhi as revolutionary, 76, 97–98, 107, 134
 - violent, 97
- Reyburn, Hugh A., 139
- rights vs. duties, 7
- Robinson, John A. T., 166n1
- Rolland, Romain, 142
- Roos, Carl, 139
- Roy, Kshitish, 1
- sacrifice, 50–51, 80, 83, 85
 - Jaspers on, 147, 150
 - sat* and, 166n4
- Saheb, Imam, 126
- salt campaign, 72–73, 84, 87, 109–10, 124–28

INDEX

- saṃnyāsīn*, 4
 Sanatanists, 44, 167n14
 Sartre, Jean-Paul, 64, 98, 114, 115
sat, 19, 34, 166n4
satyāgraha
 benefits all, 64, 67
 change of goal in, 84, 128
 clarity about essentials in, 69–70
 coercion in, 78, 89–92, 147, 148–49
 compromise in, 82–83
 constructive programs in, 85–87, 123–25
 detachment and, 79
 effectiveness, vs. violence, 12
 exploitation of weakness in, 83, 87–89
 fallibility as argument for, 21
 injury to opponents in, 25
 means and ends in, 61, 116
 vs. New Violence, 98–105, 117, 128–29
 norms of, 55
 personal contact with opponent, 77–78
 sacrifice in, 83
 salt campaign, 72–73, 84, 87, 109–10, 124–28
 strictness of, 10, 61, 92–95
 techniques vs., 116–19
 translations of, 10, 146
 trust and, 76, 78
 See also ethics of group struggle; nonviolence
 scepticism, 20–21, 26
 Schweitzer, Albert, 3, 136
 Scott, Walter D., 165n3
 secrecy, 69, 75–76, 94, 102
 seek the center of conflict, 59, 101, 107, 150
 Self, 32, 33, 34–35
 universality of, 35–38
 self, 30–33, 34, 35
 selfless action, 33–34, 37, 38, 167n9
 Self-realization, 33, 35, 168n15
 self-realization
 courage and, 40, 110–11
 decrease or increase in, 47, 168n17
 devotion and, 167n9
 of exploiter is damaged, 64
 Gandhi's use of term, 46, 168n16
 God and, 27–28, 32, 35, 46–47, 61, 168n15
 humility and, 32
 limitation of, as violence, 53, 106
 in mundane sense, 33
 Nietzsche on, 140
 oneness of humanity and, 35–38, 39, 67
 power and, 146, 168n17
 selfless action and, 33–34, 37, 38
 self-respect and, 110, 112–13, 141
 svarāj as, 33
 in systematization of ethics, 46–49, 56, 57, 61, 65, 67
 Truth and, 27–28, 37–38, 46–47, 48–49, 168n15
 violence as means to, 99
 self-respect, 108–13, 129, 141
 violence as means to, 114–16
 semantics, in ethical formulations, 50–51
 Shcherbaskoi, Fedor I., 30
 sincerity, 79–80, 152
 Smuts, General Jan, 88
 Sorel, Georges, 138
 South Africa, 7–9, 10–11, 13, 88
 Spinoza, Benedictus de (Baruch)
 evil and, 82
 immanent God and, 19
 self-realization and, 168n17
 truth and, 151
 Stalin, Joseph, 63
 strategy of group struggle, 13, 53
 student revolt, 97, 101, 105, 119
 suffering, 36, 80, 83
 suspension of judgment (*epoché*), 26
svarāj (*swaraj*), 33, 76, 84, 86, 87, 108
 pūrṇa svarāj, 62, 87
 Systematization *E*, 54–57, 89
 See also ethics of group struggle; hypotheses;
 norms
 Systematization **E*, 48–51, 61, 89, 92
 *H*₂ and, 56
 *N*₁ and, 57, 58, 64–65
 Systematization **F*, 48, 50

 Tagore, Rabindranath, 109
tapas, 4
 Tendulkar, Dinanath G., 7, 39, 54, 81, 126, 128, 165n4
 Tillich, Paul, 15–16, 166n1
 Tolstoy, Leo, 51, 141–44, 169n3
 trust
 constructive work and, 67, 85, 86, 87
 informing to police and, 76
 in opponent, 71, 78
 sincerity and, 80
 threat of violence and, 151–52
 Truth
 abhimā and, 20, 44–46, 47
 being and, 19, 166n4, 167n5

INDEX

- fearlessness and, 111
- Gandhi's use of term, 17–21
- God and, 18–19, 26, 27–28
- pluralism about, 21–23, 26, 27, 45, 74
- Self as, 34
- self-realization and, 27–28, 37–38, 46–47, 48–49, 168n15, 168n16
- strict standard of, 93
- as top norm, 48–50
- vs. truth, 46–47
- truth
 - autonomy and, 65–66
 - in colonial situation, 103–04
 - compromise and, 83
 - experiments with, 9
 - Gandhi's use of term, 17–18, 19, 20
 - self-righteous, 167n7
 - humility about, 31
 - Jaspers on, 151
 - of norms, 20
 - pluralism about, 21–24, 26, 45, 141–42
 - scepticism about, 20–21, 26
 - self-realization and, 56
 - vs. Truth, 46–47
 - unbiased, 74–75, 82
- Tyabji, Abbas, 126
- understanding, 66, 72
 - empathy for opponent, 79, 81
 - of facts, 68, 74
 - misunderstanding opponent, 71, 79
 - by opponent, 70
 - working together and, 67, 85
- unity of humanity. *See* oneness of life
- untouchables, 67, 84, 86, 91, 123
- utilitarianism
 - experiments in nonviolence and, 10
 - of Fanon, 56, 103–04
 - minority interests and, lxvii
 - norms of Gandhian ethics and, 56, 57, 65
 - See also* pragmatism
- Vedānta, Advaita, 34, 167n10, 167n11
- violence
 - defined broadly, 42, 47, 53, 79, 168n1
 - is mutual, 64
 - by supporters of violence, 106, 129
- distortion of truth and, 69
- effectiveness vs. nonviolence, 5
- bimśā* as, 39–41, 47, 149
- impotency causing, 119–21
- Jaspers on, 144–52
- justification of
 - by Gandhi, 25–26, 71, 111, 112–13, 119–22, 150
 - in New Violence, 98–101, 105, 111–12, 114–16
- Luther on, 132, 133
- Nietzsche on, 138–39
- positive motivations for, 143–44
- self-respect and, 114–16
- short-term, 63, 100, 104, 129
- structural, 47, 67, 97–98, 105, 106, 111, 122
- in systematization of ethics
 - common goals and, 68
 - defined, 53
 - in *E, 48
 - essential points and, 69
 - humiliation and, 68
 - provocation and, 68
 - short-term, 63, 100
 - top norm *N*₁ and, 57–59, 63, 64–65, 93–94
 - understanding and, 70, 71
- threat of, 151–52
- Tolstoy on, 142
- violates pure *satyāgraha*, 61
- See also* killing; New Violence; nonviolence
- Wales, Prince of, 135
- war
 - Jaspers on, 150
 - long-term effects of, 63
 - Luther on, 137
 - Nietzsche on, 138–39, 140
 - See also* killing
- Weber, Max, 148, 169n5
- working together. *See* constructive programs
- yajña*, 80
- Young India*, 54, 123
- Zeteticism. *See* scepticism
- Zimmer, Heinrich, 34

Arne Naess was born in Slemdal, Norway, in 1912. One of Norway's foremost philosophers, known especially for his innovative eco-philosophy, Naess began his work with peace studies, global justice, and human rights, and continued with environmental matters. The subjects of his scholarly work and interests include empirical semantics, logic and foundations of science, communication theory and practice, Spinoza, scepticism, gestalt ontology, and normative systems theory. Naess's contributions have been honored by many awards, including Norway's Peer Gynt Award, Denmark's Sonning Prize, the Nordic Council Award for Nature and Environment, the Uggla Prize for Humanistic Studies from Stockholm University, and the Mahatma Gandhi Prize for Non-violent Peace.

Naess graduated from the University of Oslo in 1933, studied in Paris and Vienna, and became the youngest person appointed to a full professorship of philosophy at the University of Oslo, where he worked from 1939 to 1969. Since 1970, he has continued his work as a philosopher, naturalist, and environmental activist. He has been involved with the University of Oslo's Center for Development and the Environment since 1991. The Arne Naess Chair in Global Justice and the Environment is being established at the university to encourage scholars to engage creatively with Naess's work and ideas, in particular to promote new insights into environmental issues and the challenges posed by globalization, and to develop ideas that will help to humanize the difficult and conflict-laden transition to sustainability. Naess holds honorary doctorates from Stockholm University and The Norwegian National University of Sports and Physical Education. He is also an honorary member of The Norwegian Alpine Club and The Norwegian Tourist Association.

In addition to writing countless articles and essays that have been translated into several languages and have appeared in anthologies and journals throughout the world, Naess is the author of numerous books, including *Life's Philosophy: Reason and Feeling in a Deeper World* and *Ecology, Community and Lifestyle*. He was founder and editor of the journal *Inquiry*, and has lectured in many countries. As a mountaineer, Naess was the first to climb Tirich Mir in Pakistan. In the 1930s, he built a hut on Hallingskarvet Mountain in Norway, where he spent much time reflecting upon and relating to the surroundings and native plants of his retreat. His respect and appreciation for diversity, wonderment, and our relationship to

the natural world has continued throughout his life and is reflected in the spirit of his work.

Naess currently lives in Oslo with his wife, Kit-Fai.

Harold Glasser, Ph.D. is Associate Professor of Environmental Studies at Western Michigan University in Kalamazoo, Michigan. He has been a visiting Senior Fulbright scholar at the Center for Development and Environment and Department of Philosophy, University of Oslo; a Resource Person for the United Nations University–Institute of Advanced Study; a visiting researcher at the International Institute for Applied Systems Analysis; and a lecturer at Schumacher College. He has written on environmental philosophy, policy, and planning, as well as green accounting, education for ecological sustainability, and campus sustainability assessment.

Alan R. Drengson, Ph.D. is Emeritus Professor of Philosophy at the University of Victoria, in Victoria BC Canada. He is a former Director of Environmental Studies and is currently an Adjunct Professor of Graduate Studies. He is the author of numerous articles, reviews, and books, as well as the editor of three anthologies and the founding editor of two journals, *The Trumpeter: Journal of Ecosophy* and *Ecoforestry*.

Designed by Tamotsu Yagi Design
Composed by Ralph Fowler and BookMatters in Garamond 3
Printed by Krips, Meppel on Cyclus Offset 90 gr/m2
Bound by Callenbach, Nijkerk in Elite and stamped with Colorit 922

Appendix I

Approximate Signification of Single-Letter Symbols

A	something else (<i>alius</i>)
C	conceive, understand (<i>concipere, intelligere</i>)
D	cause (<i>causa</i>)
E	existence, being (<i>existentia</i> and <i>esse</i>)
F	affect (<i>affectus</i>)
G	act (<i>agere</i>)
H	person, human being, man, we (<i>homo, nos</i>)
L	free (<i>liber</i>)
N	not . . . (<i>non</i>)
O	striving (<i>conatus</i>)
P	possibility, ability (<i>posse</i>), power (<i>potentia</i>)
R	require something in order to something
S	itself (<i>se</i>)

Appendix II

Approximate Meaning of Multiple-Letter Symbols

The following list does not contain all combinations of symbols used in the text, but all that might not be understood from inspection of Appendix I.

Acq(x)	x is in a state of self-satisfaction (<i>acquiescentia in se ipso</i>)
Ad	adequate (<i>adequatus</i>)
Ali(x)	x is in a state of alienation
Bon(xyz)	x is good for y in relation to z (<i>bonum</i>)
C(xy)	y is conceived through x , adequately or inadequately, totally or partially
CA(x)	x is conceived through something else
CS(x)	x is conceived through itself
D(xy)	x causes y , partially or totally
de	decrease
Dol(x)	x is in a state of pain
E(xy)	y is in x
EA(x)	x is in something else
EANO(x)	x strives against an increase in its level of being in something else
ENPC(x)	existence of x belongs to that without which x cannot be conceived
NPC(xy)	x belongs to that without which y cannot be conceived

APPENDIX II

ES(x)	x is in itself
ESO(x)	x strives to increase its level of being in itself
F(x)	x is in the state of emotion (<i>affectus</i>)
G(xy)	x is active in relation to y , adequately or inadequately, partly or totally
H(x)	x is a person (<i>homo</i>)
Hil(x)	x is in a state of cheerfulness (<i>hilaritas</i>)
Id(xy)	x is identical to y
in	increase
In	inadequate (<i>inadequatus</i>)
Inu(xyz)	x is not useful to y in relation to z
L(x)	x is free (<i>liber</i>), partially or totally, adequately or inadequately
Lae(x)	x is in a state of joy (<i>laetitia</i>)
Mal(xyz)	x is bad for y in relation to z (<i>malum</i>)
Mel(x)	x is in a state of melancholy (<i>melancholia</i>)
Mix(x)	x is in a state of mixed emotions
. . . NO(x)	x strives against an increase in its level of . . .
. . . O(x)	x strives to increase its level of . . .
P(xy)	x has adequate or inadequate, in part or total, power in relation to y
PCNE(x)	it is possible to conceive x as nonexistent
Per(xy)	x is perfect in relation to y
Pes(xy)	x preserves itself in relation to y
Rat(xy)	x acts rationally in relation to y
RC(x)	x requires another concept in order to be conceived

APPENDIX II

RC(xy)	concept x is required by y in order to exist
RE(x)	x requires something else in order to exist
RE(xy)	x is required by y in order to exist, y requires x in order to be
Refl(xy)	x reflects upon or contemplates y (<i>contemplari</i>)
Sre(xy)	x realizes itself in relation to y
Tit(x)	x is in a state of pleasurable excitement (<i>titillatio</i>)
Tri (x)	x is in a state of sorrow (<i>tristitia</i>)
Uti(xy)	x is useful to y
Vir(xy)	x acts virtuously in relation to y (<i>virtus</i>)

Appendix III

Basic Equivalences

SA ₂	ES ekv -RE	SB ₁₄	L ekv ES
SA ₃	EA ekv RE	SB ₁₆	L ekv CS
SA ₇	CS ekv -RE	SB ₁₈	L ekv -RE
SA ₈	CA ekv RE	SB ₁₉	L ekv -RC
SA ₁₁	ES ekv -RE	SC ₁₀	AdD(xx) \sim ENPC(x)
SA ₁₂	EA ekv RE	SC ₁₁	AdC(xx) \sim ENPC(x)
SA ₁₃	ES ekv CS	SC ₂₂	AdD(xx) \sim AdL(x)
SA ₁₄	EA ekv CA	SC ₂₃	AdC(xx) \sim AdL(x)
SA ₁₅	CS ekv -RE	SC ₂₄	InD(xx) \sim -ENPC(x)
SA ₁₈	RE ekv RC	SC ₂₇	InD(xx) \sim EA(x)
SB ₂	-PCNE ekv ENPC	SC ₃₄	AdG(xy) \sim AdD(xy)
SB ₃	PCNE ekv -ENPC	SC ₃₆	AdC(xy) \sim AdG(xy)
SB _{3a}	ENPC ekv CS	SC ₄₁	InG(xy) \sim InD(xy)
SB ₄	PCNE ekv CA	SC ₄₂	InG(xy) \sim InC(xy)
SB ₅	-PCNE ekv CS	SD ₄₆	$P_{<}(x) \sim$ PCNE(x)
SB ₆	PCNE ekv EA	SD ₄₇	$P_{<}(x) \sim$ EA _{<>(x)}
SB ₁₀	L ekv ENPC	SD ₄₈	$P(x) \sim$ ES _{<>(x)}
SB ₁₂	L ekv -PCNE	SD ₅₁	$P_{<}(x) \sim$ InD(xx)

APPENDIX III

SD59	$P_o(x) \sim EA(x)$	SF24	$Sre_{in}(x) \text{ ekv } ES_{in}(x)$
SD62	$P(xy) \sim G(xy)$	SF27	$Ali_{in}(x) \text{ ekv } EA_{in}(x)$
SD65	$P_{in}(x) \sim G_{in}(x)$	SF28	$Hil(x) \sim (y) P_{in}(xy)$
SD66	$P_{in}(x) \sim ES_{in}(x)$	SF37	$Tit(x) \sim InP_{in}(x)$
SD68	$P_{in}(x) \sim L_{in}(x)$	SF40	$Tri(x) \sim P_{de}(x)$
SE1a	$F(x) \sim P_{in}(x) \vee P_{de}(x)$	SF48	$Mel(x) \sim (y) P_{de}(xy)$
SE4	$AdF(x) \sim P_{in}(x)$	SF53	$Dol(x) \sim InP_{de}(x)$
SE10	$AdF(x) \sim ES_{in}(x)$	SG1	$Uti(xy) \sim D(x(Per_{in}(yz)))$
SE14	$AdF(x) \sim L_{in}(x)$	SG2	$Bon(xyz) \text{ Def } Uti(xyz)$
SF1	$Lae(x) \sim P_{in}(x)$	SH1	$Vir(x) \text{ ekv } P(x)$
SF7	$Per_{in}(x) \sim P_{in}(x)$	SH2	$Vir(xy) \sim CS(xy)$
SF12a	$Per_{in}(x) \sim ES_{in}(x)$	SH17	$Vir(x) \text{ ekv } Rat(x)$
SF17	$PesO(x) \sim ESO(x)$	SH24	$Rat_{in}(x) \sim L_{in}(x)$
SF20	$Pes_{in}(x) \sim P_{in}(x)$		

Notes

Introduction

1. [Editor's note: A mimeographed, fairly comprehensive survey containing about 4,000 relations was prepared by the Institute of Philosophy at the University of Oslo (Naess and Fløistad 1963–64; issue 1 was produced by Naess and Fløistad in 1963, issues 2 and 3 by Fløistad alone in 1964).]

Chapter I: The Fundamental Dual Distinction: “In Itself” and “In Something Else”

1. Occurrences of *quatenus* referring to God are found among other places in IP23Dem (*quatenus absolute consideratur*); IP28Dem (*quatenus aliquo modo affectum consideratur*—reference to God or an attribute); IP28Dem (*quatenus affectum est modificatione*); IP28Dem (*quatenus modificatum est modificatione quae finita est*); IP29Sch (*Deus quatenus ut causa libera consideratur*); IP32Dem (*quatenus substantia absolute infinita*); IIP9 (*quatenus alia rei singularis actu existentis idea affectus consideratur*); IIP9Dem (*quatenus alio cogitandi modo affectus consideratur*); and IIP12Dem (*quatenus naturam humanae Mentis constituit*). The use of *quatenus* is central to Spinoza's way of handling not only the general immanence of God, but also the participation of particular beings in the nature and essence of God.

Chapter III: Causation, Cognition, and Action

1. A detailed textual confrontation and test of a somewhat narrower hypothesis of parallelism with reference to different classes of *x*'s and *y*'s is given in Ragnar Naess (1969), an unpublished dissertation. Its largely positive conclusion has strengthened my confidence in my general hypothesis of parallelism stated above.
2. A set of different criteria of inadequate cognition is discussed in Naess and Wetlesen (1967: 11).
3. The complex families of terms connected with *percipere*, *concupere*, and *intelligere*, as well as the other terms of cognition, are surveyed and discussed in

the second part of Naess and Wetlesen (1967); see especially pp. 143, 156, and 188.

4. For systematic analysis of evidence, see R. Naess (1969). C1 and C2 together are designed to do justice to reconstruction Nos. 5 and 8, and C5 and C6 to Nos. 4 and 7 in Naess and Wetlesen (1967).
5. Concerning subclasses of causes, see Gueroult (1968: 245 ff.). Gueroult's work is outstanding in reliability and solidity. What I write I find in no case to be inconsistent with what he writes—but our goals are far apart. My goal is to help make Spinoza's work accessible to modern readers, not help them to work with Spinoza's own, enormously complex terminology.
6. For a discussion of Spinoza's finite God see Naess (1981 [in SWAN IX]).
7. Four references concerning immanence include:

Carl Gebhardt, "Der Zentralgedanke, aus dem heraus Spinoza die überkommenen Begriffe umgestaltet, ist der Gedanke der Immanenz" (1922: xvii).

Wilhelm Windelband: "God is Nature as the universal world-essence, he is the *natura naturans*; as sum-total of the individual things in which this essence exists modified, he is the *natura naturata*. If in this connection the *natura naturans* is called occasionally also the efficient cause of things, this creative force must not be thought as something distinct from its workings: this cause exists nowhere but in its workings" (Windelband 1926: 409). God *exists* modified, that is, as modes, particular things, not as anything else.

Harry A. Wolfson: "Spinoza's statement that God is the immanent cause of all things is thus not an assertion that God is identical with the aggregate totality of things, it is only a denial that God is the external and separable and hence immaterial cause of all things" (1961, vol. 1: 324). Wolfson quotes the *Short Treatise*, which says that the immanent cause is that in which "the effect remains united with its cause in such a way that together they constitute a whole" (Sec. Dial. §3). As regards "whole," Wolfson takes it in a strong sense suggested by Aristotle (Met. 5, 1023b, 27–33). "A whole means . . . that which so contains the things it contains that they form a unity."

Evelyn Underhill (1930: 99 ff.) treats immanence from a point of view not completely foreign to Jewish philosophy. "'He is not far from any one of us, for in Him we live and move and have our being,' is the pure doctrine of Immanence: a doctrine whose teachers are drawn from amongst the souls which react more easily to the touch of the Divine than to the sense of alienation and of sin, and are naturally inclined to love rather than to awe." Spinoza was such a soul. We may put it this way: substance *is* but does not *exist* independently of modes. Accordingly, ES(*x*) reads, when we wish to be careful, "*x* is in itself," not "*x exists* in itself."

Chapter IV: Grading Basic Distinctions

1. The principle of grading of freedom is accepted by some Spinoza specialists, for instance Wolf (1966: 451) and Wetlesen (1969).
2. One of the reasons we avoid the term *mode* (*modus*) is that Spinoza lets affects such as *amor* be modes (IIA3). We need a notion of ‘particular thing’ that avoids properties. Affects are primarily properties. States of joy are properties of living beings, not particular beings “inside” the living ones.

Chapter VI: Joy

1. A few more quotations will show the context in which Gandhi uses the term *self-realization*: “What I want to achieve . . . is self-realization, to see God face to face, to attain *moksha*.” For *God* one may here substitute *truth*, as Gandhi holds Truth to be God. *Moksha* (*mokṣa*) is total, not partial freedom and not completely realizable for any human being. “Life is an aspiration. Its mission is to strive after perfection, which is self-realization. . . . The silent cry daily goes out to Truth to help me . . .” (*Young India* 11.8.1927; quoted in Prabhu and Rao 1967: 46). It is the opinion of Gandhi that self-realization is the highest aim according to the great religions—Hinduism, Buddhism, Christianity, and Islam (cf. the discussion in *Young India* 6.8.1941; quoted in Prabhu and Rao 1967: 76). The religious atmosphere of Gandhi is of course very different from that of Spinoza; Gandhi is no philosopher. But the source of their beliefs is not very different.

Chapter VII: Good and Bad and Usefulness

1. See Giancotti Boscherini (1970–71) regarding the lexical articles *bonum*, *bonus*, *malum*, and *malus*. A preliminary survey of occurrences and interpretations is found in Naess and Wetlesen (1967: 381 ff.).

References

Books or articles appearing in the *Selected Works of Arne Naess* are identified by (SWAN XX) at the end of the entry, where XX refers to the pertinent volume number.

Gebhardt, Carl, trans. and ed. 1922. *Kurze Abhandlung von Gott, dem Menschen und seinem Glück* (Spinoza's Short Treatise on God, Man, and Human Welfare). Leipzig: Meiner.

Giancotti Boscherini, Emilia. 1970–71. *Lexicon Spinozanum*. 2 vols. The Hague: Nijhoff.

Gueroult, Martial. 1968. *Spinoza*, vol. 1. Paris: Aubier-Montaigne.

Naess, Arne. 1973. "The shallow and the deep, long-range ecology movement." *Inquiry* 16: 95–100. (in SWAN X)

———. 1981. "Spinoza's finite god." *Revue Internationale de Philosophie* 135: 120–26. (in SWAN IX)

Naess, Arne, and Guttorm Fløistad. 1963–64. *Spinoza's Etikk. Systematiske rekonstruksjoner*, 3 issues. Oslo: Institute of Philosophy, University of Oslo.

Naess, Arne, and Jon Wetlesen. 1967. *Conation and Cognition in Spinoza's Theory of Affects*. Oslo: Institute of Philosophy, University of Oslo.

Naess, Ragnar H. 1969. *Noen undersøkelser omkring forholdet mellom erkjennelse og kausalitet i Spinoza's filosofi*, Ph.D. diss. Oslo: University of Oslo.

Prabhu, R. K., and U. R. Rao, eds. 1967. *The Mind of Mahatma Gandhi*, with foreword by Vinoba Bhave and S. Radhakrishnan. Ahmedabad: Navajivan.

Saw, Ruth L. 1969. "Personal identity in Spinoza." *Inquiry* 12: 1–14.

Underhill, E. 1930. *Mysticism: A Study in the Nature and Development of Man's Spiritual Consciousness*. London: Methuen.

Wetlesen, Jon. 1969. "Basic concepts in Spinoza's social psychology." *Inquiry* 12: 105–32.

REFERENCES

- Windelband, Wilhelm. 1926. *A History of Philosophy*, translated by James H. Tufts. New York: Macmillan.
- Wolf, A., trans. and ed. 1966. *The Correspondence of Spinoza*. New York: Russell and Russell.
- Wolfson, Harry A. 1961. *The Philosophy of Spinoza*, vol. 1. New York: Meridian.

Index

- acquiescentia in se ipso* (self-satisfaction), 125–30
- active emotion, 83–86, 87, 88–91
 - activeness and, 37, 88, 90
 - adequate causation and, 41, 84, 90
 - of animals, 129
 - being in oneself and, 84, 89, 97
 - freedom and, 41, 83–84, 86, 90–91
 - the good and, 115
 - power increase and, 83, 84, 86, 88, 95
 - symbol for, 87
 - understanding and, 84, 97
 - See also* emotions (affects)
- activeness, 37–39, 46–48, 50–51
 - active emotion and, 37, 88, 90
 - causation and, 37–39, 40, 46–48, 62
 - cheerfulness and, 105
 - of every particular thing, 50–51
 - freedom and, 37
 - of God, 51
 - of the good, 116
 - increase or decrease in, 80, 81
 - melancholy and, 109
 - partial, 39, 48
 - perfection and, 98
 - in personal relations, 38, 40
 - power and, 63, 64, 80, 125, 126
 - self-satisfaction and, 125–26
 - striving for, 101
 - symbols for, 42
 - understanding and, 2, 32, 37–38, 46, 47–48, 64
 - See also* passivity
- active power (*agendi potentia*), 63, 125, 126
- adequate, symbol for, 41
- adequate causation
 - active emotion and, 41, 84, 90
 - activeness and, 37–39, 40, 46–48, 62
 - conception and, 31–36, 40, 43–44, 61
 - by every particular thing, 50, 116
 - existence and, 36, 44
 - freedom and, 45, 46
 - by God, 35, 39, 41
 - the good and, 115
 - by human beings, 35, 38–39, 40–41, 51, 62
 - of itself, 45, 46, 62, 78
 - power and, 63, 78, 80, 127
 - self-satisfaction and, 125–26, 127
 - of something else, 46–48, 80
 - See also* causation
- adequate conception
 - causation and, 31–36, 40, 41, 43–44, 61
 - by every particular thing, 51
 - freedom and, 45, 62
 - grading of, 55–56, 64
 - by human beings, 40
 - part/whole terminology and, 110–11
 - self-satisfaction and, 125–26
 - through itself, 45
 - See also* conception (cognition, understanding)
- adequate ideas, 40, 41
- adequate power, 80, 127–28
- affects. *See* emotions (affects)
- affectus*, 84, 87
- agendi potentia* (active power), 63, 125, 126
- agere*, 37
- alienation, 104
- alius*
 - symbol for, 14
 - See also* in something else (*in alio*)
- amor intellectualis Dei*, 84, 86
- animals, 129–30
 - See also* living beings
- animism, 92–93, 96
- Aristotle
 - Spinoza's ontology and, 27
 - “whole” defined by, 140n7
- ātman*, Gandhi on, 103

INDEX

- ataraxia*, 84
- attributes, 2, 4, 6
 - extension and thought as, 15–16, 59
 - particular things and, 17
- aut*, 17, 19
- bad (*malum*), 113, 114–15, 116, 117, 141n1
- being (*esse*)
 - vs. existence, 9, 10, 23–24, 59, 63, 71, 140n7
 - symbol for, 14
 - See also* existence; particular beings
- being in itself. *See* in itself (*in se*)
- being in something else. *See* in something else (*in alio*)
- body
 - joy and, 95, 104
 - self-satisfaction and, 128
- bonum*. *See* good (*bonum*)
- Cartesian dualism, 129
- causation
 - activeness and, 37–39, 40, 46–48, 62
 - being in something else and, 17, 46
 - cognition and, 31–36, 42–44, 139n1
 - by human beings, 2, 38, 40, 41, 61, 62
 - essence and, 38–39, 125
 - existence and, 36, 44, 45–46
 - freedom and, 45, 46
 - by God, 35, 39, 41, 50, 63, 116, 140n7
 - the good and, 114–17
 - grading of, 68, 72, 100
 - power and, 63, 78, 80, 127
 - subclasses of causes, 35, 140n5
 - symbols for, 42
 - usefulness and, 113–14, 116–17
 - See also* adequate causation; inadequate (partial) causation
- cause of itself (*causa sui*)
 - adequate/inadequate, 45, 46, 62, 78
 - existence and, 25, 36, 44–45, 46
 - grading of, 72
 - joy and, 97
 - power and, 63
 - striving for, 101
 - understanding and, 36
- cheerfulness (*bilaritas*), 86, 104–06
 - the good and, 116
 - melancholia* and, 107
 - rationality and, 122
 - reflection and, 128
 - virtue and, 121, 122
- children, 41
- cognition. *See* conception (cognition, understanding)
- cognitive-causal parallelism. *See* causation, cognition and
- conatus*. *See* striving (*conatus*)
- conceived as nonexistent, 23, 24–29
 - adequate conception and, 45, 46
 - being in something else and, 77
 - grading of, 60, 61, 77
 - person as, 39, 49
 - power and, 77
 - striving and, 91
 - through existing things, 11
- conceived through itself, 1–5
 - adequately, 45
 - attributes as, 15
 - basic theorems about, 10–13, 18
 - causation and, 36, 44
 - cheerfulness and, 105
 - existence and, 23–24, 26, 44–45, 46
 - freedom and, 27, 45, 46, 54, 62
 - the good and, 116
 - grading of, 55–56, 58, 61, 62, 64
 - survey using symbols, 71–74, 77
 - melancholy and, 109
 - pain and, 111
 - power and, 78
 - striving for, 85, 91
 - substance as, 65
 - symbol for, 14, 15
 - virtue and, 119, 120
 - See also* conception (cognition, understanding); fundamental dual distinction; in itself (*in se*)
- conceived through something else, 1–5
 - activeness and, 38, 47–48, 51
 - basic theorems about, 10–14, 18
 - causation and, 31, 33–35, 38, 42–44, 139n1
 - existence and, 23, 26
 - freedom and, 27
 - grading of, 61, 62, 71–74, 78, 100
 - human beings as, 39, 49, 62
 - power and, 80
 - striving and, 91
 - symbols for, 15, 42
 - through God, 16, 26
 - See also* conception (cognition, understanding); fundamental dual distinction; in

INDEX

- something else (*in alio*); require something in order to be/be conceived
- conception (cognition, understanding)
 - activeness and, 2, 32, 37–38, 46, 47–48, 64
 - causation and, 31–36, 42–44, 139n1
 - by human beings, 2, 38, 40, 41, 61, 62
 - emotion and, 84, 86, 87, 97
 - existence and, 23, 24–26, 44–46, 60, 77
 - grading of, 55–56, 57, 64
 - by nonhuman beings, 85, 93
 - power and, 64
 - striving for, 85
 - of substance, 11–12, 23
 - symbols for, 42
 - terminology for, 34, 139n3
 - See also* adequate conception; conceived as nonexistent; conceived through itself; conceived through something else; ideas; inadequate (partial) conception; knowledge
- concupere*, 2, 14, 34, 139n3
- contemplation, 126–28
- context
 - in grading predicates, 55
 - as third variable, 42–43
- decrease. *See* graded predicates, increase or decrease in
- deep ecology, 38
 - See also* ecology
- degrees, 55, 67
 - See also* graded predicates
- Democritus, 98
- Descartes, René, 59, 129
- dolor* (pain), 107, 108, 109–10, 111
- dual distinction. *See* fundamental dual distinction
- dualism, Cartesian, 129
- ecology
 - causation by humans and, 38
 - deep ecology, 38
 - equalitarianism and, 130
 - self-preservation and, 102
 - worldview and, 76
- ekv. *See* extensional equivalence
- emotions (affects)
 - of animals, 129
 - classes of, 85–86
 - cognition (understanding) and, 84, 86, 87, 97
 - defined by Spinoza, 84
 - freedom and, 41, 83–84, 86, 90–91
 - mixed states of, 86, 106, 108
 - modes and, 16, 140n2
 - power and, 62, 81, 83–84, 86, 87–90, 95
 - rationality and, 122
 - Spinoza's positive attitude toward, 6
 - symbol for state of, 87
 - virtue and, 121
 - See also* active emotion; joy (*laetitia*); love; pain (*dolor*); passive emotion; sorrow (*tristitia*)
- ens rationis*
 - freedom and, 64–65
 - God as, 59
 - bilaritas* and, 105
 - sensation as, 98
 - See also* reason (rationality)
- epistemology
 - in human situation, 97
 - lambanological-ontological parallelism, 1–5, 9, 10–11, 12, 13–14, 17–18
 - See also* conception (cognition, understanding); knowledge
- equivalences, 3, 6
 - table of, 137–38
 - See also* extensional equivalence
- esse*. *See* being (*esse*)
- essence
 - causation and, 38–39, 125
 - defined by Spinoza, 25–26
 - of every being, 100
 - existence and, 2, 25–26, 36, 65, 129
 - of God, 40, 50, 140n7
 - of substance, 65
- Ethics*
 - centrality of IP36, 50
 - hidden structures of, 27
 - reference format, xvii
 - terminological relations in, 1–7, 139n1
- Euclid, 24
- existence, 23–29
 - vs. being, 9, 10, 23–24, 59, 63, 71, 140n7
 - causation and, 25, 36, 44, 45–46
 - conception and, 23, 24–26, 44–46, 60, 77
 - essence and, 2, 25–26, 36, 65, 129
 - freedom and, 26–29, 61–62
 - of God, 25, 59, 128
 - of human beings, 49
 - of particular things, 59
 - power and, 63

INDEX

- existence (*continued*)
 - survey of, 24–28
 - using symbols, 28–29
 - See also* being (*esse*); conceived as nonexistent; require something in order to be/be conceived
- existential quantification, 19
- ex parte*, 32, 35
 - See also* part/whole distinction
- extension, as attribute, 15–16, 59
- extensional equivalence, 5–6, 7, 17
 - See also* equivalences
- Fløistad, Guttorm, 139n1
- formalization, 5
 - See also* symbolization
- freedom
 - active emotion and, 41, 83–84, 86, 90–91
 - activeness and, 37
 - of all particular things, 116
 - being in itself and, 27, 54, 64–65, 76
 - causation and, 45, 46
 - cheerfulness and, 105
 - of children, 41
 - conceiving and
 - adequate, 45, 62
 - through itself, 27, 45, 46, 54, 62
 - through something else, 27
 - existence and, 26–29, 61–62
 - fundamental dual distinction and, 6
 - Gandhi on, 141n1
 - of God, 77
 - the good and, 116
 - grading of, 53–55, 61–62, 63, 64–65, 140n1
 - increase, 80
 - partial increase or decrease, 81, 107
 - survey using symbols, 67, 68, 76–77, 81, 107
 - total, 49, 62, 76–77, 100
 - zero level, 100
 - joy and, 96, 107
 - pain and, 111
 - perfection and, 100
 - of a person, 49, 62, 76
 - Gandhi on, 141n1
 - pleasurable excitement and, 107
 - power and, 63, 79, 80
 - reason and, 53, 64–65, 122–24
 - reflection and, 128
 - self-preservation and, 101, 102
 - self-satisfaction and, 127
 - sorrow and, 108
 - striving and, 84, 85, 92, 101
 - virtue and, 54, 120
- free (*liber*)
 - Spinoza's usage, 26, 27, 123
 - symbol for, 28
- free will, 84
- fundamental dual distinction, 1–4, 5, 6
 - existence and, 24
 - survey of, 9–14
 - using symbols, 14–21
 - See also* in itself (*in se*); in something else (*in alio*)
- Gandhi, Mahatma, 103, 141n1
- Gebhardt, Carl, 140n7
- Gestalt psychology, 98
- Giancotti Boscherini, Emilia, 141n1
- God
 - adequate conception of, 40
 - in Cartesian dualism, 129
 - causation by, 35, 39, 41, 50, 63, 116, 140n7
 - “conceived through” relation and, 16, 26, 100
 - emotions and, 90
 - essence of, 40, 50
 - existence of, 25, 59, 128
 - as expendable term, 3–4, 56
 - as finite, 140n6
 - freedom of, 77
 - fundamental dual distinction and, 10
 - Gandhi on, 103, 141n1
 - graded predicates and, 58–59, 68, 77
 - immanence of, 130, 140n7
 - activeness and, 51
 - causation and, 50, 63, 116, 140n7
 - dependence of God and, 41, 59
 - personal identity and, 86
 - power and, 63
 - quatenus* terminology and, 16, 56, 66, 139n1
 - “in something else” relation and, 13, 15–17
 - love for, 56, 84, 86
 - as maximum concept, 120
 - modes and, 16–17, 41, 51, 59, 140n7
 - nature of, 128
 - power of, 63, 64, 90
 - virtue of, 120
 - See also* substance
- good (*bonum*), 113, 114–17, 141n1
 - virtue and, 121

INDEX

- graded predicates, 53–81
 - vs. absolutist dichotomies, 49, 54–55, 58, 66
 - “cause of,” 68, 72, 100
 - “conceived adequately,” 55–56, 57, 64
 - “conceived as nonexistent,” 60, 61, 77
 - “conceived through itself,” 55–56, 58, 61, 62, 64
 - survey using symbols, 71–74, 77
 - “conceived through something else,” 61, 62, 100
 - survey using symbols, 71–74, 78
 - defined, 55
 - dimensions of, 55–57, 64
 - freedom as, 53–55, 61–62, 63, 64–65, 140n1
 - increase, 80
 - partial increase or decrease, 81, 107
 - survey using symbols, 67, 68, 76–77, 81, 107
 - total, 49, 62, 76–77, 100
 - zero level, 100
 - increase or decrease in, 64, 68
 - in every relation, 88
 - partial, 81, 110
 - striving for, 87
 - infinite level, 67, 68, 100
 - “in itself,” 56, 57–62, 63–65, 66, 67–68, 69–71
 - freedom and, 64–65, 76, 77
 - partial increase or decrease, 81
 - power and, 63–64, 78, 79, 80
 - zero level, 100
 - “in something else,” 58, 61, 62, 69, 70–71
 - decrease, 80
 - power and, 77, 78, 79, 80
 - symbols for, 66, 67
 - justification of, 6, 58–60
 - knowledge as, 57
 - perfection as, 53, 57, 95, 99, 100
 - power as, 54, 62–64, 68, 77–78, 79–81
 - increase in every relation, 88
 - increase or decrease, 68
 - infinite level, 78, 79, 90
 - partial increase or decrease, 81, 89
 - zero level, 97, 100
 - reason as, 55
 - “require something in order to be,” 58, 61, 74–76
 - self-preservation as, 56–57
 - self-satisfaction as, 127
 - substantiality as, 59–60, 65, 97
 - symbols for, 65–68, 81
 - three levels of, 54, 67–68
 - zero level, 67, 100
 - See also* predicates
- Gueroult, Martial, 140n5
- Hegel, Georg Wilhelm Friedrich, 38, 86
- bilaritas*. *See* cheerfulness (*bilaritas*)
- Hobbes, Thomas, 81
- human being (person)
- activeness of, 51
 - adequate causation by, 35, 38–39, 40–41, 51, 62
 - adequate conception by, 40
 - vs. animal, 129
 - child, 41
 - conceivability of something through, 64
 - conceived as nonexistent, 39, 49
 - conceived through himself, 62, 72, 85
 - conceived through something else, 39, 49, 62
 - existence of, 49
 - freedom of, 49, 62, 76
 - Gandhi on, 141n1
 - God and, 40, 68
 - in itself, partially, 41, 58, 62, 69, 79, 85, 86
 - personal identity of, 40, 86–87
 - power of, 39, 79, 96, 97
 - requirements to exist or be conceived, 49
 - situation of, Spinoza’s synthesis, 97
 - in society vs. alone, 53, 123
 - in something else, 39–41, 48, 62
 - striving by, 84–85, 91–92
 - to be joyous, 96
 - to increase perfection, 101
 - to increase virtue, 121
 - toward being in itself, 85, 86
 - symbol for, 41, 42
 - See also* particular beings; particular things
- Hume, David, 86
- humility, 125
- Husserl, Edmund, 12
- idealism, 42
- ideas
- adequate, 40, 41
 - of animals, 129–30
 - clear and distinct
 - part/whole terminology and, 110–11
 - of substance, 12
 - confused, 40, 129
 - emotions as, 129

INDEX

- ideas (*continued*)
 - inadequate, 110, 111
 - See also* conception (cognition, understanding); *ens rationis*
- inadequate, symbol for, 41
- inadequate ideas, 110, 111
- inadequate (partial) causation, 33, 35
 - activeness and, 39, 48
 - conception and, 43–44
 - emotion and, 84
 - existence and, 45–46
 - of itself, 45, 46, 78
 - power and, 78
- inadequate (partial) conception, 110–11
 - activeness and, 39, 48
 - causation and, 43–44
 - grading of, 55–56, 57
 - pain and, 111
 - of particular things, 32–33
- increase. *See* graded predicates, increase or decrease in
- indiget*, 14
- infinite being, 62–63
- infinite degree, 67, 68
- infinite perfection, 99
- infinite virtue, 120
- in itself (*in se*), 1–5
 - active emotion and, 84, 89, 97
 - adequately, 45
 - cheerfulness and, 105
 - conceived as nonexistent and, 26, 28
 - equivalences to, 6–7
 - not introduced, 128–29
 - freedom and, 27, 54, 64–65, 76
 - God as, 59
 - the good and, 115, 116
 - grading of, 56, 57–62, 63–65, 66, 67–68, 69–71
 - freedom and, 64–65, 76, 77
 - partial increase or decrease, 81
 - power and, 63–64, 78, 79, 80
 - zero level, 100
 - human being as, 41, 58, 62, 69, 79, 85, 86
 - joy and, 96
 - particular things as, 57–58, 69
 - perfection and, 99
 - personal identity and, 86
 - pleasurable excitement and, 106–07
 - power and, 63–64, 78, 79, 80
 - self-preservation and, 56–57, 101, 103
 - self-realization and, 103
 - sorrow and, 108
 - striving for, 84–85, 87, 91, 92, 101
 - substantiality and, 97
 - symbol for, 14, 19
 - See also* conceived through itself; fundamental dual distinction
- in something else (*in alio*), 1–5
 - alienation and, 104
 - causation and, 17, 46
 - conceivability as nonexistent and, 77
 - freedom and, 27
 - in God, 13, 15–17
 - grading of, 58, 61, 62, 69, 70–71
 - decrease, 80
 - power and, 77, 78, 79, 80
 - symbols for, 66, 67
 - human beings as, 39–41, 48, 62
 - striving against, 87, 91
 - symbols for, 14, 15, 19, 42
 - two meanings of, 13, 15–16, 17
 - See also* conceived through something else; fundamental dual distinction
- intelligere*, 14, 34, 85, 139n3
 - See also* conception (cognition, understanding)
- “is”. *See* being (*esse*)
- joy (*laetitia*), 95–111
 - adverse effects of, 111
 - of animals, 129, 130
 - centrality in Spinoza’s vision, 95, 97
 - defined by Spinoza, 95
 - freedom and, 96, 107
 - the good and, 117
 - kinds of, 83, 104–07
 - love and, 125
 - as mode, 140n2
 - pain and, 109–10
 - perfection and, 57, 95, 97–98, 99, 106
 - power and, 95–96, 97, 106, 108, 110, 128
 - self-preservation and, 102, 108
 - self-satisfaction and, 125–26, 127, 128
 - sensation of, 98
 - sorrow and, 107, 108
 - virtue and, 121
 - See also* cheerfulness (*bilaritas*); pleasurable excitement (*titillatio*)
- knowledge, three kinds of
 - emotions and, 16
 - grading and, 57
 - particular things and, 58

INDEX

- second kind, as inadequate, 32
- third kind
 - fundamental dual distinction as, 19
 - increase in, 85
 - about particular beings, 87
- See also* conception (cognition, understanding); epistemology; ideas
- laetitia*. *See* joy (*laetitia*)
- lambanological-causal parallelism, 31
 - See also* causation, cognition and
- lambanological-ontological parallelism, 1–5, 9, 10–11, 12, 13–14, 17–18
- Leibniz, Gottfried Wilhelm, 59
- liber*. *See* freedom; free (*liber*)
- living beings
 - activeness of, 37
 - conceiving by, 85, 93
 - joy and, 96
 - knowledge of, 58
 - range of predicates and, 58, 129–30
 - striving of, 85
 - See also* human being (person); particular beings
- logical formalization, 5
 - modal logic and, 10, 42
 - See also* symbolization
- logical symbols, 17, 18
 - See also* symbols
- love
 - defined by Spinoza, 125
 - for God, 56, 84, 86
 - hate and, 110
 - immanence of God and, 140n7
 - of self, 113
 - Spinoza's inclination to, 140n7
- malum* (bad), 113, 114–15, 116, 117, 141n1
- man. *See* human being (person)
- Marx, Karl, 38
- material implication, 17
- melancholia*, 107, 109, 122
- mind
 - in animals, 129
 - God expressed in, 56
 - joy and, 95
 - self-satisfaction and, 128
 - See also* thought
- modal logic, 10, 42
- modes
 - emotions and, 16, 140n2
 - as expendable term, 3–4, 6, 140n2
 - God and, 16–17, 41, 51, 59, 140n7
 - particular things and, 17, 140n2
 - persons as, 48
 - properties as, 140n2
 - substance and, 41, 51, 140n7
- moksha*, self-realization and, 141n1
- motion, 15–16
- mutual implication
 - vs. extensional equivalence, 5–6
 - symbol for, 17
- Naess, Arne
 - on deep ecology, 38
 - on Spinoza's terminology
 - bonum* and *malum*, 141n1
 - about cognition, 139n3
 - survey of relations, 139n1
 - on Spinoza's view of cognition
 - adequate, 139n4
 - emotion and, 87
 - inadequate, 139n2
 - terminology, 139n3
- Naess, Ragnar, 139n1, 139n4
- Nature
 - absolute virtue of, 120
 - as expendable term, 4
 - God as, 140n7
 - reason and, 113
- nature
 - cognition and, 32, 33, 111
 - of God, 128
 - of a thing
 - existence and, 25, 26, 129
 - virtuous action and, 129
- necessity
 - freedom and, 26, 54
 - fundamental dual distinction and, 10
- negation
 - of predicates, 58, 66
 - symbol for, 17
- nonexistence. *See* conceived as nonexistent; existence
- ontological-lambanological parallelism, 1–5, 9, 10–11, 12, 13–14, 17–18
- ontology
 - Aristotelian, 27
 - equalitarian, 130
 - in human situation, 97
 - “or,” exclusive and inclusive, 17, 19

INDEX

- pain (*dolor*), 107, 108, 109–10, 111
- partial activeness, 39, 48
- partial causation. *See* inadequate (partial) causation
- partial conception. *See* inadequate (partial) conception
- partial decrease or increase, 81, 110
- particular beings
- essence of, 100
 - God and, 86, 139n1
 - perfection level of, 100–101
 - striving of, 92–93, 100–101
 - See also* living beings
- particular things
- activeness of, 37, 50–51
 - adequate causation by, 50, 116
 - adequate conception by, 51
 - cannot be God, 68
 - causal relations between, 31, 139n1
 - caused by human beings, 38–39
 - conceived by human beings, 64
 - essence of, 38–39
 - existence of, 59
 - freedom of, 116
 - God expressed through, 50–51, 56, 66, 116, 130, 140n7
 - human beings as, 39–41
 - inadequate conception of, 32–33
 - “in itself” applied to, 57–58, 69
 - “in something else” applied to, 17
 - modes and, 17, 140n2
 - power of, 63
 - striving of, 92–93
 - See also* human being (person); particular beings
- part/whole distinction, 32, 35, 110–11
- passion, 84, 87
- passive emotion, 39, 41, 84
- of animals, 129
 - power and, 89
 - symbol for state of, 87
 - See also* emotions (affects)
- passivity, 37, 39, 40
- inadequate cognition and, 32
 - striving to avoid, 85
 - symbol for, 42
 - See also* activeness
- pati*, 37
- percipere*, 34, 139n3
- perfection (*perfectio*), 97–101
- cheerfulness and, 106
 - Gandhi on, 141n1
 - grading of, 53, 57, 95
 - complete, 99, 100
 - zero level, 100
 - joy and, 57, 95, 97–98, 99, 106
 - kinds of, 83
 - Latin connotations of, 95, 98
 - power and, 95, 98, 99, 100
 - self-preservation and, 102
 - sorrow and, 108, 117
 - striving for, 85, 100–101, 141n1
 - usefulness and, 113–14
- person. *See* human being (person)
- personal identity, 40, 86–87
- pleasurable excitement (*titillatio*), 106–07
- pain and, 107, 109–10, 111
- posse*, 14, 63, 131
- possible to conceive as nonexistent. *See* conceived as nonexistent
- power (*potentia*)
- activeness and, 63, 64, 80, 125, 126
 - adequate, 80, 127–28
 - the bad and, 114–15
 - being in itself and, 63–64, 78, 79, 80
 - causation and, 63, 78, 80, 127
 - cheerfulness and, 104, 105
 - conceiving and, 64
 - emotions and, 62, 81, 83–84, 86, 87–90, 95
 - existence and, 63
 - freedom and, 63, 79, 80
 - of God, 63, 64, 90
 - grading of, 54, 62–64, 68, 77–78, 79–81
 - increase in every relation, 88
 - increase or decrease, 68
 - infinite level, 78, 79, 90
 - partial increase or decrease, 81, 89
 - zero level, 97, 100
 - of human being, 39, 79, 96, 97
 - joy and, 95–96, 97, 106, 108, 110, 128
 - kinds of, 83
 - melancholy and, 109
 - pain and, 109–10, 111
 - perfection and, 95, 98, 99, 100
 - self-preservation and, 85, 102
 - self-realization and, 103
 - self-satisfaction and, 125, 126
 - sorrow and, 107–08, 117
 - striving for, 85, 92, 101, 102
 - symbols for, 68, 131
 - usefulness and, 114
 - virtue and, 119, 120

INDEX

- Prabhu, R. K., 103
- predicates
- negation of, 58, 66
 - ranges of, 19–20, 58, 129–30
 - for usefulness, 116
 - symbols for, 5, 131
 - See also* graded predicates
- psychoanalysis, repression and, 105
- quantification, 19
- quatenus*, 16, 56–57, 66, 139n1
- ranges. *See* predicates, ranges of
- Rao, U. R., 103
- rationality. *See* reason (rationality)
- reality, perfection and, 57
- reason (rationality), 121–24
- freedom and, 53, 64–65, 122–24
 - grading of, 55
 - self-satisfaction and, 128
 - usefulness and, 113
 - virtue and, 55, 121–22, 124
 - See also ens rationis*
- reflection, 126–28
- relationism, 40, 41
- require something in order to be/be conceived, 1, 9, 11, 13–14
- freedom and, 27
 - grading of, 58, 61, 74–76
 - human being and, 49
 - inadequate conception and, 46
 - striving to reduce extent of, 91
 - symbol for, 14, 15, 20
 - See also* conceived through something else; in something else (*in alio*)
- res particularis*. *See* particular things
- Saw, Ruth, 40, 86
- se*
- symbol for, 14
 - See also* in itself (*in se*)
- Self, Gandhi on, 103
- self-preservation, 84–85, 92, 101–04
- cheerfulness and, 106
 - the good and, 115
 - grading of, 56–57
 - joy and, 102, 108
 - melancholy and, 109
 - rationality and, 124
 - sorrow and, 108
 - striving for, 101–02
 - usefulness and, 113, 115
 - virtue and, 120, 124
- self-realization, 102–03, 141n1
- self-satisfaction (*acquiescentia in se ipso*), 125–30
- sorrow (*tristitia*), 95, 97, 107–08, 110
- good or bad and, 111, 117
- Spinoza, Benedictus de (Baruch)
- animism of, 92–93, 96
 - Cartesian dualism and, 129
 - on cognitive-causal parallelism, 2, 31–35, 38, 40, 41, 61
 - deep ecology and, 38
 - finite God of, 140n6
 - on free will, 84
 - fundamental dual distinction and, 6, 10, 11, 12, 15, 49, 53
 - Gandhi and, 103, 141n1
 - on graded predicates, 6
 - freedom, 54–55, 65, 68, 77, 140n1
 - power, 64
 - self-satisfaction, 127
 - substantiality, 60
 - on human beings, 39, 40, 41
 - idealism and, 42
 - on immanent God, 130, 140n7
 - causation and, 50, 63, 116, 140n7
 - dependence of God and, 41, 59
 - personal identity and, 86
 - power and, 63
 - quatenus* and, 16, 56, 66, 139n1
 - optimism of, 97
 - on perfection, 100–101
 - joy and, 57, 83, 95, 97–98
 - self-preservation and, 85
 - sorrow and, 117
 - usefulness and, 114
 - ranges of predicates and, 19–20, 58, 129–30
 - on rationality, 53, 65, 122–23
 - reconstructions of his views, 1, 86–87, 124
 - terminology of, 1–7
 - about activeness, 37
 - affects as modes in, 140n2
 - about causes, 35, 140n5
 - about conception, 32, 34, 110–11
 - about emotions, 84, 95, 107
 - about existence, 19, 23–25, 59
 - bilaritas*, 86, 104, 105, 107
 - liber*, 26, 27, 123
 - perfectio*, 95, 98
 - potentia*, 62–63, 64, 95
 - quatenus*, 16, 56–57, 66, 139n1

INDEX

- Spinoza, Benedictus de (Baruch) (*continued*)
- terminology of (*continued*)
 - about self-preservation, 102
 - about self-satisfaction, 125
 - symbolization and, 18–21
 - tristitia*, 117
 - about usefulness, 114
 - vel*, 17, 19
 - about virtue, 119, 120
 - on three kinds of knowledge, 16, 19, 32, 57, 58, 85, 87
- Stoics
- self-preservation and, 102
 - Spinoza and, 84
- striving (*conatus*), 84–85, 87, 91–93
- for activeness, 101
 - to avoid passivity, 85
 - to avoid sorrow, 108
 - for being in itself, 84–85, 87, 91, 92, 101
 - to be joyous, 96–97
 - freedom and, 84, 85, 92, 101
 - Gandhi on, 141n1
 - for perfection, 85, 100–101, 141n1
 - for power, 85, 92, 101, 102
 - relations between goals and, 96–97
 - for self-preservation, 101–02
 - for virtue, 121
- substance
- as adequate cause, 35, 39, 41
 - conception of, 11–12, 23
 - emotions and, 90
 - as expendable term, 3–4, 6, 56, 128
 - God as, 59
 - gradation of, 59–60, 65, 97
 - modes and, 41, 51, 140n7
 - one and only one, 65
 - in particular beings, 86
 - virtue and, 120
 - See also* God
- Substance, absolute virtue of, 120
- substantiality, 59–60, 65, 97
- sunt*, 9, 19
- symbolization
- vs. formalization, 5
 - value of, 20–21, 45, 66
- symbols
- for fundamental dual distinction, 14–15
 - for graded predicates, 65–68, 81
 - heuristic use of, 5, 18–19, 21
 - logical, 17, 18
 - for striving, 87
 - tables of, 131, 133–35
- things. *See* particular things
- thought
- as attribute, 15, 16, 59
 - See also* ens rationis; ideas; mind
- titillatio*. *See* pleasurable excitement (*titillatio*)
- tristitia*. *See* sorrow (*tristitia*)
- truth
- Gandhi on, 103, 141n1
 - self-satisfaction and, 125
- Underhill, Evelyn, 140n7
- understanding. *See* conception (cognition, understanding)
- universal quantification, 19
- usefulness, 113–14, 115, 116
- virtue and, 113, 121
- vel*, 17, 19
- virtue, 119–22
- as acting according to one's nature, 129
 - freedom and, 54, 120
 - reason and, 55, 121–22, 124
 - self-satisfaction and, 128
 - striving for, 121
 - usefulness and, 113, 121
- Wetlesen, Jon, on Spinoza
- bonum* and *malum*, 141n1
 - cognition
 - adequate, 139n4
 - emotion and, 87
 - inadequate, 139n2
 - terms of, 139n3
 - freedom, grading of, 140n1
 - power, 62
- whole
- concept of, 59–60
 - part/whole distinction, 32, 35, 110–11
- will, 84
- Windelband, Wilhelm, 140n7
- Wolf, A., 140n1
- Wolfson, Harry A., 59, 140n7
- Wordsworth, William, 130
- worldview, 76

Arne Naess was born in Slemdal, Norway, in 1912. One of Norway's foremost philosophers, known especially for his innovative eco-philosophy, Naess began his work with peace studies, global justice, and human rights, and continued with environmental matters. The subjects of his scholarly work and interests include empirical semantics, logic and foundations of science, communication theory and practice, Spinoza, scepticism, gestalt ontology, and normative systems theory. Naess's contributions have been honored by many awards, including Norway's Peer Gynt Award, Denmark's Sonning Prize, the Nordic Council Award for Nature and Environment, the Uggla Prize for Humanistic Studies from Stockholm University, and the Mahatma Gandhi Prize for Non-violent Peace.

Naess graduated from the University of Oslo in 1933, studied in Paris and Vienna, and became the youngest person appointed to a full professorship of philosophy at the University of Oslo, where he worked from 1939 to 1969. Since 1970, he has continued his work as a philosopher, naturalist, and environmental activist. He has been involved with the University of Oslo's Center for Development and the Environment since 1991. The Arne Naess Chair in Global Justice and the Environment is being established at the university to encourage scholars to engage creatively with Naess's work and ideas, in particular to promote new insights into environmental issues and the challenges posed by globalization, and to develop ideas that will help to humanize the difficult and conflict-laden transition to sustainability. Naess holds honorary doctorates from Stockholm University and The Norwegian National University of Sports and Physical Education. He is also an honorary member of The Norwegian Alpine Club and The Norwegian Tourist Association.

In addition to writing countless articles and essays that have been translated into several languages and have appeared in anthologies and journals throughout the world, Naess is the author of numerous books, including *Life's Philosophy: Reason and Feeling in a Deeper World* and *Ecology, Community and Lifestyle*. He was founder and editor of the journal *Inquiry*, and has lectured in many countries. As a mountaineer, Naess was the first to climb Tirich Mir in Pakistan. In the 1930s, he built a hut on Hallingskarvet Mountain in Norway, where he spent much time reflecting upon and relating to the surroundings and native plants of his retreat. His respect and appreciation for diversity, wonderment, and our relationship to

the natural world has continued throughout his life and is reflected in the spirit of his work.

Naess currently lives in Oslo with his wife, Kit-Fai.

Harold Glasser, Ph.D. is Associate Professor of Environmental Studies at Western Michigan University in Kalamazoo, Michigan. He has been a visiting Senior Fulbright scholar at the Center for Development and Environment and Department of Philosophy, University of Oslo; a Resource Person for the United Nations University–Institute of Advanced Study; a visiting researcher at the International Institute for Applied Systems Analysis; and a lecturer at Schumacher College. He has written on environmental philosophy, policy, and planning, as well as green accounting, education for ecological sustainability, and campus sustainability assessment.

Alan R. Drengson, Ph.D. is Emeritus Professor of Philosophy at the University of Victoria, in Victoria BC Canada. He is a former Director of Environmental Studies and is currently an Adjunct Professor of Graduate Studies. He is the author of numerous articles, reviews, and books, as well as the editor of three anthologies and the founding editor of two journals, *The Trumpeter: Journal of Ecosophy* and *Ecoforestry*.

Designed by Tamotsu Yagi Design
Composed by Ralph Fowler and BookMatters in Garamond 3
Printed by Krips, Meppel on Cyclus Offset 90 gr/m2
Bound by Callenbach, Nijkerk in Elite and stamped with Colorit 922

References

- Bryce, James B. 1921. *Modern Democracies*. New York: Macmillan.
- James, William. 1974. *Essays in Pragmatism*. Edited and with an introduction by Alburey Castell. New York: Hafner Publishing (1907).
- Le Bon, Gustave. 1931. *Bases scientifiques d'une Philosophie de l'histoire*. Madrid: M. Aguilar.
- Nearing, Scott. 1945. *Democracy Is Not Enough*. New York: Island Workshop Press.
- Russell, Bertrand. 1917. *Mysticism and Logic*, 2d ed. London: G. Allen and Unwin.
- . 1948. *Human Knowledge: Its Scope and Limits*. New York: Simon and Schuster (London: G. Allen and Unwin, 1948, 1966).
- Sinding, Thomas. 1949. *Pengevesen og Konjunkturer*. (Finance and the State of the Market). Oslo: Grøndahl.
- Schjelderup, Harald Krabbe. 1957. *Innføring i Psykologi*. (Introduction to Psychology). Oslo: Gyldendal.
- Wisniewski, Bohdan. 1970. *Karneades, Fragmente, Text und Kommentar*. Wrocław: Zakład Narodowy Imienia Ossolinskich, Wydawnictwo Polskiej Akademii Nauk.

Index

- actions, reasons for, 76, 77, 78
- advertising, 52, 97, 108
- “A” entities, 4–5
- agreement and disagreement
 - pseudo-, 63–69
 - examples, 66–72, 73–74
 - real, 63, 64, 65, 66, 67, 68
 - verbal, 63–64, 65, 66, 67
- alleged implication, 102–05, 107
- alternation, 56
- ambiguity, 2, 5, 47, 100–102, 107, 108
- analytic conclusions, 61–62
- analytic statements, 37, 55–61
 - defined, 56
- apodosis, 62
- arguments
 - defined, 75
 - meaning in, 2
 - pseudo-agreement in, 73–74
 - relative merits of, 79
 - relevance in
 - vs. persuasion, 97, 98, 106, 108–09
 - principles of, 97–109
 - in surveys, 83, 84–86, 87
 - surveys of, 79–84
 - completeness of, 75
 - examples, 86–95
 - issue expressions of, 80, 81–82, 83, 84, 85–86, 87, 98, 109
 - as method of thinking, 78
 - neutrality in, 100
 - pitfalls, 78–79
 - quick decisions and, 82
 - reasons vs. motives in, 76–78
 - relevance in, 83, 84–86, 87
 - tenability in, 84–86
 - See also* debate; persuasion
- Aristotle, 97
- assertion, 3, 8
- asymmetrical relation, 27
- begging the question, 42
- B entities, 4
- bias
 - vs. irrelevance, 109
 - in presenting opponent’s view, 99–100, 102–05, 106–07
- Bryce, James B., 34
- Carneades, 78
- catchphrases, 38, 51–53, 70
- causa* (motivation), 76–77
- ‘C’ entities, 4–5
- certainty, 78
- circle diagrams of precization, 30
- circular definition, 43–44
- circulus vitiosus*, 42–43
- clarity, 44–46
- cognitive content, lxvii
 - effective discussion of, 97
 - of equivalent expressions, 7–8, 9, 11
 - in prescriptive definition, 33
 - statements as thought-content, 2–3, 4–5
- cognitive equivalence, 7–8, 9, 11
 - in prescriptive definition, 33
- communication, lxvii
- concepts
 - fruitful, 50–51
 - statements as, 4–5
 - See also* ideas; statements
- conclusions
 - analytically drawn, 61–62
 - from opponent’s views, 102–05, 107
 - of *pro aut contra* surveys, 79, 80, 84
- conditional sentences, 62
- consequences, in argument, 75, 86

INDEX

- context
 - of argument, 106, 107
 - of definition, 32
 - of expression
 - equivalence and, 9, 14–15
 - interpretation and, 19
 - meaning and, 1–2, 3, 5
 - precization and, 66
 - of term, 22
 - See also* situation; state of affairs
- contra arguments, 83
- contradiction, 60
- counterarguments, 76–78
- debate, 97
 - definitions in, 37
 - meaning in, 2
 - precization and, 46–47
 - See also* arguments; persuasion
- definiendum*, 32, 39
- definiens*, 32, 39
- definitions
 - circular, 43–44
 - kinds of, 32, 34
 - the word “definition,” 31–32
 - See also* descriptive definitions; prescriptive definitions; real definitions
- democracy
 - definitions of, 34, 36, 71–72
 - presupposes competent discussion, 109
- denotation
 - of expression, 4
 - of term, 20–21
- deprecization, 27, 53–54
 - in political organizing, 70
- depth of meaning, 22–24, 38
- descriptive definitions, 31, 34–35
 - combined with prescriptive, 31, 36
- descriptive issue expressions, 85–86
- disagreement. *See* agreement and disagreement
- discussion. *See* arguments
- disjunction, 56
- distortion of facts, 105–06, 107, 109
- dyslogisms, 70
- equivalent expressions, 9–11
 - cognitive equivalence, 7–8, 9, 11, 33
 - defined, 7, 16
 - interpretations as, 17
 - nonequivalence and, 12–16
 - statement equivalence, 8, 9
 - tenability and, 12
- essential definitions. *See* real definitions
- eulogisms, 70
- evading the issue, 42–43
- existence
 - denotation of terms and, 20–21
 - states of affairs and, 4
- expressions
 - context of
 - equivalence and, 9, 14–15
 - interpretation and, 19
 - meaning and, 1–2, 3, 5
 - precization and, 66
 - functions of, 3
 - vs. sentences, 2
 - sentences as, 3, 4
 - vs. statements, 2–3, 4–5
 - terms in, 4, 20–22, 27, 28
 - See also* equivalent expressions; interpretation; issue expressions; meaning; precization
- F*₀. *See* issue expressions
- facts
 - arguments and, 75, 78
 - distortion of, 105–06, 107, 109
- first-order arguments, 82–83
- generalization
 - of opponent’s view, 99
 - vs. precization, 28, 29–30
- Herriot, Édouard, 71–72
- Hitler, Adolf, 15, 16, 70
- Ibsen, Henrik, 52
- ideas
 - argument about, 97
 - statements as, 2–3, 4–5
 - See also* concepts; statements
- implication
 - alleged, 102–05, 107
 - See also* conclusions
- influence. *See* persuasion
- interpretation, 16–18
 - ambiguous, 100–102
 - correct, 6–7, 20
 - defined, 17
 - depth of understanding and, 22–24
 - finding interpretations, 18–19
 - logical properties of, 18

INDEX

- practical need for, lxviii, 2
- precization as, 8, 26–31
- in prescriptive definition, 32, 33
- reasonable, 19–20, 26–28, 30–31
- of terms, 21–22
- intransitive relation, 18
- irrelevant arguments, 98–99, 102
 - accusations of, 108
 - vs. bias, 109
 - precization and, 109
 - in *pro et contra* surveys, 83, 98
 - See also* relevant arguments
- issue expressions (F_0), 80, 81–82, 83, 84, 85
 - descriptive, 85–86
 - normative, 85, 86, 87, 109
 - relevance and, 98, 109
- James, William, 37–38
- language
 - functions of, lxvii, 3, 26
 - usage
 - describing vs. prescribing, 31
 - truth and, 55–57
 - variations in, 5–6, 48–49
- Le Bon, Gustave, 71, 72
- logical argument, 2
- logical conclusions, 61–62
- meaning
 - changes in, 6, 48–49
 - cognitive vs. total, 7, 11
 - context of expression and, 1–2, 3, 5
 - context of term and, 22
 - depth of, 22–24, 38
 - descriptive definition and, 31, 34
 - equivalence and, 10, 11, 12
 - interpretation and, lxviii, 6–7, 16–17
 - precization and, 38
- metaphors, 51–52
- Mill, John Stuart, lxvii
- misunderstanding
 - ambiguity and, 2, 5, 47, 100–102, 107
 - definition and, 39, 44
 - in everyday life, 1
 - of opinion polls, 38–39
 - precization and, 40–41, 46–47
 - relevance and, 98
 - See also* pseudo-agreement; pseudo-disagreement; understanding
- motivation (*causa*), 76–77
- muddying the issue, 44–46
- Mussolini, Benito, 71, 72
- Nearing, Scott, 34
- negative analytic statements, 56, 57, 58
- neutrality. *See* bias
- nonequivalent expressions, 12–16
 - defined, 12, 15
- normative issue expressions, 85, 86, 87, 109
- “not,” 56
- obscurum per obscurius*, 44–46
- opinion polls, 38–39
- “or,” 56
- P. See* person
- person (*P*)
 - equivalent expressions and, 9–16
 - interpretation and, 17–20
- persuasion
 - cognitive content of, lxvii
 - distortion of opponent’s views in, 46–47
 - pseudo-agreement and, 70
 - vs. relevant argument, 97, 98, 106, 108–09
 - See also* arguments; debate; preaching; propaganda
- petitio principii*, 42
- Plato’s dialogues, 97
- popularization, 53–54, 69–70
- positive analytic statements, 56, 58, 59
- preaching, lxvii, 48, 97, 109
- preciseness
 - of isolated expressions, 5
 - in science, 5–6, 25–26
 - vs. tenability, 28–29
 - of two expressions compared, 30–31
- precization
 - aims of, 25, 37–39
 - of catchphrases, 51–53
 - circle diagrams of, 30
 - defined, 8, 26–31
 - vs. definition, 31, 39
 - degrees of, 25–26, 40–41
 - pseudo-agreement and, 65–66, 68–69, 73–74
 - deprecization, 27, 53–54, 70
 - describes existing usage, 31
 - for different groups, 41, 47, 60
 - of equivalence, 11
 - errors in, 46–48
 - formal structure of, 27

INDEX

- precization (*continued*)
 - vs. generalization, 28, 29–30
 - vs. interpretation, 27
 - of issue expressions, 81–82
 - of metaphors, 51–52
 - relevance and, 109
 - vs. specification, 29–30
 - of terms, 27, 28
 - See also* preciseness
- premises, 61–62
- prescriptive definitions, 31–33
 - aim of, 39–40
 - analytic statements and, 37, 57, 60–61
 - circular, 43–44
 - defined, 32, 34
 - vs. descriptive definitions, 31, 34
 - descriptive definitions combined with, 31, 36
 - examples, 33–34, 35–37
 - pitfalls, 41–46
 - vs. precization, 31, 39
 - vs. real definitions, 34, 36
 - truth and, 55, 57
- pro arguments, 76, 82–83
- pro aut contra* surveys, 79–80
 - after *pro et contra* surveys, 82, 84–85, 100
 - example, 87
 - relevance in, 87
 - See also* issue expressions
- pro et contra dicere*, 78
- pro et contra* surveys, 79–84
 - examples, 86, 87–95
 - quick decisions and, 82
 - relevance in, 83, 84–86
 - tenability in, 84–86
 - See also* issue expressions
- proof potential of argument, 85
- propaganda, 38, 48, 52, 97, 108
- protasis, 62
- pseudo-agreement, 63–69
 - in argument, 73–74
 - political examples, 70, 71–72
 - scientific example, 69–70
- pseudo-disagreement, 63–69
 - political examples, 70–71, 72
 - scientific example, 69
- pseudo-problems, 37–38
- rationalizations, 76
- ratio* (reason), 76, 77
- real definitions, 34, 35, 36
- reason (*ratio*), 76, 77
- reference
 - of statement, 4
 - of term, 20–21
- reflexive relations
 - interpretation is reflexive, 18
 - precization is nonreflexive, 27
- relevant arguments
 - vs. persuasion, 97, 98, 106, 108–09
 - principles of, 97–108
 - in surveys, 83, 84–86, 87
 - See also* irrelevant arguments
- rhetoric, two forms of, 97
- Russell, Bertrand, 35
- S. *See* situation
- science
 - analytic statements in, 59
 - argument vs. persuasion in, 108–09
 - changing meanings in, 48–49
 - as context of expressions, 14–15
 - definitions in, 40
 - fruitful concepts in, 50–51
 - popularization of, 53–54, 69–70
 - preciseness in, 5–6, 25–26
 - pro and contra arguments in, 78
 - pseudo-agreement about, 69–70
 - pseudo-disagreement about, 69
- second-order arguments, 83
- sentences
 - as expressions, 3, 4
 - vs. expressions, 2
 - vs. terms, 21
- side issues, 98–99, 106, 108
- situation (S)
 - equivalence and, 9, 12–16
 - function of expression and, 3
 - interpretation and, 17, 18–20
 - See also* context; state of affairs
- slogans. *See* catchphrases
- specification, 29–30
- Stanislavsky, Konstantin, 2
- statement equivalence, 8, 9
 - See also* equivalent expressions
- statements
 - equivalent, 10
 - equivalent expressions and, 7, 8, 9
 - vs. expressions, 2–3, 4–5
 - vs. states of affairs, 4
 - terms and, 21

INDEX

- state of affairs, 4
 - equivalence and, 9, 12, 16
 - See also* context; situation
- surveys. *See* arguments, surveys of
- symmetrical relations
 - interpretation is symmetrical, 18
 - precization is asymmetrical, 27
- synonyms, 9
 - by definition, 32
- synthetic statements, 37, 56–61
 - defined, 56
- tautology, 56
- tenability
 - of arguments, 84–86, 98
 - of expressions
 - vs. equivalence, 12
 - vs. preciseness, 28–29
 - of statements, 4
 - See also* truth; validity
- terms, 4, 20–22
 - for concepts, 50–51
 - interpretation of, 21–22
 - precization of, 27, 28
- thought-content. *See* cognitive content
- transitive relations
 - interpretation is transitive, 18
 - precization is intransitive, 27
- truisms, 59–61
- truth
 - of analytic statements, 55–56
 - of arguments, 85
 - of expressions, 2, 7, 8
 - prescriptive definitions and, 55, 57
 - pseudo-agreement about, 64
 - of statements, 4
 - of synthetic statements, 56–57
 - See also* tenability; validity
- understanding
 - depth of, 22–24
 - in everyday life, 1
 - See also* misunderstanding
- validity
 - of arguments, 76, 86, 87
 - of conclusions, 61
 - of expressions, 6–7
 - of statements, 4
 - See also* tenability; truth
- verbal agreement or disagreement, 63–64, 65, 66, 67

Arne Naess was born in Slemdal, Norway, in 1912. One of Norway's foremost philosophers, known especially for his innovative eco-philosophy, Naess began his work with peace studies, global justice, and human rights, and continued with environmental matters. The subjects of his scholarly work and interests include empirical semantics, logic and foundations of science, communication theory and practice, Spinoza, scepticism, gestalt ontology, and normative systems theory. Naess's contributions have been honored by many awards, including Norway's Peer Gynt Award, Denmark's Sonning Prize, the Nordic Council Award for Nature and Environment, the Uggla Prize for Humanistic Studies from Stockholm University, and the Mahatma Gandhi Prize for Non-violent Peace.

Naess graduated from the University of Oslo in 1933, studied in Paris and Vienna, and became the youngest person appointed to a full professorship of philosophy at the University of Oslo, where he worked from 1939 to 1969. Since 1970, he has continued his work as a philosopher, naturalist, and environmental activist. He has been involved with the University of Oslo's Center for Development and the Environment since 1991. The Arne Naess Chair in Global Justice and the Environment is being established at the university to encourage scholars to engage creatively with Naess's work and ideas, in particular to promote new insights into environmental issues and the challenges posed by globalization, and to develop ideas that will help to humanize the difficult and conflict-laden transition to sustainability. Naess holds honorary doctorates from Stockholm University and The Norwegian National University of Sports and Physical Education. He is also an honorary member of The Norwegian Alpine Club and The Norwegian Tourist Association.

In addition to writing countless articles and essays that have been translated into several languages and have appeared in anthologies and journals throughout the world, Naess is the author of numerous books, including *Life's Philosophy: Reason and Feeling in a Deeper World* and *Ecology, Community and Lifestyle*. He was founder and editor of the journal *Inquiry*, and has lectured in many countries. As a mountaineer, Naess was the first to climb Tirich Mir in Pakistan. In the 1930s, he built a hut on Hallingskarvet Mountain in Norway, where he spent much time reflecting upon and relating to the surroundings and native plants of his retreat. His respect and appreciation for diversity, wonderment, and our relationship to

the natural world has continued throughout his life and is reflected in the spirit of his work.

Naess currently lives in Oslo with his wife, Kit-Fai.

Harold Glasser, Ph.D. is Associate Professor of Environmental Studies at Western Michigan University in Kalamazoo, Michigan. He has been a visiting Senior Fulbright scholar at the Center for Development and Environment and Department of Philosophy, University of Oslo; a Resource Person for the United Nations University–Institute of Advanced Study; a visiting researcher at the International Institute for Applied Systems Analysis; and a lecturer at Schumacher College. He has written on environmental philosophy, policy, and planning, as well as green accounting, education for ecological sustainability, and campus sustainability assessment.

Alan R. Drengson, Ph.D. is Emeritus Professor of Philosophy at the University of Victoria, in Victoria BC Canada. He is a former Director of Environmental Studies and is currently an Adjunct Professor of Graduate Studies. He is the author of numerous articles, reviews, and books, as well as the editor of three anthologies and the founding editor of two journals, *The Trumpeter: Journal of Ecosophy* and *Ecoforestry*.

Designed by Tamotsu Yagi Design
Composed by Ralph Fowler and BookMatters in Garamond 3
Printed by Krips, Meppel on Cyclus Offset 90 gr/m²
Bound by Callenbach, Nijkerk in Elite and stamped with Colorit 922

Notes

Chapter 2: Logical Equivalence, Intentional Isomorphism, and Synonymy as Studied by Questionnaires

1. In *Interpretation and Preciseness* (SWAN I) the terminology is sometimes misleading, suggesting as it does that Qs5B-synonymy and, in general, concepts of questionnaire synonymy are offered as candidates for the title “adequate definition of synonymy.”
2. The term *synonymy* is not taken here in any technical sense; it corresponds to the occurrences of “learning” or “intelligence” in the titles of articles in which certain technical concepts of learning or intelligence are introduced and made use of.
3. See pp. 61 ff., and particularly D14–B2 on p. 70. Strictly speaking, I do not know for certain what Carnap would wish to mean by *L*-equivalent if used in reference to ordinary language. The following rests on one interpretation among many possible ones.
4. A questionnaire question is here said to be misinterpreted if the interpretation differs from that intended by its framer.
5. See Naess 1954a.
6. In school we learn that the correct vernacular is based on explicit rules (usually having some exceptions), but in the light of linguistics such a view is not tenable—without heavy modifications.
7. Qs1A- rather than Qs1B-synonymy is used in this hypothesis because the respondents seldom interpret the question sentence of Qs1 as its framer does.

Chapter 3: A Study of *Or*

1. The study of how the child’s logical concepts arise has been approached with nonverbal techniques by J. Piaget and by B. Inhelder. See Piaget 1953.
2. The percentages here and below are percentages of the total number of *classifiable* answers. The percentage of unclassifiables was high for some of the groups.

Chapter 4: Typology of Questionnaires Adapted to the Study of Expressions with Closely Related Meanings

1. See Naess 1958: 476 (in this volume).
2. The objection that Qs-family-1-synonymy is not real synonymy is of the same nature as the objection that intelligence as measured by this or that test is not real intelligence. See Naess 1957.
3. If questionnaires have been used in a study the results of which have been published, a reference is made to the publication, here and below.
4. See species 1 of genus 1, family 1. No definite event of interpretation is presumed analyzed. Under strange, imagined conditions, the text may acquire other meanings, and these may be conceived by the subject. Qs5-synonymy is present if *T* and *U* make similar changes in meaning with similar changes of conditions.
5. See especially note 7 in Carnap's "Meaning and synonymy in natural languages" (1956).
6. The choice of hypotheses leads to the main problems of meaning analysis of occurrences of terms in natural languages (see Naess 1954b).

Chapter 5: The Empirical Semantics of Key Terms, Phrases, and Sentences: Empirical Semantics Applied to Nonprofessional Language

1. Referred to (briefly) on pp. 383–84 in *Erkenntnis* 7.
2. In using this example, I do not take up the question of how "strong" the equivalences are. Some are certainly too weak to serve as a basis for substitutability.

Chapter 6: A Necessary Component of Logic: Empirical Argumentation Analysis

1. As an example of the neglect of empirical components in logic, let me recount an amusing incident that occurred at the Congress for Unified Science convened by the logical empiricists at the Sorbonne in the 1930s. As a central feature of that congress, the organizers had chosen the presentation of Alfred Tarski's theory of truth. This theory has an empirical component: the "adequacy" of definitions in relation to common usage. Although I had a large amount of material on the subject, only a small fraction of it could be said directly to confirm or corroborate the empirical pretensions of Tarski's paper. The material was declared largely irrelevant, however, because intuitive understanding was considered sufficient.

**Chapter 7: “You Assert This?”:
An Empirical Study of Weight Expressions**

1. Measuring the length of text by the number of words is less adequate, because the average word in, for example, German texts is longer than in English. As a consequence, one would overestimate the frequency of weight expressions in German if the unit of text were taken to be one word.
2. The choice of texts was to some extent based on what was available in a small library in my hut at Tvergastein.
3. For a discussion of knowledge as *Verhaltensweise*, see Naess 1936.
4. On confrontation with the “apodictic” certain, see Naess 1954c: 53–63.
5. The option of possibilism is favored in my *Pluralist and Possibilist Aspect of the Scientific Enterprise* (1972 [SWAN IV]).

Chapter 8: Husserl on the Apodictic Evidence of Ideal Laws

1. Husserl 1913: 1:51. All quotations are from the 2d ed. (1913). (“The essential theoretical foundations of Logic lie in psychology. . . . Logic is related to psychology just as any branch of chemical technology is related to chemistry, as land-surveying is to geometry, etc.” Findlay ed. 1:90.)
2. Husserl 1913: 1:57. (“Theoretically regarded, Logic therefore is related to psychology as a part to a whole. Its main aim is, in particular, to set up propositions of the form: Our intellectual activities must, either generally, or in specifically characterized circumstances, have such and such a form, such and such an arrangement, such and such combinations and no others, if the resultant judgments are to have the character of evidence, are to achieve knowledge in the pointed sense of the word.” Findlay ed. 1:94–95.)
3. Husserl 1913: 1:68. (“The psychologistic logicians ignore the fundamental, essential, never-to-be-bridged gulf between ideal and real laws, between normative and causal regulation, between logical and real necessity, between logical and real grounds.” Findlay ed. 1:104.)
4. Husserl 1913: 1:13. (“an immediate intimation of truth itself,” and “the luminous certainty that what we have acknowledged *is*, that what we have rejected *is not*.” Findlay ed. 1:60–61.)
5. Husserl 1913: 1:229. (“If now we perform an act of cognition, or, as I prefer to express it, live in one, we are ‘concerned with the object’ that it, in its cognitive fashion, means and postulates. If this act is one of knowing in the strictest sense, i.e., if our judgment is inwardly evident, then its object is *given* in primal fashion [*originär*]. The state of affairs comes before us, not

merely putatively, but as actually before our eyes, and in it the object itself, *as* the object that it is, i.e., just as it is intended in this act of knowing and not otherwise, as bearer of such and such properties, as the term of such relations, etc.” Findlay ed. 1:226.)

6. Husserl 1913: 1:73. (“one of countless theoretical possibilities within a certain factually delimited sphere” . . . “the single, sole truth, which excludes all other possibilities.” Findlay ed. 1:107.)

Chapter 9: Can Knowledge Be Reached?

1. Another restriction is this: I do not speak about “knowledge” that this is a table, that it is not raining on the table, and so on. With certain kinds of everyday utterances, we scarcely talk about evidence, collecting more evidence, etc. I am talking about utterances in relation to which it is pertinent to ask, What about the evidence?
2. This last maxim does not, of course, hold if one takes “*p* is known” to be implied by “our evidence that *p* is up to the relevant standards.” Then, however, one must also face the possibility of having to accept statements such as “Yesterday Mr. A knew that there are birds on Mars whereas Mr. B knew that there are no birds on Mars.”

Chapter 10: Pyrrhonism Revisited

1. I follow, in the main, the terminology of Sextus Empiricus and his *Outlines of Pyrrhonism*. This quotation, from the opening of the work, is translated rather freely. *Tois zetousi* is translated as “investigators” rather than as “searchers” or “seekers” in order to make it more plausible that a person can be an *all-around* “zetetic.” He is a permanent searcher relative to all *systematic* investigations, not relative to all everyday searchings. He does not find his socks less often than others (but perhaps they never were his).
2. See *Outlines of Pyrrhonism*, bk. 1, chap. 29.
3. The exclusion of the admitted possibility of error in knowledge claims goes back to Plato and Aristotle. See my *Scepticism* (1968: 77n [SWAN II]).
4. For affirmation of truth, Sextus mainly uses the term *apophasis*; for utterances such as exclamations, he uses *phoné* (sound). It is a noncommittal word that largely leaves open the *kind* of meaning, whether propositional or performatory.
5. See *Outlines of Pyrrhonism*, bk. 1, chap. 23, and Naess 1968: 10 (SWAN II). The Sceptic is said to report things “as a chronicler,” to report what strikes him at

the moment without reflecting on truth or falsity. This characterization is misleading today because a chronicler *is* generally supposed to tell what is true. The Greek expression is *historikos apangellomen*, which may be interpreted in the direction of uttering something as indicative of one's mind, giving vent to a feeling or attitude or unreflective belief.

6. The Sceptic deliberately "talks loosely," according to Sextus, because otherwise the Dogmatist misunderstands his pretensions. The Sceptic does not pretend to have a definite conceptual framework within which he conceives his own Scepticism. See Naess 1968: 10 (SWAN II).
7. In defending Sextus's way (*agogé*-way, not doctrine), it is important to use a distinction such as that between an idea or notion and a (fairly precise) concept. The arguments used by Sextus against holding evident or trivial sentences such as "There are men" rely heavily on requests for definitions of *man* or other crucial terms in the proposed "truths." He may be said to ask for a conceptualization of "There are men" such that it is made into a theoretical proposition constituted (*konstituiert*) within a definite conceptual frame. Sextus tends not to hold back positive reaction to what "seems so," what "seems evident," but starts reflecting when utterances are taken to express true or false propositions.
8. A detailed discussion of incorrigibility may be found in Naess 1968: 136–51 (SWAN II).
9. In his first publications, Tarski proclaims that his conceptual construction is adequate in relation to what "true" ordinarily means, that it is "*sachlich richtig*." However, no empirical investigation had been made. The data I gathered in the 1930s confirmed his hypotheses in only about 70 percent of the cases, and then only when one adopts several nonintuitive auxiliary hypotheses.
10. For some detailed arguments, see my "Freedom, emotion, and self-subsistence" (1969a).
11. See, e.g., *Outlines of Pyrrhonism*, bk. 1, chaps. 7 and 10.

Chapter II: Trust and Confidence in the Absence of Strict Knowledge and Truth: An Answer to Nicholas Rescher's Critical Reappraisal of Scepticism

1. See my "Common sense and truth" (1938a: 39–58 [in this volume]) and the many interviews in my *Truth as Conceived by Those Who Are Not Professional Philosophers* (1938b).

Chapter 12: How Can the Empirical Movement Be Promoted Today? A Discussion of the Empiricism of Otto Neurath and Rudolf Carnap

1. See writings by C. S. Peirce and W. James and their discussions with the “intellectualists” in the *Journal of Philosophy, Psychology and Scientific Method*, vols. 4 ff.
2. Older formulations of physicalism may be found in Neurath 1931 and in papers by Carnap and Neurath in *Erkenntnis* 2: 397, 441 and *Erkenntnis* 3: 136, 185 ff. See *The Monist* 41:620. Newer formulations may be found in the publications by Carnap mentioned in the text, as well as in Neurath 1937a. See also Neurath 1935, 1937c.
3. See Naess 1936: secs. 37 ff. (n. 13).
4. See Carnap 1932a, 1934, 1935a; Hempel 1935, 1936.
5. Hull 1938; “Preliminary draft of theorem sequence covering adaptive behavior” (MS). See also the research programs (not “doctrines”): “Memorandum presenting rough preliminary statements of problem groupings involved in a coordinated study of motivation” (37c); “Notes on some tentative research projects for the investigation of motivation based primarily on hunger” (37b).
6. See also Frank 1938.
7. One can find many a striking remark on antiempirical tendencies in psychology in Neurath 1933.
8. See the publications mentioned above by Neurath and Carnap since 1935, but also: Neurath 1936a; Kämpffert 1937. (The foundation of science was the program of the “Encyclopedia Committee of the Organisation for the Unity of Science.”)
9. Because this term was often misunderstood, Bleuler later gave it up. Nowadays he speaks of “dereistic thought.” In his textbook on psychiatry, Bleuler (1923) writes:

When we give our imagination free play, in mythology, in our dreams, in many pathological states, our thought will not and cannot trouble itself with reality; it follows goals set by instincts and passions. It is characteristic of this “dereistic thought,” “the logic of feeling” (Stransky), that it disregards contradictions with reality—Mythology lets the Easter hare lay eggs because hares and eggs happen to have in common that they are sacred fertility symbols of the Ostara. A paranoid person finds a fibre of flax (*Lein*) in his soup; this proves his relations to Miss Feuerlein. The reality that does not fit in with such thinking is not merely ignored but actively split off.

The concept of “reality” as used here by Bleuler seems to be translatable by “reality of everyday life and of the sciences”; so it is not meant as a philo-

sophical reality concept. When I use the term *autistic* below, I have Bleuler's examples in mind, particularly those in his book on medicine, and not his definitions, which on account of his use of terms like *reality* seem rather too unclear to me to be applied within the area of discussion of the present paper.

10. [Editors' note: Cf. the Dutch philosopher-logician E. W. Beth's war against the so-called philosophical disciplines—philosophical logic (for the logic of the Interregnum), Naturphilosophie, etc.—that in this opinion were continued and called by that name in order to prevent unexpected scientific results from attaining cultural and philosophical influence.]
11. [Editors' note: The German *eine Präzisierung*, Norwegian *en presisering*, is of the greatest importance in this and other publications by Naess. The fact that English does not have a direct translation of this noun, nor of the verb *å presisere* (*en formulering*), German *präzisieren*, makes it hard to translate texts in which one of these words occurs. I (E. M. B.) have usually translated the sentences in which they occur into ordinary English. Naess's translators often make use of two neologisms in English: (1) to precizate an utterance of a formulation, which in Naess's writings means exactly to make it more precise by replacing it with an utterance of another formulation that eliminates some reasonable interpretations without adding new ones; and (2) a precization (of an utterance of a formulation), which means the outcome of a precizing operation, as well as the operation itself.]
 Pier A. Smit has pointed out to us that C. S. Peirce had already suggested the introduction of a new word in English as a translation of *presisering/Präzisierung*. Naess was not aware of that: "we only knew one paper of Peirce's here at that time; his *Collected Works* came later" (Naess, in letter to E. M. B.).
12. [Editors' note: Naess did this himself, viz., in his empirical studies of the understanding, by the man in the street, of "or," "true," etc.]
13. [Editors' note: Naess's definition of *is a precization of*, or *is more precise than*, in terms of a reduction of the class of "reasonable interpretations," is found in his *Communication and Argument* (1966) and in many other publications.]
14. In this section, I have attempted to summarize the ideas that inspired me to write the treatise *Wie fördert man heute die empirische Bewegung?* insofar as I want to defend them today.
15. In the history of philosophy and science one finds examples of thinkers who are hardly ever characterized as empiricists but who did further the empirical movement. It is sufficient to mention Plato's contribution to geometry and also that of Eudoxus. Moreover, there are examples of thinkers usually classified as empiricists who turned down contemporary research, or who ascribed a definitive character to their own results. Here Francis Bacon and Auguste Comte may serve as examples. It would therefore not be correct to identify all

contributions of so-called empiricists, and only those, with the empirical movement.

Chapter 14: Logical Empiricism and the Uniqueness of the Schlick Seminar: A Personal Experience with Consequences

1. I have been asked whether the influence of logical empiricists on my thinking limits itself to their wonderfully friendly—almost Gandhian—philosophy and technique of communication. Of course not. I am also indebted to them for their use of symbols. Without symbols I would have found the conceptual structure of Spinoza's *Ethics* much too complicated to survey. There are about 300 important extensional equivalences between the terms he uses. That is, he in part answers (as transformation rules) or declares (as "hypotheses" about the actual use of terms) a manifold of relations that should not be neglected in any interpretation of his wonderful text. It is pathetic to see how people shy away from reading my *Conceptual Structure* . . . when their eyes fall on the symbolic version of Spinoza's theorems. Incidentally, Joel I. Friedman has now studied how the proofs of the first part of the *Ethics* can be made acceptable from the point of view of modern formal logic. The result is that the addition of only 164 premises will do the job. The majority are utterly trivial—Spinoza would not have cared to mention them.
2. Today it is difficult to understand why Schächter's mildly critical way of assessing material implication was met with indignation. He introduced a sign "symbol" to symbolize an if-then relation closer to that of everyday language. The sign "-" indicates that nothing is said in these cases.

p, q	$p \rightarrow \bar{q}$	$p \rightarrow q$	$p \rightarrow \bar{q}$	$\bar{p} \rightarrow \bar{q}$
WW	W	F	-	-
WF	F	W	-	-
FW	-	-	W	F
FF	-	-	F	W

It was found intolerable that Schächter (p. 176 in his dissertation) flatly denied that logic consists of tautologies: its rules are obviously not tautologies, nor are its grammatical *Konstatierungen*—I deplore that he did not explain why material implication was extensively used, seemingly with great success.

3. Dissatisfaction with the treatment of empirical components of philosophical problems within the analytical tradition made me work many years on experimental and other procedures to arrive at scientifically testable conclusions on the use of words, in scientific and everyday language. In the preface to *Interpretation and Preciseness* (1953 [SWAN I]), my last effort to make a new unpretentious, slight *Wende der Philosophie*, I state my aims in formulations like the following:

Very roughly, one may distinguish a deductive, an intuitionistic, and an empirical component in the writing of analytical philosophers. Even in those cases where deductions and intuitions can help us considerably, consistent neglect of the empirical component will bring research toward stagnation. If empirical studies are neglected, we shall see much intelligent debate along intuitionistic lines, but less of that process which many of us find so inspiring in the history of philosophy and science: the development of new branches of reliable knowledge as a result of combined philosophical and scientific efforts.

My efforts to establish a wide group of “scientifically inclined” philosophers who in close cooperation would pursue the empirical components of the problems facing logical empiricists largely failed—for reasons that were not too difficult to unravel. As regards professional studies of language, Noam Chomsky told me frankly in about 1955 that their interest in the years to come would go in a very different direction: that of deep grammar, transformational grammar, generative grammar, and so on. He was perfectly right. Even though studies of the use of terms like *democracy*, *ideology*, and *objectivity* increased in importance before, during, and after World War II, and especially during the Cold War, performing detailed investigations of the sort I had in mind was not inspiring. In the politically relevant field, Chomsky chose a more fruitful, direct way of cooperation than mine! However, some logicians and philosophers have persevered; see, for example, *From an Empirical Point of View*, edited by E. M. Barth, J. van Dormael, and F. Vandamme.

Chapter 15: The Spirit of the Vienna Circle Devoted to Questions of *Lebens-* and *Weltauffassung*

1. [Editors' note: See “Logical Empiricism and the Uniqueness of the Schlick Seminar: A Personal Experience with Consequences,” this volume.]
2. For more about this, see my *Scepticism* (1968, 1969b [SWAN II]).
3. What is said in this article about total views and Spinozistic views is elaborated in various publications. See, e.g., Naess 1975 (SWAN VI), 1989.

Chapter 16: Do We Know That Basic Norms Cannot Be True or False?

1. Professor Alf Ross emphatically disapproves of my suggestion in a previously published version of this article that value objectivism should be less icily considered than has been the case in recent Scandinavian philosophy of value. He refers to his own counterarguments in “On the logical nature of propositions of value” (1945). I have in what follows tried to show why his counterar-

guments are not convincing. Magister E. Stroheim has, by his unpublished manuscript, influenced my conclusions (toward a priorism).

2. See Ofstad (1951: 55 ff.) for a summary of Ross's argument.
3. Empirical tests of various kinds have shown that this way of speaking is rather common, but not, or at least not always, associated with an explicit or implicit belief in a normative or ideal "reality," a Platonic heaven.
4. "Nun gibt diese ideale Forderungen, die weder in einer objektiven Realität, noch in unserm Subjekt ihre Heimat hat, ebendamit ein Problem auf, dass man wahrscheinlich nur durch das Axiom lösen kann, dass diese als Anspruch des Daseins an uns auftretende Ordnung eine selbständige, nicht auf Bekannteres zu reduzierende, völlig autochtone Kategorie ist. . . . Es kann diese Entgegengesetztheit der Ursprünge zu haben scheinen, weil es tatsächlich von keinem dieser herkommt, sondern einen ebenso primären und eigenrechtlichen Ursprung hat, wie das subjektive Leben und die äussere oder die geschichtliche Realität" (Simmel 1950: 117).
5. A critique is attempted in my "Husserl on the apodictic evidence of ideal laws" (1954c [in this volume]).
6. See, for example, what Henry Sidgwick, the intuitionist, has to say: "when I speak of the cognition or judgment that 'X ought to be done'—in the stricter ethical sense of the term ought—as a 'dictate' or 'precept' of reason to the persons to whom it relates, I imply that in rational beings as such this cognition gives an impulse or motive to action: though in human beings, of course, this is only one motive among others which are liable to conflict with it, and is not always—perhaps not usually—a predominant motive" (Sidgwick 1874: 34). "Unser Bewusstsein empfindet Forderungen an sich gerichtet, die es durch den Willen realisieren kann" (Simmel 1950: 114). Our obligation can be realized or our wish to do our duty only if the prescription furnishes a sufficiently strong motive.
7. The narrowness of this conception is well argued by Marc-Wogau in his "Axel Hägerströms verklighetsteori" (1940). The author thinks that scepticism about the existence of nonmaterial worlds sometimes owes to lack of *empirical* reasons. This is in line with our own thinking.
8. One main source of Ross's argument for value nihilism is his requirement that truths should be testable or confirmable in a rather definite way, which he describes in detail. If this requirement is accepted as a basic postulate, the position of value objectivists is indeed in mortal danger; but why should the objectivists accept it? It has the form of a postulate, and arguments presuming acceptance of the postulate are irrelevant to those who do not accept it. For criticism of the postulate, see Ofstad 1951.

Chapter 20: Gestalt Thinking and Buddhism

1. I follow here the gestalt terminology I used in “The world of concrete contents” (1985: 417–28 [in this volume]).
2. See, e.g., what Suzuki (1963: 140) calls the “ground-principles of the philosophy of Mahāyāna Buddhism, and, indeed, of all the schools of Buddhism”:
 1. All is momentary (*sarvam kṣanikam*).
 2. All is empty (*cūnyam*).
 3. All is without self (*anatman*).
 4. All is such as it is (*tathatvam*).
3. See, e.g., Johansson’s excellent *Pali Buddhist Texts* (1973: 35).
4. In the oblique cases, *sva* is used as a reflexive pronoun, synonymously with *ātman*.
5. Therefore, I think D. G. Merzel’s comment (1982: 1) might be misleading:

This teaching of the illusory nature of the ego is the core of Buddhism, and the *Diamond Sutra* is one of its most profound expressions. According to this sutra even the idea of liberating all beings must not be cherished because in reality there is not one to be saved. If we think, “I must help this person,” we are seeing things dualistically. We are operating out of the idea that there is a self, an “I,” that is doing the saving, and one that is going to be saved.

In this quotation, Merzel freely uses the word *we*: “if we think . . . we are seeing . . . we are operating. . . .” To me, this use of the personal pronoun is neither more nor less metaphysically relevant than the use of the word *I* in saying “I must help this person.”

6. The Buddhist scholar Robert Aitken, who encouraged me to publish this article, has in a personal letter made a couple of comments of importance:

About the word *satori*: this usually refers to an experience, but sometimes it refers to a state or condition. It implies something complete, and in view of the ongoing process of realization after realization, Zen masters generally don’t use it, preferring the word *kensho*, which means “seeing into (true) nature,” and by usage implies a glimpse. D. T. Suzuki used *satori* a lot, so this practice is copied by others. I wonder if references to *inochi* and *kuyo* should include their ordinary translations, “life” and “memorial service.”

I think that Professor Abe’s statement “Only through one’s self-realization can one attain nirvana,” refers to a personal grasp of the fact that all things are empty, and also of the fact that nirvana and samsara are the same. I don’t think that it reflects any concern by Dōgen that the process of generation and extinction be eliminated. The Mahāyāna view that all beings are enlightened from the beginningless beginning makes process a matter of realizing what has always been true.

References

Books or articles appearing in the *Selected Works of Arne Naess* are identified by (SWAN XX) at the end of the entry, where XX refers to the pertinent volume number.

- Abe, Masao. 1985. *Zen and Western Thought*, edited by William R. LaFleur. Honolulu: University of Hawaii Press.
- Ayer, Alfred J. 1962. *The Problem of Knowledge*. London: Pelican.
- Barth, E. M., J. van Dormael, and F. Vandamme, eds. 1992. *From an Empirical Point of View: The Empirical Turn in Logic*. Ghent: Communication and Cognition.
- Black, Max. 1954. "Pragmatic justification of induction." In *Problems of Analysis*, edited by Max Black. London: Greenwood.
- Bleuler, Eugen. 1921. *Das autistisch-undisziplinierte Denken in der Medizin*. Berlin: Julius Springer.
- . 1923. *Lehrbuch der Psychiatrie*, 4 vols. Berlin: Julius Springer.
- Buhler, Karl. 1990. *Theory of Language: The Representational Function of Language*. Translated by D.F. Goodwin. Amsterdam and Philadelphia: J. Benjamins Publishing Company.
- Bridgman, P. W. 1927. *The Logic of Modern Physics*. New York: Macmillan.
- . 1934. "A physicist's second reaction to Mengenlehre." *Scripta Mathematica* 2: 101–17.
- Carnap, Rudolf. 1932a. "Die physikalische Sprache als Universalsprache der Wissenschaft." *Erkenntnis* 2: 432–65.
- . 1932b. "Psychologie in physikalistischer Sprache" (Psychology in physical language). *Erkenntnis* 3: 107–41.
- . 1934. *The Unity of Science*, translated by Max Black. London: Kegan Paul, Trench and Trubner.
- . 1935. "Les concepts physiques et les concepts psychologiques sont-ils dif-

REFERENCES

- férents?" (Concepts of physics and concepts of psychology, are they different?). *Revue de Synthèse* 10.
- . 1936a. "Testability and meaning." *Philosophy of Science* 3: 419–71.
- . 1936b. "Über die Einheitssprache der Wissenschaft: Logische Bemerkungen zum Projekt einer Enzyklopädie." In *Actes du congrès international de philosophie scientifique, Sorbonne 1935*. Paris.
- . 1937. *Logical Syntax of Language*. London: Kegan Paul, Trench and Treubner.
- . 1942. *Introduction to Semantics*. Cambridge: Harvard University Press.
- . 1956. "Meaning and synonymy in natural languages." In *Meaning and Necessity*, 2d ed., by R. Carnap (Chicago, 1956); also in *American Philosophers at Work*, edited by Sidney Hook (New York, 1956). Originally published 1955 in *Philosophical Studies*.
- Comte, Auguste. 1842. *Cours de la philosophie positive* (Course on the positive philosophy). Paris.
- Darwin, Charles. 1882. *The Descent of Man*. London: J. Murray.
- Feyerabend, Paul. 1976. "Logic, Literacy and Professor Gellner." *British Journal for the Philosophy of Science* 27: 381–91.
- Føllesdal, Dagfinn, and E.S. Engelstad, editors. 1957. *Oslo Studentenes Idrettslag 75, Ar/Oslo-Studentenes Idrettslag*. Oslo: Laget.
- Frank, Philipp. 1917. "Die Bedeutung der physikalischen Erkenntnistheorie Machs für das Geistesleben der Gegenwart." *Die Naturwissenschaften* 5: 65–72.
- . 1938. "Bemerkungen zu E. Cassirer: Determinismus und Indeterminismus in der modernen Physik." *Theoria* 4: 70–80.
- Hamilton, William. 1870. *Lectures on Metaphysics and Logic*, vol. 4. Edinburgh: Blackwood.
- Hartmann, Nicolai. 1949. *Ethik*. Berlin: Walter de Gruyter.
- Hempel, Carl G. 1935. "Analyse logique de la psychologie." *Revue de Synthèse* 10: 27–42.
- . 1936. "Some remarks on empiricism." *Analysis* 3.
- Hodgson, Shadworth. 1878. *Philosophy of Reflection*, 2 vols. London: Longmans and Green.
- Holleman, Arnold F. 1927. *Lehrbuch der organischen Chemie* (Textbook of organic chemistry). Berlin & Leipzig: de Gruyter.
- Hull, Clark L. 1937a. "Memorandum presenting rough preliminary statements of problem groupings involved in a coordinated study of motivation." Unpublished ms.

REFERENCES

- . 1937b. "Mind, mechanism, and adaptive behavior." *Psychological Review* 44: 1–32.
- . 1937c. "Notes on some tentative research projects for the investigation of motivation based primarily on hunger." Unpublished ms.
- . 1938. "Preliminary draft of theorem sequence covering adaptive behavior." Unpublished ms.
- Hume, David. 1951. *Treatise of Human Nature*. Oxford: Clarendon Press.
- Husserl, Edmund. 1913. *Logische Untersuchungen*, 2d ed., 2 vols. Halle: M. Niemeyer.
- . 1970. *Logical Investigations*, translated and edited by J. N. Findlay. London: Routledge and Kegan Paul.
- Jaspers, Karl. 1962. *The Great Philosophers*, 2 vols. New York: Harcourt, Brace and World.
- Johansson, Rune. 1973. *Pali Buddhist Texts Explained to the Beginner*. Scandinavian Institute of Asian Studies Monograph 14. Lund: Studentlitteratur (London: Curzon Press, 1981).
- Kämpffert, W. 1937. "Science encyclopedia." *New York Times*, February 14.
- Kiepert, Ludwig. 1920. *Grundriss der Integral-Rechnung*. Hannover.
- Kierkegaard, Søren. 1941. *Concluding Unscientific Postscript*, translated by David Swenson and Walter Lowrie. Princeton: Princeton University Press.
- . 1944. *Either-Or*, translated by David and Lillian Swenson. Princeton: Princeton University Press.
- Kolakowski, Leszek. 1968a. *The Alienation of Reason: A History of Positivist Thought*. Garden City, NY: Doubleday.
- . 1968b. *Toward a Marxist Humanism*, translated by J. Z. Peel. New York: Grove Press.
- . 1972. *A Leszek Kolakowski Reader*. *TriQuarterly* 22. Evanston, IL: Northwestern University.
- . 1973. "Two eyes of Spinoza." In *Spinoza: A Collection of Critical Essays*, edited by Marjorie Grene. New York: Anchor.
- Leroux, Emmanuel. 1923. *Le pragmatisme américain et anglais: Etude historique et critique*. Paris: Felix Alcan.
- Le Roy, Edouard. 1930. *La pensée intuitive*, vol. 2. Paris: Boivin.
- Linsky, Leonard. 1952. *Semantics and the Philosophy of Language*. Urbana: University of Illinois Press.
- Loomis, Frederic B. 1926. *The Evolution of the Horse*. Boston: Marshall Jones.

REFERENCES

- Lövestad, Ludvig. 1945a. *Bidrag til en metodelaere for de eksakte naturvitenskaper*. Oslo: Klubben.
- . 1945b. "The structure of physical laws." *Theoria* 11: 40–70.
- Lundstedt, Anders V. 1925. *Superstition or Rationality in Action for Peace*. London: Longmans, Green.
- Mach, Ernst. 1883. *Die Entwicklung der Mechanik*. Leipzig: Brockhaus.
- Marc-Wogau, Konrad. 1940. "Axel Hägerströms verklighetsteori." *Tiden* 32.
- Marhenke, Paul. 1922. *Scientific Method and the Determination of the Moral End*. Berkeley: University of California.
- . 1949. "The criteria of significance." *Proceedings of the American Philosophical Association*, 1950. Reprinted in *Semantics and the Philosophy of Language*, edited by Leonard Linsky. Urbana: University of Illinois Press (1970).
- Mates, Benson. 1950. "Synonymity." In *University of California Publications in Philosophy* 25: 210–26. Reprinted in *Semantics and the Philosophy of Language*, edited by Leonard Linsky. Urbana: University of Illinois Press (1952).
- Merzel, D. Gempo. 1980. "No mind, no Buddha; gateless gate: Case 33." *The Ten Directions* (journal of the Zen Center of Los Angeles and the Institute for Transcultural Studies) 1, no. 3.
- Morris, Charles W. 1946. *Signs, Language and Behavior*. New York: Prentice-Hall.
- . 1960. "On the history of the International Encyclopedia of Unified Science." *Synthese* 12: 517–21.
- Müller, Conrad H., and G. Prange. 1923. *Allgemeine Mechanik*. Hannover: Helving.
- Naess, Arne. 1936. *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge Acquisition and Scientific Behavior). Oslo: Jacob Dybwad.
- . 1937. "Physikalismus und radikaler Empirismus" (Physicalism and radical empiricism). Unpublished ms.
- . 1937–38. "Gesetzmässigkeiten bei Argumentationsketten." *Erkenntnis* 7: 383–84.
- . 1938a. "Common sense and truth." *Theoria* 4: 39–58. (in this volume)
- . 1938b. *Truth as Conceived by Those Who Are Not Professional Philosophers*. Oslo: Norwegian Academy of Science and Jacob Dybwad.
- . 1941. *Tenkningens utvikling* (The development of thinking), I. Oslo: For Nyere Tid, Universitets Studentkontor, S.S.S.S. Trykk.
- . 1942. *Tenkningens utvikling* (The development of thinking), II. Oslo: For Nyere Tid, Universitets Studentkontor, S.S.S.S. Trykk.
- . 1948. "Notes on the foundation of psychology as a science." In *Philosophical Problems*, edited by Arne Naess. Oslo: University of Oslo Press (1960).

REFERENCES

- . 1953. *Interpretation and Preciseness: A Contribution to a Theory of Communication*. Oslo: Nowegian Academy of Science and Jacob Dybwad. (SWAN I)
- . 1954a. *An Empirical Study of the Expressions "True," "Perfectly Certain," and "Extremely Probable."* Oslo: Skrifter utgitt av Det Norske Videnskaps-Akademi, Hist.–Filos. Klasse, 1953, no. 4.
- . 1954b. "Forekomstanalysens grunn-problemer." Nordisk Sommeruniversitet 1953. Copenhagen.
- . 1954c. "Husserl on the apodictic evidence of ideal laws." *Theoria: A Journal of Swedish Philosophy* 20: 53–63. (in this volume)
- . 1957. "Synonymity as revealed by intuition." *Philosophical Review* 56: 87–93.
- . 1958. "Logical equivalence, intentional isomorphism and synonymity as studied by questionnaires, sacred to the memory of Gerrit Mannoury." *Synthese* 10a (1956–1958): 471–79. (in this volume)
- . 1966. *Communication and Argument*. London: Allen and Unwin (Oslo: University of Oslo Press, 1966). (SWAN VII)
- . 1968. *Scepticism*. Oslo: University of Oslo Press. (SWAN II)
- . 1969a. "Freedom, emotion, and self-subsistence: The structure of a small, central part of Spinoza's *Ethics*." *Inquiry* 12: 66–104.
- . 1969b. *Scepticism*. London: Routledge and Kegan Paul. (SWAN II)
- . 1972. *The Pluralist and Possibilist Aspect of the Scientific Enterprise*. Oslo: University of Oslo Press. (SWAN IV)
- . 1974. "Equivalent Terms and Notions in Spinoza's *Ethics*." Oslo: *Inquiry*, Filosofisk Institutt, University of Oslo.
- . 1975. *Freedom, Emotion and Self-Subsistence: The Structure of a Central Part of Spinoza's "Ethics"*. Oslo: University of Oslo Press. (SWAN VI)
- . 1980. *Filosofiens historie* (History of philosophy), 2 vols. Oslo: University of Oslo Press.
- . 1985. "The world of concrete contents." *Inquiry* 28: 417–28. (in SWAN X)
- . 1989. *Ecology, Community and Lifestyle*. Cambridge: The University Press.
- Nara, Yasuaki. 1985. "The practical value of Dōgen's view of nature." Mimeographed.
- Neurath, Otto. 1931. *Empirische Soziologie* (Empirical sociology). Wien: Julius Springer (English translation, Dordrecht: Reidel, 1973).
- . 1932a. "Sine arte nihil est." *Scientia* 5.
- . 1932b. "Sozialbehaviorismus." *Sociologus* 8.
- . 1933. *Einheitswissenschaft und Psychologie*. Vienna.

REFERENCES

- . 1935. *Le développement du Cercle de Vienne et l'avenir de l'empirisme logique*. Paris: Hermann.
- . 1936a. "Encyclopédie comme modèle." *Revue de Synthèse* 12: 187–201.
- . 1936b. *International Picture Language*. London: Kegan Paul.
- . 1936c. *Philosophy of Science*. Chicago: University of Chicago Press. Republished, 1938, as *Encyclopedia of Unified Science*.
- . 1937a. "Physikalismus und Erkenntnisforschung. Bemerkungen au Ake Petzell: Methodenproblem der Erkenntnisforschung." *Theoria* 2: 97–105.
- . 1937b. "Unified science and its encyclopedia." *Philosophy of Science* 4: 265–77.
- Nordenstam, Tore. 1972. *Empiricism and the Analytic-Synthetic Distinction*. Oslo: University of Oslo Press.
- Ofstad, Harald. 1951. "Objectivity of norms and value judgments according to recent Scandinavian philosophy." *Philosophy and Phenomenological Research* 12: 42–68.
- Ogden, C. K., and I. A. Richards. 1946. *The Meaning of Meaning*. New York: Harcourt, Brace and World.
- Österberg, Dag. 1962. "We know that norms cannot be true or false: Critical comments on Arne Naess' 'Do we know that norms cannot be true or false?'" *Theoria* 28: 200–204.
- Peirce, Charles. 1931. *Collected Papers*, 8 vols. Cambridge: Harvard University Press.
- Piaget, Jean. 1953. *Logic and Psychology*. Manchester, UK: Manchester University Press.
- Rescher, Nicholas. 1980. *Scepticism: A Critical Reappraisal*. Oxford: Blackwell.
- Revie, Virgil A. 1948. *The Measurement of Personal and Interpersonal Vagueness in the Use of Words*, Ph.D. diss. University of California, Berkeley.
- Richter, Raoul H. M. 1908. *Der Skeptizismus in der Philosophie*, vol. 2. Leipzig: Verlag der Durrschen Buchhandlung (1904–08).
- Ross, Alf. 1945. "On the logical nature of propositions of value." *Theoria* 11: 172–210.
- . 1953. *Om Ret og Retfærdighed*. Copenhagen.
- Russell, Bertrand. 1929. "Three ways to the world." In *The World Man Lives In*, edited by Baker Brownell. New York: Van Nordstrom.
- . 1948. *Human Knowledge: Its Scope and Limits*. London: Allen and Unwin.
- Salmon, Wesley. 1954. "Pragmatic justification for induction." In *Problems of Analysis*, edited by Max Black. London: Greenwood.

REFERENCES

- Schächter, Josef. 1973. *Prolegomena zu einer kritischen Grammatik* (Prolegomena to critical grammar), translated by J. F. Staal. Dordrecht and Boston: Reidel.
- Sextus Empiricus. 1933. *Outlines of Pyrrhonism*, translated by R. G. Bury. London: Loeb Classic Library, Heinemann.
- Sidgwick, Henry. 1874. *The Methods of Ethics*. London: Macmillan (7th ed., 1907).
- Simmel, Georg. 1950. *Hauptprobleme der Philosophie*, 7th ed. Berlin: Göschen Ausgabe.
- Spinoza, Benedictus de. 1963. *Ethics*. London and New York: Dent and Dutton.
- Stevenson, Charles L. 1944. *Language and Ethics*. New Haven: Yale University Press (London: Oxford University Press).
- Suzuki, D. T. 1963. *Outlines of Mahāyāna Buddhism*. New York: Schocken Books.
- Tønnessen, Herman. 1980. *Problems of Knowledge*. Assen: Gorcum.
- Walker, Leslie J. 1910. *Theories of Knowledge: Absolutism, Pragmatism, Realism*. London and New York: Longmans, Green.
- Windelband, Wilhelm. 1914. *Einleitung in die Philosophie* (Introduction to philosophy). Tübingen: Mohr.
- Wittgenstein, Ludwig. 1922. *Tractatus logico-philosophicus*, translated by D. F. Pears and B. F. McGuinness. London: Kegan Paul, Trench and Treubner.
- . 1953. *Philosophical Investigations*, translated by G. E. M. Anscombe. Oxford: Blackwell.
- Zappfe, P. W. 1941. *Om det Tragiske* (On the tragic). Oslo: Gyldendal.

Index

- a posteriori argumentation, 293–94
- a posteriori questions leading us to empirical research, 311–12
- a priori arguments, 293–94
- a priorism incompatible with empiricism, 304–05
- Abe, Masao, 334
- absolute formulations, 8–9
- absolutes, belief in, 15, 16
- absolutism, 188, 210, 305, 306
- action
 - absolutist requirements of ground for, 130–32
 - how strongly normative insights should motivate, 303–04
 - moral vs. beautiful, 284
- agreement and disagreement analysis, 66
- agreement and pseudoagreement, analysis of, 82–85
- Aitken, Robert, 360n6
- analytic/synthetic distinction, 70–71
 - See also* possibility, logical vs. empirical
- analytoform, 71
- antimetaphysical and ametaphysical attitudes, 191–92, 207, 212
- apodictic evidence. *See under* evidence
- argumentation
 - a posteriori, 293–94
 - “deep and open” approach to, 80
 - See also* clarification and assessment game
- argumentation analysis, 80–81
- argumentational synonymity, 54–55
- argument(s)
 - a priori, 293–94
 - imaginary planet with no, 309
 - not good enough, 131
- Aristotle, 133, 143, 270, 298, 299, 317
- “assumptionism,” 102
- assumptions, 97–99, 223–26
- Ärman, 336
- Austin, John L., 60
- autonomy, 282
- auxiliary concepts, 193
- Ayer, Alfred J., 119, 217–60
- Ballungen*, 272
- behaviorism, 189, 196, 208
 - “logical,” 276, 277
- belief, 314
 - natural, 223, 225, 257
 - in science, 215
- “beyond reasonable doubt,” 222
- Black, Max, 310
- Bleuler, Eugen, 195, 354–55n9
- Bridgman, P. W., 167
- Brunswick, Egon, 273, 276–78
- Buddha, everything may become, 334–35
- Buddhaghosa, 338
- Buddhism, 333–40, 359–60nn5–6
- Bühler, Karl, 64, 278
- calculus, 171
 - of propositions, 107
- Carnap, Rudolf, 70, 106, 165, 174–75, 179–82, 269–72, 276, 285, 289
 - changes in his opinions, 163
 - on encyclopedia project, 193–94
 - extensionalist thesis, 56, 57
 - on Heidegger, 271
 - intensionalist thesis, 56–58
 - on language, 171–75
 - on logical equivalence, 26, 28

INDEX

- Carnap, Rudolf (*continued*)
 Naess's interactions with, 268, 270, 276
 personal characteristics, 268
 on physical language, 176–79
 on psychology, 190–91, 208
 on reducibility, 167, 177–79
 “Testability and meaning,” 178, 180, 204–08
See also physicalism
- Carnapian doctrine of syntax of language of
 science, 187
- certainty, 269
See also predictions of experiences of apodictic
 evidence
- chemistry, history of, 212
- choices, correct vs. deep, 345
See also freedom
- Chomsky, Noam, 357n3
- clarification, 202
- clarification and assessment game, options in a,
 81–82, 202
- Climacus, Johannes, 343, 346, 348
- “cognitive heteronym,” 204–05
- cognitivists, 143
- Common Market, 254–56
- common sense, 219–20
 autonomy of, 134
- commonsense (cs-) theories (of truth), 3–4,
 7
- communication, 66
 indirect, 348
 in philosophy, 262–64
- communities, 281–82
See also language community
- Comte, Auguste, 215, 275
- concept formation, 209
- conceptual analysis, 338
- confidence, 140, 222–25
 test of, 17
See also weight expression(s)
- contradiction(s), 111, 112
 law of, 100
 principle of, 107, 109
 “showing,” 73–75
- conventionalism, 102
- creativity and gestalt thinking, 327–31
- cultures. *See* language community
- Darwin, Charles, 89–90
- debate, 199
- decision criteria, 166–67, 191–93
- decisiveness
 requirements for, 130–31
 types of, 131
- declarative sentences, 49, 302–03
- definability, 177–78
See also reducibility
- definiteness of intention, 75, 90, 92–93, 264
 degree of, as factor in argumentation, 86–
 87
 experiment on, 68–69
 measures of, 72
- definiteness of intention analysis, 66
- definitions, 314–15
 operational, 67
- definitoid sentences, 287
- democracy, 226–27
- Descartes, René, 339
- descriptive sentences, 302–03
- designations, 49
- determinism, 248
- dialectic, 199–200
- Diderot, Denis, 273
- difference, 202
 inconceivability of, as condition of acceptance,
 28
See also isomorphism; synonymy
- discrimination, degree of, 86
- discrimination acuity. *See* definiteness of
 intention
- discussing, proposals concerning the technique
 of, 190–92
- discussion, 199
- disjunction
 inclusive vs. exclusive, 34, 35, 37, 38
See also “or”
- dogmatism (and Dogmatists), 125, 129–30, 133,
 135, 142–43, 152–55
 “meaningless,” 267
- dualism, 339–40
- Duhem-Poincaré, 181
See also Mach-Duhem-Poincaré theorem
- Duhem-Poincaré thesis, 183–84
- economics, 254–56
- ecophilosophy and ecosophy, 284–85
- education, Kierkegaard and the values of, 343
 correct vs. deep choices, 345
 the ethical and the inward, 346–47
 to hold true opinions and to “be in truth,”
 345–46

INDEX

- illusion of greatness and unimportance of results, 347–48
 - indirect communication, 348
 - against pretentious and premature systems, 343–44
- ego, 231–36, 336, 359n5
 - See also* self; subject-object dualism
- Einfälle*, 16–17
- either-or, 39, 40, 43
- Elders, Fons, 217–60
- “embryonic” philosophical theories, 62, 66
- empirical approach, 80–81
- empirical attitude, 165–68, 182, 195–96, 199–201
- empirical movement, 198–99, 201, 211–15, 356n16
- empirical semantics, 59, 62, 204–07, 209
 - Empirical Semantics (ES)
 - characterization of, through contrasts, 59–65
 - main fields of research in, 65–66
 - rules or habits, 65
 - synonymity, operations and operationalism, 67–73
 - See also* semantical concepts
- empiricism (vs. antiempiricism), 106, 192, 195–99, 203, 211
 - a priorism incompatible with, 304–05
 - decision criterion, 166–67, 191–93
 - definitions, 198
 - demarcation criteria, 200–201
 - absence of universally valid, 164–68
 - physicalism, 168–71
 - extreme, 106
 - promoting it by unburdening it theoretically, 197–98
 - radical, 207–08
 - See also* logical empiricism
- Encyclopedia of Unified Science* project, 200, 209–11, 272, 273, 276–77
- Carnap on, 193–94
- Neurath and, 180, 192–94, 196, 211, 273, 275
- significance for the empirical movement, 192–97
- entrepreneurial culture, 282
- equivalence, 288
 - strings of, 76, 77
- ethical and the inward, the, 346–47
- ethics, 13, 204, 238, 284
 - See also* “ought”
- Ethics* (Spinoza), 73–78, 87, 275, 276, 286–88, 356n1
- evidence
 - apodictic
 - of ideal laws, 105–13
 - predictions of experiences of, 107–13
 - objective, 5
- evil, problem of, 341
- exclamations, 280
 - sceptical, 129
- exclusive disjunction, 34, 37, 38, 43
- “exclusive or” inferences, 41
- extensional equivalence, expressions of, 76–78
- extensionalist thesis, 56, 57
- fact, 314
 - vs. interpretation, 241–43
 - use of the term, 61, 241–43
- factual question, 316
- fallibilism, 143
- “false.” *See* “true” (and “false”)
- fanaticism, normative objectivism leading to, 305–07
- fear, 224–25
- Feyerabend, Paul, 60
- force, concepts of, 33
- Frank, Philipp, 165, 189, 193, 274
- “free,” 74–75
 - absolute vs. nonabsolute sense of the term, 75
- “free thing,” 74
- freedom of the will, 248
 - See also* choices
- Frege, Gottlob, 98, 267
- Friedman, J., 75
- Fukai, Mr., 322
- Gandhi, Mahatma, 229–31, 264–65, 273
- Gemeinschaft* to *Gesellschaft*, movement from, 281–82
- generalizations, 225
- geometry, 114
 - history, 212
- German culture
 - physicalism, science, and philosophy in, 170
- German metaphysics, 211
- Gleichschaltung*, 145, 155
- God, 287
 - love of, 76–77

INDEX

- Golden Rule, 299, 306
- greatness, illusion of, 347–48
- habits, language as set of, 65
- Hägerström, Axel, 307, 311
- Hamilton, William, 5
- Hartmann, Nicolai, 300–301
- Heidegger, Martin, 269, 271
- Hempel, Carl G., 181, 271–72
- hermeneutical spiral as factor in argumentation, 87–88
- heteromorphic expressions, 28–29
- historiography, history of, 212–13
- Hitschmann, Edward, 266
- Hodgson, Shadworth, 5
- Holleman, Arnold F., 175
- Hollitscher, Walter, 262, 267, 271
- homo liber* (free human being), 74
- homofugal conception of truth, 118
- homofugal expressions, 100, 102, 119, 121
- homopetal conception of truth, 118
- homopetal expressions, 100–102, 119
- Hull, Clark L., 354n5
- humanism, 228
- Hume, David, 228, 258, 308
 - Hume's argument inverted, 308–09
- Hung, Tscha, 267
- Husserl, Edmund, 300, 301, 351–52nn1–6
 - on apodictic evidence of ideal laws, 105–13
 - law of contradiction, 100
 - Logische Untersuchungen*, 100, 105, 106
- hypothesis(es)
 - meaning, 72
 - scientific, 92
 - testability, 59, 69–70
 - working, 97–98
- “I,” 318
 - See also* self
- ideal existences, meeting and grasping, 109–12
- ideal laws, 107–09
- ideale Bedeutungen*, 112–13
- identification. *See* self
- illusion of greatness, 347–48
- impermanence, 333
- inclusive disjunction, 34
 - See also* “or”
- inconsistency, 73–74
- incorrigibility, 132, 157, 226
 - awareness of, 132
- incorrigibility principle, 157
- indecision regarding truth, 137
- individuality, 336
 - See also* self
- induction, principle of, 310
- inference rules, 42
- inochi* (life), 340–42
- intellectuals, 252–53
- intensional concepts, 56–57
- intensionalist thesis, 56–58
- intensity, principle of, 319–25
- interconnectedness (of all things), 223, 231–38
 - See also* subject-object dualism
- Interpretation and Preciseness* (Naess), 56, 209
- intrinsic/intrinsic value, 339–42
- intuition, belief in, 60
- inwardness, 347–48
- Irrefutability of Knowledge, The, 141
- isomorphical N-synonymity, 29–31
- isomorphism
 - intentional, 28–32, 47
 - logical, 47
- isothernia, 132
- James, William, 76, 276
- Jaspers, Karl, 318
- Kant, Immanuel, 283–84
- Kiepert, Ludwig, 100
- Kierkegaard, Søren, 129
 - and the values of education, 343–48
- knowing, 94, 142
 - vs. not knowing, 155–58
- knowledge, 157
 - by acquaintance vs. description, 91
 - as calcified research, 93–95
 - defined, 121
 - possibility of reaching, 115–23
 - necessary and sufficient conditions of, 116–18
 - problems using the term, 140–41
 - pure theory of, 112
 - truth requirement of, 116, 123
 - used in strict vs. loose sense, 145–51
- knowledge claims, 143–44, 156
 - socially justifiable and unjustifiable, 156–57
- Kolakowski, Leszek, 73
- kuyo* (memorial service), 340–42
- language, 285
 - Carnap's term, 171–74
 - conceptions and models of, 64, 65, 171, 174

INDEX

- importance for philosophy, 267
- of science, 172–75, 187
- as system of rules, 65, 171–76
- See also* spontaneous experience
- language community/language system, 144–53
- Language and Ethics* (Stevenson), 204
- Le Roy, Edouard, 4–5
- Lebens- und Weltauffassung*, 281, 285, 286
- Leroux, Emmanuel, 3, 4
- liber* (free), 74
- life, intrinsic value of, 340–41
- Life and World Until Now*, status of basic views on, 281
- Linsky, Leonard, 69
- linguistic community. *See* language community
- logic
 - formal, 80, 107
 - has empirical components and needs empirical research, 79
 - meta-logical and object-logical verbalized tasks, 34–35
 - “natural history” of, 33–34
 - use of and talk about, 34–35
- logical empiricism, 164
 - Austrian culture and, 274
 - Brunswick on, 273
 - and the encyclopedia, 211
 - history, 163, 272, 274
 - See also* empiricism
- logical empiricists, 59–60, 64, 165, 203, 277, 278, 356n1, 357n3
 - language, semantics, and, 204, 214, 269–70
- logical equivalence, 26–28
 - defined, 26
 - See also* synonymy
- logico-empirical/logical-empiricist orientation, 165, 211
 - See also* logical empiricism
- Loomis, Frederic B., 90
- Løvestad, Ludvig, 70–71
- Mach, Ernst, 33, 189, 272
- Mach-Duhem-Poincaré theorem, 74, 289
 - See also* Duhem-Poincaré thesis
- Malcolm, Norman, 60
- Malinowski, Bronislaw, 64, 267, 276
- Marhenke, Paul, 3, 4
- materialism, 186
- materialists, 169
- Mates, Benson, 23–26, 28
- mathematics, 108, 114, 212, 264, 347
- meaning, 72, 201
 - nearness of (*see* extensional equivalence)
 - sameness of (*see* isomorphism)
 - of statements, determining, 181–84
 - See also* empirical semantics
- meaning hypothesis, 72
- meaning-distance, 24–25
 - See also* synonymy
- mechanics, 33
- “mental-corporeal” contrariety, 208
- Merzel, D. G., 359n5
- meta-logical approach, 34–35
- metaoccurrence analysis, 66, 72, 73
- metaphysics, 164–65, 170, 180, 185, 191, 199, 206–07, 236–37
 - morality and, 238
- metaquestionnaires, 56
- models
 - vs. systems, 186–88, 192
 - of thought, 189
- moral vs. beautiful action, 284
- morality
 - metaphysics and, 238
 - See also* ethics
- Morris, Charles W., 60, 204, 269, 273
- Naess, Arne, 144, 208, 266, 311, 317, 355nn11–13
 - Ayer on, 219
- Nara, Yasuaki, 334, 337–41
- natural belief, 223, 225, 257
- “necessarily,” 89
- Neurath, Otto, 70, 117, 165, 200, 207, 268, 272–74, 276
 - attitude toward philosophy, 211
 - and the encyclopedia, 180, 192–94, 196, 211, 273, 275
 - physicalism and, 168–69, 184, 185, 190–92
 - on psychology, 190–91, 208
 - on space and time, 184–85, 191
- neurophysiology, 181
- Nietzsche, Friedrich Wilhelm, 210
- nihilism, 302
- nirvana*, 336, 360n6
- nonviolence, 229–30, 248–49, 273, 340–41
- Nordenstam, Åke, 70
- norm sentences, 280
 - are meaningless and cannot be true or false, 297
 - counterargument, 297–98
- normative insights, motivating action, 303–04

INDEX

- normative knowledge, ontological argument
 - against, 298, 301–07
 - counterargument, 298–301
- normative objectivism, leading to fanaticism, 305–07
- norms, 231, 293, 294, 309, 321
 - are not propositions, 295
 - two counterarguments, 295–97
 - as being true or false, 313–18
 - as descriptions, 301–03
 - disagreement about, 307–08
 - doctrine that they cannot be true or false, 294–95
 - how to verify, 307–08
 - verification of, as problematic, 307–08
- numerical set, 173
- objective evidence, 5
- objectivism, normative, 305–07
- object-logical approach, 34, 35
- occurrence analysis, 65, 72, 73
- Ofstad, Harald, 302
- Ogden, C. K., 275–76
- oneness. *See* interconnectedness
- ontology, 102, 316
- openness of the mind, 144
- operationalism and operational view, 167, 208
 - See also under* Empirical Semantics
- “or,” 34–35
 - questionnaire study of the use of, 37–39
 - results, 39–43
 - and sentential connectives V and A of symbolic logic systems, 35–37
- Ordinary Language movement, 60
- Österberg, Dag, 315–18
- “ought,” 317–18
- pacifism, 249
 - See also* nonviolence
- pain. *See* suffering
- performative and nonperformative functions, 61
- permanence, 333
- “person,” 336
- phenomenology, pure, 111, 114
- philosophical systems, 134–36
- philosophical texts, analysis of, 268–69
- philosophies, 137
- philosophy
 - definitions and conceptions of, 211, 217–18, 257
 - terminology, 262
- physical language (Carnap’s term), 176–78
- physicalism, 174, 184, 187, 203, 210
 - Carnap and Neurath’s demarcation criteria and, 168–71
 - formulations of, 177, 179–80
 - Neurath’s definition of, 185
 - and proposals concerning the technique of discussing, 190–92
 - psychology and, 181, 188, 189
- “Physicalism and radical empiricism” (Neurath), 207–08
- physicalist language, 177
- physicalist thesis, evaluation of, 188
- physicalization, 182
- physicists, 169
- physics, 33, 169, 186, 189
- physiology, 181, 182
- Platonism, 300, 317
- plausibility, assessment of, 74
- politics (and philosophy), 226–30, 243–44, 253–56
- Popper, Karl, 60, 69, 168, 264
- positivism, 164, 206, 275
 - logical, 201
 - See also* empiricism
- possibility, logical vs. empirical, 223–24, 316–17
 - See also* analytic/synthetic distinction
- postulates, 128, 134
- power, 76, 77
- pragmatics, 56–57, 60, 269, 276
- precization, 68
- predictions of experiences of apodictic evidence, 107–13
- presumptions, 99
- presuppositions, 223
 - See also* assumptions
- pro-argument, 87
- probability. *See* confidence; weight expression(s)
- “probable,” use of the term, 61
- Problem of Knowledge, The* (Ayer), 219
- proof, 11, 99, 108
- propositional calculus, 107
- propositions, 296, 314
 - calculus of, 107
- pseudoagreement analysis, 67–68
- pseudoagreement and pseudodisagreement, 85
- psychoanalysis, 189, 266, 269
- psychologism, 106, 190, 208
 - criticisms of, 106–07, 109, 113, 203–04
 - defined, 106
- psychology, 187–88, 196–97, 202
 - Carnap and Neurath on, 190–91, 208

INDEX

- reification of theoretical constructs in, 189–90
- schools of, 189, 196, 276
- Pyrrhonism, 136–37
 - postulates, 128
 - relevance of systems to, 134–36
- Pyrrhonist(s), 136–37
 - and absolutist requirements of ground for action, 130–32
 - open to debate about presuppositions, 133–34
 - may be attracted to certain (dogmatic) philosophies, 128
 - “no decisive arguments,” 128–30
 - who does not admit Pyrrhonism, 126–28
- “questionnaire-heteronymous,” 29
- questionnaires (Qs), 14
 - about people’s truth theories, 7–20
 - defined, 46
 - level of directness, 49
 - misconceptions regarding, 46
 - necessary and sufficient conditions of knowledge, 116–20
 - as object-logical, 35
 - See also* isomorphism; logical equivalence; synonymity questionnaires
- questions, crucial, 49
- Quine, Willard, 272, 274
- Rand, Rose, 266–67
- Randers, Meadows and Jørgen, 283
- reality, truth as agreement with, 12, 13, 62
- reason, living according to, 74
- reasonable doubt, 222
- reasonableness, 220
- reconstructions, 75, 77, 78, 120
- reducibility, 167, 177–79, 185
 - of sentences, 178, 191
 - types of, 178, 179
- regularities, 173
- Reichenbach, Hans, 277–78
- relational real agreements and disagreements, 85
- Rescher, Nicholas
 - answer to his reappraisal of scepticism, 141–45, 153, 155–58
- research, 213–14, 279–81
 - empirical
 - a posteriori questions leading us to, 311–12
 - logic needs, 79
 - enthusiasm for, 214
 - knowledge as calcified, 93–95
 - results, unimportance of, 347–48
 - retroactive effect, 87
- Revie, Virgil A., 51–52
- Richards, I. A., 275–76
- Ross, Alf, 303–07, 358n1
- rules, 174–75
 - implicit vs. explicitly formulated, 172–73
- Russell, Bertrand, 266, 275, 276, 314
- Ryle, Gile, 249
- Sachverhalt (wirklich vor Augen)*, 110–12
- satori*, 360n6
- “sceptical utterances,” 129
- scepticism, 121, 123, 226–28, 258
 - age, gender, education, and, 15–16
 - logic of knowledge leads to, 141–45
 - trust, fear, and, 224–25
- Scepticism* (Rescher), 141–45, 153, 156, 157
- sceptics, 15, 218–19, 353nn5–6
 - Academic vs. Pyrrhonic, 139–40, 142, 147, 154
 - See also* Pyrrhonism
 - sloppy-talking, 151–53
- Schächter, Joseph, 266, 267, 271, 356–57n2
- Schlick, Moritz, 201, 261, 264–66, 268, 274, 275
- science(s), 94–95, 108–9, 111
 - autonomy, 134
 - basic norms and nonnormative assumptions, 309–12
 - belief in, 215
 - classification, 215
 - enthusiasm for research or, 214
 - language of, 172, 187
 - “all terms of the language of science,” 173–75
 - philosophy and, 170
 - sociology of, 186, 188
 - terms of, 175
 - unity/unification of, 188, 190, 194–95, 210, 275
 - cannibalism and, 189
 - See also Encyclopedia for Unified Science*
 - project
- scientific classification, system of, 215
- scientific hypothesis, 92
 - See also* hypothesis(es)
- scientific knowledge, 94
 - as hypothetical, 94
- scientific writings, weight expressions in, 95–101

INDEX

- scientism, 164
- self, 231–38, 318, 333–34, 336
- self-object dualism. *See* subject-object dualism
- Self-realization, *anattavada* and, 333–36
- selves as processes, 335–37
- semantical concepts, 56–57
 - See also* empirical semantics
- sentences
 - declarative, 49, 302–03
 - definitoid, 287
 - descriptive, 302–03
 - logical analysis vs. behavioristic description of
 - functioning of, 183
 - reducibility, 178, 191
 - that-sentences, 263
 - See also* meaning, of statements; norm sentences
- Sextus Empiricus, 149, 151, 153, 157–58, 353nn3–7
 - criticisms of, 129
 - on mathematics and logic, 143–44
 - on scepticism and Pyrrhonism, 125, 127–31, 135, 139–40, 142, 151, 152, 353n6
 - terminology, 129
- “shown,” 99
- Sidgwick, Henry, 358n6
- Simmel, Georg, 299, 358n4
- singular reducibility, 178, 179
- Skolem, Thoralf, 264
- S*-notions, 8, 11, 15
- Socrates, 129
- space and time coordinates, specification of
 - does not protect against antiempiricism, 184–85
- Spinoza, Benedict de, 135, 270, 276, 277, 286–88, 290
 - Ethics*, 73–78, 87, 275, 276, 286–88, 356n1
- spontaneous experience, verbal expression of, 327–31
- Steiner, Rudolf, 185
- Stevenson, S. S., 204, 303
- “strictly speaking,” 93
- subject-object dualism, transcending, 337–39
 - See also* interconnectedness
- substitutability, 287
- success, 347–48
- suffering, 338
 - intensity of, 319–25
- suggestibility, test of, 17
- symbolic logic, 106, 206
- symbolic logic systems, sentential connectives
 - V and A of, 35–37
- symbols and symbolization, 174–75, 356nn1–2
- synonymity, 349nn1–2
 - concepts and types of, 23–31
 - See also* under empirical semantics
 - See also* extensional equivalence; isomorphism; questionnaires
- synonymity expressions, 49–55
- “Synonymity” (Mates), 23–24
- synonymity questionnaires, 45–48
 - classification, 49
 - terminology, 48–58
- synonymity requirement, 49–55
- syntax, 174
 - of language of science, 187
 - logical, 171
 - See also* language
- systems, 134–36
 - against pretentious and premature, 343–44
- Tarski, Alfred, 133
 - assertions about *true* and *truth*, 59–60
 - on definition of truth, 25, 59, 69, 289
 - testability of his empirical hypotheses, 69–70
 - truth theory, 270–71, 289, 351n1
- Tarski class, 62
- teamwork, 197
- testability of hypotheses, 59, 69–70
- “Testability and meaning” (Carnap), 178, 180, 204–08
- that-sentences, 263
- “theoretical concept,” 189
- “thing-language,” 176, 177
- time
 - dependence of theses on, 191
 - See also* space and time coordinates
- tolerance, principle of, 60
- Tønnessen, Herman, 60
- torture. *See* suffering
- translatability. *See* reducibility
- translation(s), 71–73, 78
 - indeterminacy of, 72–73
- trivialism, 210, 235
- “true” (and “false”), use of the term(s), 10, 61, 70, 79, 99–100, 116, 132, 270, 296, 297
- true-false questionnaire, 50
- true opinions, holding, 345–46
- true statements, 10, 15, 133
- trust, 224–25

INDEX

- truth, 127
 - absolute, 9, 15, 16, 131
 - being in, 345–46
 - definitions and theories of, 3–9, 25, 70, 133, 220, 296–97, 313–15
 - age, gender, education, and, 15–17
 - agreement with reality, 12, 13, 62
 - and concept of “something human,” 11–12
 - existence of common characteristic, 14–15
 - homofugal vs. homopetal, 118
 - people’s beliefs regarding, 7–20, 62–63, 66
 - problems related to, 21
 - difficulty/impossibility of defining, 14
 - as ethical notion, 13
 - problems using the term, 140–41
 - and similar notions, 8
 - See also* S-notions
 - types of, 12
- truth attitude, 122
- truth-verification notions, 62
- Umgangssprache*, 70
- unity. *See* interconnectedness
- unshakability. *See* incorrigibility
- “valid,” 99
- values, 300, 304
 - all things as having, 339–42
 - in themselves, 339–42
 - See also* education
- Veracity of Knowledge, The, 141
- verbal and nonverbal behavior, 7
- Vienna Circle, 276, 286, 288–89
 - attitude toward research and cooperation within, 279–81
- violence vs. nonviolence, 229–30, 248–49
 - See also* nonviolence
- virtue, 76, 77, 284
- Waismann, Friedrich, 201, 261, 265–66
- Walker, Leslie J., 5
- weight, 91
- weight expression(s)
 - defined, 91, 96
 - historical development of, 94
 - most frequently used, 97
 - pedagogical importance of the study of, 95
 - referring to human activity or experience, 99–101
 - in science, 89–90, 94–95
 - frequency, 96–98
 - how much is known about, 90–93
 - inventory of, 95–96
 - strong vs. weak claims, 98–99
- Wheeler, J. A., 271
- Whitehead, Alfred North, 275
- Wilde, Oscar, 327
- Windelband, Wilhelm, 5–6
- Wissenschaftliche Weltanschauung*, 279, 284
- Wittgenstein, Ludwig, 64, 129, 265–67, 285
- “world of” phrases, 300
- worldview, 279, 284
- Zappfe, P. W., 212
- Zen Buddhism, 338–39
 - See also* Buddhism
- zetetic point, 158
- zetetic sceptics (and scepticism), 127, 144, 146–47, 149, 151–53, 157–58
 - asking for guarantees, 153–55
 - See also* Pyrrhonism
- Zilsel, Edgar, 274, 277

Arne Naess was born in Slemdal, Norway, in 1912. One of Norway's foremost philosophers, known especially for his innovative eco-philosophy, Naess began his work with peace studies, global justice, and human rights, and continued with environmental matters. The subjects of his scholarly work and interests include empirical semantics, logic and foundations of science, communication theory and practice, Spinoza, scepticism, gestalt ontology, and normative systems theory. Naess's contributions have been honored by many awards, including Norway's Peer Gynt Award, Denmark's Sonning Prize, the Nordic Council Award for Nature and Environment, the Uggla Prize for Humanistic Studies from Stockholm University, and the Mahatma Gandhi Prize for Non-violent Peace.

Naess graduated from the University of Oslo in 1933, studied in Paris and Vienna, and became the youngest person appointed to a full professorship of philosophy at the University of Oslo, where he worked from 1939 to 1969. Since 1970, he has continued his work as a philosopher, naturalist, and environmental activist. He has been involved with the University of Oslo's Center for Development and the Environment since 1991. The Arne Naess Chair in Global Justice and the Environment is being established at the university to encourage scholars to engage creatively with Naess's work and ideas, in particular to promote new insights into environmental issues and the challenges posed by globalization, and to develop ideas that will help to humanize the difficult and conflict-laden transition to sustainability. Naess holds honorary doctorates from Stockholm University and The Norwegian National University of Sports and Physical Education. He is also an honorary member of The Norwegian Alpine Club and The Norwegian Tourist Association.

In addition to writing countless articles and essays that have been translated into several languages and have appeared in anthologies and journals throughout the world, Naess is the author of numerous books, including *Life's Philosophy: Reason and Feeling in a Deeper World* and *Ecology, Community and Lifestyle*. He was founder and editor of the journal *Inquiry*, and has lectured in many countries. As a mountaineer, Naess was the first to climb Tirich Mir in Pakistan. In the 1930s, he built a hut on Hallingskarvet Mountain in Norway, where he spent much time reflecting upon and relating to the surroundings and native plants of his retreat. His respect and appreciation for diversity, wonderment, and our relationship to

the natural world has continued throughout his life and is reflected in the spirit of his work.

Naess currently lives in Oslo with his wife, Kit-Fai.

Harold Glasser, Ph.D. is Associate Professor of Environmental Studies at Western Michigan University in Kalamazoo, Michigan. He has been a visiting Senior Fulbright scholar at the Center for Development and Environment and Department of Philosophy, University of Oslo; a Resource Person for the United Nations University–Institute of Advanced Study; a visiting researcher at the International Institute for Applied Systems Analysis; and a lecturer at Schumacher College. He has written on environmental philosophy, policy, and planning, as well as green accounting, education for ecocultural sustainability, and campus sustainability assessment.

Alan R. Drengson, Ph.D. is Emeritus Professor of Philosophy at the University of Victoria, in Victoria BC Canada. He is a former Director of Environmental Studies and is currently an Adjunct Professor of Graduate Studies. He is the author of numerous articles, reviews, and books, as well as the editor of three anthologies and the founding editor of two journals, *The Trumpeter: Journal of Ecosophy* and *Ecoforestry*.

Designed by Tamotsu Yagi Design
Composed by Ralph Fowler and BookMatters in Garamond 3
Printed by Krips, Meppel on Cyclus Offset 90 gr/m²
Bound by Callenbach, Nijkerk in Elite and stamped with Colorit 922

Notes

Chapter 1: The Function of Ideological Convictions

1. It is not necessarily true that “gross slogans and catchwords” are devoid of truth. Under certain conditions they may even be a sign of truth if something is clearly said, easily understandable. There is generally some rather unscientific (often clearly aristocratic) contempt of the truth of mass convictions and mass movements hidden behind the attitude of social scientists toward “gross slogans and catchwords.” Think of Nietzsche, Pareto, Ortega y Gasset! Perhaps at least some of the great teachings of politics and morals can be expressed only in the form of gross slogans and catchwords. Practically all the Ten Commandments belong to the same category. Nevertheless both the sayings of Christ and the Ten Commandments have been used by many persons seeking to avoid action based on misinformation. Yet both contain “solutions” and even scientific insights into the laws of human behavior. (Alexander Szalai)
2. Here the attention of the reader should be called to the fact that the development of a critical attitude *can* lead to unquestioned “ideological convictions.” Naess may be *for* a critical attitude and *against* unquestioned convictions; nevertheless it is a fact that practically *all* the important works of Marx, Engels, Lenin, and Stalin have been conceived and written as explicit criticisms of their opponents’ views. None of these works is “systematic” in the abstract sense of the word; all of them are examples of a critical attitude. Nevertheless they have led millions to “unquestioned ideological convictions.” It may be observed that it was possible to build up Socialism, in the sense of Marx and Lenin, on one sixth of the earth and to develop the most integrated political theory of all times without ever publishing a “textbook, by and large”—*only* publishing innumerable critical essays and books. There exists no such thing as a “textbook of Marxism” written by any established expert. And all real Marxists have built up unshakable convictions (which Naess dislikes) based on criticism that Naess regards as an antidote to unshakable convictions. (Szalai)

3. Naess seems to forget that the kind of pseudoknowledge that he rightly condemns is definitely not the consequence of a lack of real knowledge. Lack of knowledge does not lead in itself to aggressiveness. Pseudoscientific, theological, and other harmful ideologies are based on very realistic interests of ruling and exploiting classes. It is these class interests that account for their aggressiveness. Obviously, therefore, the dangers of pseudoknowledge cannot be liquidated solely by action on the level of scientific theory. Good textbooks on the comparative biology of human races are not sufficient weapons against Negro lynchers or Jew baiters. (Szalai)
4. This hint at an antithesis seems to me to miss an important point: “the liquidation of pseudoknowledge” cannot occur unless something *positive*, something that feels (to the thinker) like “new knowledge” (an addition to his means of dealing with insecurity) is there to take the place of the former concepts that have ceased to serve their purpose adequately.

It may be that there are two tendencies in social science: the one roots out error, the other regards an appreciation of the place of “error” in the mind of the “erroneous thinker” as one of the preconditions of satisfactory—i.e., objective—research. It is probably true that the largest contribution of social science in this century is the “liquidation of pseudoknowledge” in the sense that there is much written in that vein, but it is doubtful whether the statement would hold if “largest” means that which takes most factors into its scope. (John Rickman)
5. Naess proposes in these last paragraphs that generals of armies fighting against each other should accept the following “working hypothesis”: “Maybe the enemy is stronger. Maybe he is right in his war aims. Maybe it is not worthwhile at all to fight.” *If* Naess can convince all generals of fighting armies to accept this “working hypothesis” or if he can see to it that only people holding this “working hypothesis” become generals—then, of course, there will be no more wars. But is it not a somewhat abstrusely idealistic *petitio principii* to make such a proposition to generals? And is it not an evasion of the real issue? It would be easy to construct simpler, more probable, but *still* unrealizable utopian suggestions! (Szalai)
6. To be quite sincere, there is probably no known definition of social science to which this alleged “by definition” characteristic of Naess would fit. Is there *any* science at all that would have nothing to say about deliberately posed value judgments? (Szalai)
7. If Naess puts such different things together as the defense of “Marxism, Leninism, fascism, anti-Semitism,” then why not put together the defense of “goodness of heart, mother’s love, sympathy, prostitution, cruelty against children, murder”? It will be seen later in this chapter that Naess becomes increasingly unable to write down the word *communism* without associating it

with “fascism.” That is exactly the neurosis all imperialistic warmongers are trying to spread in the world. No such neurosis ever existed in the conference room of UNESCO where this symposium was conducted. (Szalai)

8. Naess’s list of “keywords having important functions in ideological controversies and crusades” is not inclusive. He could have written out the whole of Webster’s dictionary since there is no word at all that could not figure in them. The fact that he includes in *his* selection communism *and* Nazism, planned society *and* Nordic way of life, shows only that he himself has become a prisoner of “keywords.” (Szalai)
9. To call the punishment of quislings an “aggressive treatment” seems to be a rather jocular exaggeration of liberalism. And a very bad joke too! It reminds one of the anecdote about the doctor who did not use his rifle against the attacking tiger because “He is a human being after all, isn’t he?” (Szalai)
10. Every fight is a fight *against* something rather than *for* something. Or else there is no fight at all. To put it more correctly, there is a dialectical synthesis of “for” and “against” in *every* fight. (Szalai)
11. Again Naess is a victim of the verbal obsession that the word *communist* cannot be written down without adding “and fascist.” I may take this opportunity to point out that, although “communist” and “fascist” are antitheses, “democratic” and “dictatorial” are *not*. Bourgeois democracy means dictatorship of the possessing class, i.e., the bourgeoisie. In a modern capitalist society only the possessing class can make full use of the “freedoms.” And exclusive freedom for a class means nothing but dictatorship by the same class. Everybody has the right to found a newspaper in the United States—but how many people have the dollars for such an investment? Or, as Anatole France has formulated it, “There is full equality in France. . . . Rich and poor people have got the right to sleep on the benches on the Seine embankment.” Marxist-Leninists are much more sincere than the theoreticians of bourgeois democracy when they declare openly that up to the point where all classes are liquidated, proletarian democracy means dictatorship of the proletariat. No equal rights for everybody can be realized without equal material possibilities for everybody to make use of these rights! (Szalai)
12. What is meant here by *trivialization*? Why does it trivialize the issue in philosophical discussions if one shows that “narrow conflicts of interest,” i.e., class conflicts, are to be found at their roots? This makes them even more serious! Has anybody ever heard of a discussion becoming less violent, less hostile if somebody “trivialized the issue” by showing that elementary material interests of the disputing partners are involved? (Szalai)
13. This statement seems to me to accord more with the aspirations of textbook writers than the experiences of a textbook reader. As an ex-schoolboy—

perhaps the experience is widely shared—I can say that a textbook had less influence than the person who recommended it in class to our attention. When we thought our history teacher an ass, we did not usually cherish the views of the historians he commended; when we thought well of him, we joined in his appreciation of his own masters and absorbed what they had to say.

And surely also to give so much value to textbooks is to underestimate the importance of preschool experience in the development of the personality and the capacity to join with others in cooperative enterprises. This isn't a new theory. When the Jesuits said "Give us a boy until he is seven and you can do what you like with him afterwards," they weren't thinking of textbooks. (Rickman)

14. Except for the work of some anthropologists, notably the Cross Cultural Survey developed under the direction of George P. Murdoch of Yale University, little effort has been spent on the search for the common ground of mankind. Up to now research has usually emphasized differences. A vast project of investigation, absolutely basic to the interests of peace and to the success of the United Nations, is the preparation of an *encyclopedia of the uniformities and similarities* in respect to aspirations, beliefs, and practices of all peoples. (G. W. Allport in *Journal of Social Issues* 1950, 4: 30)
15. "Even in Nazism!" What a fine liberal point of view regarding the "final" aims of Nazism! If Naess is right, it is a pity that the Nazis have not succeeded in exterminating *all* inferior races. Then a situation would have been reached where the organized infliction of pain is used only as part of "sport activities." It must be sincerely said that such sentences as this last one of Naess would be regarded in many countries as a cynical contempt of the feelings of millions of widows and orphans who owe the ruin of their lives to Nazism. Admittedly, Naess had no such thing as cynicism in mind. But benevolence alone does not seem to be sufficient. (Szalai)
16. If that were really all that can be expected from social scientists, then we should pose the famous question of Lynd: "knowledge for what?" And give the answer he has given! (Szalai)
17. The analysis offered by Naess seems to me wise and helpful. As he insists, there are no simple causes of national aggressiveness. But, also as he insists, a rigid ideology, supporting prefabricated notions of means-end relationships, can be a vastly important source of mischief. In my own chapter in this volume I make the same point in terms of people's expectancies regarding the inevitability of conflict. When such expectancies exist, induced often by ideologies, aggression readily ensues.

Naess notes the danger of relativism inherent in his position. I think he worries needlessly about the matter. For he himself clearly shows there is no

basic incompatibility between single-minded devotion to a value or to an ideal and criticalness—even scepticism—regarding ideological formulations of the ideal in question. To strive ceaselessly for ethically approved goals is essential to a healthy development of personality, but to be flexible and experimental in respect to means and formulas is equally hygienic for the individual, and of course necessary for favorable human relationships.

Perhaps Naess is too pessimistic in his view that the function of social science at the present time may be primarily *negative*, that is, to liquidate pseudoknowledge, to debunk overrigid ideologies and their attendant preconceived solutions. He underestimates, I think, the *positive* contribution that social science can now make to the discovery of common purposes and to the fashioning of peaceful means-end procedures for the attainment of these purposes. (Allport)

18. The most important aspect of Naess's discussion is, I think, his characterization of what might be called, in a somewhat different terminology, the danger of paranoid patterns of thinking. The diffusion of this pattern can be observed throughout contemporary society and it is by no means limited to any particular ideology. Even theories that are basically true may assume paranoid functions if they are accepted rigidly and mechanically and not subjected to a life-process of continuous thought and open-minded experience. To look for the *formal* constituents of "stereopathic" thinking rather than to limit the investigation to any specific ideological content is, in my opinion, a very productive approach to our problem. Moreover, I should like to underscore his emphasis on the means-end relationship, particularly his formulation of how the increase in the means of production in Western society has tended to deflect attention from ultimate ends. This certainly defines a highly critical area of modern culture. I fully agree with most of his suggestions, especially with those on the function of ideologies. The following remarks are motivated by the idea that even exact science has to be careful not to become transformed into "scientivism" and thus fall under the category of dogmas and panaceas that Naess justifiably criticizes.

It seems to me that Naess is so strongly influenced by certain epistemological controversies of a logical and semantic nature that he therefore tends to give too much weight to purely logical deficiencies in the present-day thinking of the masses. The impression is sometimes created that certain practices in the fields of philosophy and social science, such as the "quest for absolute certainty," are directly responsible for the rigidity and standardization of modern ideology. Although an interrelationship no doubt exists, I should not hold departmentalized institutions of learning responsible for deformities that may well be the product of much more fundamental structures of our culture.

The constant warning against premature conclusions and foggy generalities implies, unless properly qualified, a possible taboo against all thinking. If every thought has to be held in abeyance until it has been completely corroborated, no basic approach seems possible and we would limit ourselves to the level of mere symptoms. This may even jeopardize the very ideological objectivity postulated in the article. The appeal to scientists to foster a critical attitude toward general solutions could easily be misinterpreted in the sense of a critique concerned merely with certain undesirable manifestations of our civilization rather than with the forces, inherent in its total structure, that produce such manifestations. In other words, too much scientific self-control may involve a definite political philosophy, a kind of easygoing "academic" approach. This is certainly not the aim of Naess's suggestions.

The latter point is reflected in a somewhat too benign evaluation of the destructive forces bred by the present situation. The assertion that "the daily observation that human beings do not intentionally make each other suffer prolonged pain except in very limited kinds of situations in which they think it necessary for self-preservation, or in which they react to frustrations of such intensity that we may class them as highly abnormal" is hard to reconcile with the world of concentration camps. The torturers did not act for the sake of self-preservation nor were they subject to "highly abnormal" frustrations. No approach to group tensions can get at the core of the matter unless it is constantly aware of what happened to millions of Europeans. A formulation of the problem that regards events of this scope as mere exceptions would no longer be realistic.

I fully agree with Naess that it is erroneous and reactionary to blame the scientific spirit, "scepticism and relativism" for the crisis of modern civilization. However, by limiting the scientific spirit to the cool head and surrendering the ultimate values to the warm heart, he establishes a division that in my opinion is as pernicious to the concept of truth as it is to the humanistic ideas that guide him. If this division were maintained, we should either have two kinds of truths torn asunder in medieval fashion—or the concept of truth itself would be sacrificed. The ultimate values would be a matter of arbitrary choice; those who would reject the idea of the humane altogether would be on as safe ground philosophically as their opponents—which would in turn substantiate the very charge of nihilism against which Naess defends the scientific spirit. I believe he has outlined the real task by asking, How can the division between means and ends be overcome rationally rather than perpetuated philosophically? (Max Horkheimer)

Chapter 2: Analytical Survey of Agreements and Disagreements

Unless otherwise indicated, the notes in this chapter reference sections or pages of *Tensions That Cause Wars* (Common statement and individual papers by a group of social scientists brought together by UNESCO), edited by H. Cantril (Urbana: University of Illinois Press, 1950).

1. See appendix I, pp. 513–21.
2. P. 89.
3. P. 69.
4. P. 164.
5. P. 147.
6. P. 95.
7. P. 195.
8. P. 303.
9. P. 80.
10. P. 112.
11. P. 297.
12. See Horvath, p. 95; Lefebvre, p. 147; Plamenatz, pp. 303–05.
13. P. 164.
14. Pp. 111–12.
15. Pp. 367–68.
16. Pp. 96–99.
17. P. 80.
18. Pp. 365–66.
19. Pp. 1–2.
20. Pp. 120–21.
21. Pp. 172–73.
22. Pp. 295–96.
23. P. 330.
24. P. 361.
25. P. 391.
26. In a section not included in *Tensions That Cause Wars*.
27. Pp. 196–98.

NOTES TO PAGES 41–48

28. P. 364.
29. Pp. 47 ff.
30. P. 364.
31. P. 112.
32. Pp. 48–49.
33. P. 69.
34. Pp. 106–10.
35. P. 165.
36. P. 69.
37. Pp. 48–49.
38. Pp. 109–10.
39. P. 165.
40. Pp. 221–22.
41. P. 295.
42. P. 330.
43. P. 364.
44. The general problem of persuasive use of key terms is discussed in Stevenson (1944); see also Perelman (1946). Results of psychological experiments on persuasive use of keywords are found in Hartmann (1936: 336–57); Sherif (1937: 450–61); and Doob (1948).
45. Pp. 109–10.
46. P. 132.
47. P. 147.
48. P. 198.
49. P. 295.
50. P. 330.
51. More explicitly so in answers not included in *Tensions That Cause Wars*.
52. Question 7; see p. 516.
53. P. 71.
54. P. 98.
55. In a section not printed in *Tensions That Cause Wars*.
56. P. 199.
57. All these longer historical studies are included in *Tensions That Cause Wars*.

58. Question 4; p. 515.
59. Pp. 364–65.
60. Pp. 178–81.
61. P. 198.
62. P. 264.
63. Pp. 304–06.
64. Pp. 391–93.
65. Pp. 331–46.
66. Question 6; see p. 516.
67. Bober, in an answer not included in *Tensions That Cause Wars*.
68. P. 166.
69. P. 123.
70. P. 199.
71. Pp. 246–51.
72. Pp. 95–98.
73. In answers not included in *Tensions That Cause Wars*.
74. See pp. 516–19.
75. Pp. 519–20.
76. Question 8; p. 516.
77. P. 166.
78. P. 379.
79. See, for example, Zaslavski (1947).
80. Question 9; see p. 516.
81. P. 367.
82. In answers not included in *Tensions That Cause Wars*.
83. P. 297.
84. P. 579.
85. P. 166.
86. Pp. 283–84.
87. Pp. 393–94.
88. In a passage not included in *Tensions That Cause Wars*.
89. Pp. 200–02.
90. Pp. 367–68.

NOTES TO PAGES 56–67

- 91. This survey, part B, sec. IV.
- 92. Question 11; see pp. 516–18.
- 93. P. 71.
- 94. P. 396.
- 95. P. 167.
- 96. P. 112.
- 97. P. 102.
- 98. P. 188.
- 99. P. 264.
- 100. P. 396.
- 101. P. 264.
- 102. In question 11, the word *results* was used; “contents” covers more adequately what we had in mind; see p. 517.
- 103. Opinions on the methods-contents distinction were urged in question 16; see pp. 517–18.
- 104. A distinction particularly elaborated by Juan Zaragüeta along traditional Catholic lines.
- 105. A list of meanings is given by Field, p. 84.
- 106. Questions 12 and 13; see p. 517.
- 107. P. 167.
- 108. See final paragraph of the questionnaire, p. 521.
- 109. P. 415.
- 110. P. 152.
- 111. Pp. 150–51.
- 112. Pp. 432–40.
- 113. Pp. 1–12, 16.
- 114. P. 72.
- 115. Pp. 173–77.
- 116. Pp. 201–02.
- 117. Pp. 287–92.
- 118. Pp. 315–21.
- 119. Pp. 345–53.
- 120. Question 10; see p. 516.
- 121. P. 43.

NOTES TO PAGES 67–78

- 122. P. 200.
- 123. Pp. 258–59.
- 124. Pp. 340–44.
- 125. P. 379.
- 126. Pp. 394–95.
- 127. In comments not printed in *Tensions That Cause Wars*.
- 128. Pp. 412–13.
- 129. In answers not printed in *Tensions That Cause Wars*.
- 130. Pp. 152–54.
- 131. Pp. 356–57.
- 132. P. 379.
- 133. P. 388.
- 134. P. 43.
- 135. Pp. 203, 204.
- 136. Pp. 406–07.
- 137. Pp. 416–17.
- 138. See also Sweezy's replies, pp. 410 ff.
- 139. See Marshall, pp. 216 ff.; Pool, pp. 347 ff.
- 140. Question 19; p. 518.
- 141. Pp. 73–74.
- 142. In answers not included in *Tensions That Cause Wars*.
- 143. Pp. 73–74.
- 144. Question 20; see pp. 518–19.
- 145. Pp. 350–51.
- 146. Pp. 372–75.
- 147. P. 208.
- 148. P. 401.
- 149. P. 104.
- 150. P. 13.
- 151. Pp. 156–57.
- 152. Pp. 359–60.
- 153. Pp. 113–14.
- 154. P. 170.

NOTES TO PAGES 78–83

- 155. P. 293.
- 156. Pp. 325–26.
- 157. Pp. 445–46.
- 158. Pp. 105–06.
- 159. P. 114.
- 160. P. 209.
- 161. P. 350.
- 162. P. 193.
- 163. P. 300.
- 164. P. 14.
- 165. Pp. 156–59.
- 166. Pp. 358–59.
- 167. Pp. 105–06.
- 168. P. 114.
- 169. Pp. 404, 411.
- 170. Kelsen (1929).
- 171. Question 26; see p. 520.
- 172. Pp. 114–18.
- 173. In answers not included in *Tensions That Cause Wars*; cf. p. 446.
- 174. P. 404.
- 175. In Ducasse's comments, pp. 406–07.
- 176. See Field's comments, pp. 416–17.
- 177. In comments not included in *Tensions That Cause Wars*.
- 178. In answers not included in *Tensions That Cause Wars*.
- 179. Question 30; see p. 521.
- 180. P. 17.
- 181. In an answer not included in *Tensions That Cause Wars*.
- 182. P. 105.
- 183. Pp. 118–19.
- 184. Pp. 211–12.
- 185. In an answer not included in *Tensions That Cause Wars*.
- 186. P. 405.
- 187. Pp. 436–37.

- 188. P. 405.
- 189. Pp. 406–07.
- 190. Pp. 416–17.
- 191. Question 29; see p. 521.
- 192. P. 301.
- 193. In an answer not included in *Tensions That Cause Wars*.
- 194. In an answer not included in *Tensions That Cause Wars*.

Chapter 3: Ideology and Rationality

- 1. The terrifying aspect of a small number of ideologies in Europe in the period 1920–1950 previously led me to underestimate the varieties of nonabsolutist ideologies in the world. Therefore, I treated as *fairly general* those negative features of ideologies that I would now regard as exceptional, e.g., “claims on finality and certainty” and “distorted outgroup descriptions.” See my “Function of Ideological Convictions,” in Cantril (1950: 295). [Reprinted as the first article in this volume; see pp. 3–27.]
- 2. By Charles Bettelheim, M. M. Bober, G. A. Borgese, D. van Dantzig, John Dewey, C. J. Ducasse, G. C. Field, Risieri Frondizi, Barna Horvath, Jørgen Jørgensen, Humayun Kabir, Horace M. Kallen, Henri Lefebvre, C. I. Lewis, Lord Lindsay of Birker, J. H. A. Logemann, Richard McKeon, James Marshall, Emmanuel Mounier, Stanislaus Ossowski, Umberto A. Padovani, Ricardo R. Pascual, Aimé Patri, Chaim Perelman, John Petrov Plamenatz, Ithiel de Sola Pool, Ladislaus Rieger, Wilhelm Röpke, Alf Ross, Rudolf Schlesinger, Paul M. Sweezy, Eric Weil, and Quincy Wright. See McKeon and Rokkan (1951).

Chapter 4: Science as Behavior: Prospects and Limitations of a Behavioral Metascience

- 1. To the above list of works, I should like to add some important ones that either explicitly discuss the possibilities of a behavioral science of science or are pertinent without explicit reference to our theme: Allport (1955), Bruner (1956), Geach (1957), Koch (1959), Kuhn (1962), Lewin (1952), Nagel (1961), Oakshott (1951), Parsons (1949), Polanyi (1958), Popper (1945, 1957), Ryle (1949), Weber (1922), Winch (1958).
- 2. It is, of course, open to doubt whether any author, past or present, is in possession of a total view actually covering all science, and not merely of vivid intentional experiences within which there is nothing that calls for a halt—

for exceptions, restrictions, qualifications. I shall, for simplicity, ignore the distinction between a total view and an intentional experience covering a totality.

3. An inspection of recent volumes of the *Psychological Bulletin* reveals the great impact of the rigorous methodologists and system builders. The superiority of behaviorism (identified with the model stimulus-response correlation) to field psychology (response-response correlation) as argued by Burns (1960) does not apply to the behavioristic organism-environment view, because “environment” is analyzed into (1) environment for the observed organism and (2) environment for the observer. Burns writes as if the field concept of stimulus could only comprise (1).
4. This happy phrase I owe to an amazed listener to the account of the “experiment,” Prof. P. Suppes.
5. The well-known way out of this, to write “A *says* that so and so . . .,” has been sufficiently criticized to be passed over in silence.

Chapter 5: A Plea for Pluralism in Philosophy and Physics

1. The least unsatisfactory survey of different worldviews is that of Karl Jaspers in his *Psychologie der Weltanschauungen* (1919). The least unsatisfactory recent arguments for a monolithic rather than a pluralist view are offered by P. F. Strawson in his *Individuals* (1959). For the semantics and theory of argumentation used to establish the (relative) neutrality of ordinary language and of physical research toward a variety of worldviews, see my short *Communication and Argument* (1966 [SWAN VII]), or my long *Interpretation and Preciseness* (1953 [SWAN I]). That even Hegel’s world color can be reexperienced today, and *even in England*, is exemplified by F. N. Findlay in his *Language, Mind and Value* (1963); see especially p. 230.
2. See Popper’s stress on “rational discussion,” which I take as stress on *pro et contra*, and on contra-arguments against his own tentative conclusions. This necessarily introduces pluralism (i.e., at least *two* alternatives, two mutually inconsistent ways of reasoning on any subject) in his preface to *The Logic of Scientific Discovery* (1959).

Chapter 6: The Case Against Science

1. The term *counterculture* is used by many to denote aberrations from a dominant cultural trend. Others take it to denote groups with cultural ideals and behavior that clearly clash with the dominant. I shall use the term in the latter sense.

Lewis Mumford (1971: 340–41) uses the term *counterculture* in a sense that does not cover its most interesting manifestations when he speaks of “a counter-culture whose very disorder serves admirably to stabilize the power system.” Marxist-Leninism is not disorderly, nor are many religious and peaceful anarchist movements, but they certainly oppose all dominant trends.

2. Why is science an entirely satisfactory way of life to so many people? Research makes it possible to dig deeply into a subject, not just skim the surface. It calls on all the emotional, intellectual, and volitional faculties. It makes use of the inherent urge for identification with something greater than oneself.

The common view that competent research requires special intellectual faculties probably stems from the way in which researchers are selected and the kind of schooling that is required of them.

Basically, persistence, motivation, patience, and imagination are more important than a high I.Q. The history of science speaks of the special achievements of a tiny minority of exceptional individuals. This keeps alive the image of research as the work of cold, superior intellects.

3. See, e.g., E. F. Schumacher, “Buddhist economics,” in Daly (1973).
4. See the reference section for books and other resources cited.
5. See Feyerabend (1975a & 1975b).
6. See Naess, (1973 [in SWAN X]).

Chapter 8: Why Not Science for Anarchists Too?

1. Published in Cohen and Wartofsky (1967).
2. See Kampik, 1974; Ostrander and Schroeder (1973); Weiss (1969); Schadewaldt (1974).

Chapter 9: Nonmilitary Defense

1. The population of Norway in 1962 was 3.5 million. In 2004, it is 4.48 million.
2. It is probably true of most nonmilitary methods of defense that the actions recommended are more effective the more they are engaged in as ends in themselves—as parts of a way of life rather than as means for defense.
3. Examples are the earthquakes in Morocco and Chile, floods in India and England, famine in China and India. Such help should be available on an adequate scale as soon as the need is known. Hence, there must be reserve resources available on instant call.

NOTES TO PAGES 195–210

4. Had adequate help been ready for the 900,000 refugees from the Palestine conflict from 1945 to 1948, it is possible that current tensions in the Near East would be less intense. The UN General Assembly appropriated the small sum of \$5 million and requested all countries to contribute to a fund for a peaceful solution of the refugee problem; few governments responded and only \$35 million was collected (about one-tenth of the cost to Britain and France of the Suez invasion). Despite energetic efforts, the agencies involved could do relatively little. Now the problem is complicated by rigid official positions adopted by the Arab states and Israel, and the constructive program has been shoved into the background while propaganda and fruitless discussions on the question of guilt occupy the foreground. This is only one of the many cases of refugee crises throughout the world, from China to India, Africa to Hungary.
5. This does not imply always providing the invader with all the information he requests.
6. For a classification with examples of sixty-five techniques of nonviolent resistance (in the sense of resistance without weapons), many of which would be applicable in such a situation, see G. Sharp, "The methods of non-violent action" (1960).
7. Microresistance: resistance by individuals and tiny, temporary groups carried out in such a way that exposure and annihilation of larger organizations and institutions do not affect it, at least not directly.

Chapter 10: Can Violence Lead to Nonviolence? Gandhi's Point of View

1. See Gandhi's article in *Harijan*, December 9, 1939.
2. It is tempting to quote the Norwegian author Axel Sandemose's private quarrel with Gandhi in *Brev fra Kjørkelvik* (1953): "So-called restraint is useless, whether it is deliberate or forced. What you have constrained will sooner or later demand to be let out. You should not make believe that you can stop hitting people and abusing them before you have found something else to do." Something else to do was exactly what Gandhi offered.
3. A Norwegian author is reputed to have gone so far as to identify hatred toward oppression with hatred toward the oppressors. This is an extremely un-Gandhian statement.
4. Nevertheless, the British police in India were often brutal. Nonviolent fighters with broken skulls and crushed genitalia were to be found in the hospitals. See Webb Miller's firsthand description of police brutality during the salt *satyāgraha* in his book *I Found No Peace* (New York, 1936), quoted in Fischer (1962b: 100–101).

5. Even Martin Luther King, Jr., views Gandhi primarily in this light. Of his own struggle he said, in his Nobel lecture in Oslo on December 11, 1964: “This approach to the problem of racial injustice is not at all without successful precedent. It was used in a magnificent way by Mohandas K. Gandhi to challenge the might of the British Empire, and free his people from the political domination and economic exploitation inflicted upon them for centuries. He struggled only with the weapons of truth, soul-force, non-injury, and courage.”
6. For details, see Andrews (1930) and Diwakar (1946).

Chapter 11: Consequences of an Absolute *No* to Nuclear War

1. Many scientists seem to reject this presupposition: they think that civilizations with the capacity to destroy themselves through nuclear force are likely to do so within fifty to one hundred years.
2. For comprehensive treatment of this subject, see Schell (1982). I have also profited from the publications of the Stockholm and the Norwegian peace conflict research institutes (SIPRI).
3. The consequences of black-painting were clear in World War II. The government of Germany was able to keep the war machine going in 1944 and 1945 largely by announcing that defeat would result in *definitive* subjugation of the German people.
4. On destruction of the natural environment, see Westing (1977, 1980) and Rotblat (1981). For a short, excellent outline, see Galtung (1982: 34–40). The unacceptability of treating the nonhuman world with moral indifference is well argued by Routley and Routley (1979: 36–59). Human “light” living on earth promotes peace. Voluntary simplicity is indispensable; see Elgin (1981).
5. Institutionalized mutual aid and concern are typical of most nonindustrial communities and cultures of moderate geographical extension. It seems that the unique stress on material progress and growth in our societies requires aggressive, individual competition incompatible with an economy of mutual aid. An instructive recent example is the incompatibility of the competitive “welfare” state and mutual-aid institutions among Greenlanders (see, e.g., Jensen [1973: 447–58]).
6. The best articles and documents on Green economics and politics are written in the German and Scandinavian languages. Notable exceptions are some of the works of E. F. Schumacher, the small-is-beautiful prophet. They combine economic and philosophic issues. Hazel Henderson’s *Politics of the Solar Age: Alternatives to Economics* (1981) is rather rhetorical but takes care of some of the

Green positions. W. Leiss's "Political aspects of environmental issues" (1981) is a good example of an American article on the politics of environmentalism. It appears in an excellent anthology on the philosophy of deep ecology. On this concept and its social and political relevance, see Arne Naess, "The shallow and the deep: Long-range ecological movements" (1973).

7. *WRI Newsletter* 192, (February 1983). On unilateralism, see polls referred to in *Time* magazine, 31 October, 1983, p. 32.
8. This is more a consequence of the size and complexity of the United States than of the likely success of its citizens in implementing a policy of nonviolent resistance. When people from occupied Europe visiting the United States after World War II asked "To what extent would the American people be able (if willing) to carry out large-scale nonviolent noncooperation under occupation?" the answer they received from Americans was usually rather pessimistic, because of the Wild West tradition of shooting villains and because of the heterogeneity of the populace. (Local communication and loyal cooperation are more difficult among widely different cultural groups.)
9. It must be remembered that important sectors of the populace in Poland and other eastern European states were, in the decisive year after World War II, not resolutely and strongly in favor of the Western powers. I find the work of Czesław Miłosz revealing in this connection; see *The Captive Mind* (1955).
10. The Gandhian concept of freedom and self-realization is discussed in Naess (1974b [SWAN V]).
11. I here talk about felt quality of life, something different from quality of life defined in such a way that the opinions of *B* about the quality of life of *A* are relevant. For example, *B* might say that the life of *A* is profoundly unhealthy and will result in *A*'s death, whereas *A*, if asked, would honestly maintain that his or her life is healthy and happy.

Chapter 12: Is Freedom Consistent with Spinoza's Determinism?

1. In formulating this paper I have profited greatly from reading two unpublished manuscripts by Ragnar H. Naess and from subsequent discussions.
2. Compare what he says, in chapters 3 and 6, on prediction of calamities, miracles, victories. My point is only that Spinoza has a concept of prediction and could have discussed its relation to various kinds of determination—if the problem had engaged him, which it did not.
3. It is notable how consistently and repetitiously Spinoza uses *imaginari*. In theorem IIIP40, and the short proof and note, he uses forms of *imaginari* seven times, and he uses near-synonyms or substitutes.

4. Spinoza's view on so-called fatalism and desire is complicated. The subject is not treated in the *Ethics* and we shall not take it up here.
5. Similarly, free men who live among ignorant men try to avoid receiving favors as much as they can (IVP70). In the concluding note to part IV (IVP73Sch) he uses the expression *vir fortis*, the man of strength (*fortitudo*), as a synonym for *homo liber*, the free man. This also suggests degrees of freedom. That there are degrees of strength, even among the strong, is scarcely open to discussion.

Chapter 13: Through Spinoza to Mahāyāna Buddhism or Through Mahāyāna Buddhism to Spinoza?

1. See IIP17, 17Cor2, and 4P4, all quoted by Wetlesen 1978: 29.
2. Evidence referring to the text of the *Ethics* is given in my *Freedom, Emotion, and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics* (1975 [SWAN VI]). See especially part E, "The Road to Freedom Through Active Emotion," pp. 82 ff.
3. A rather wide concept is introduced and used in my *Freedom, Emotion, and Self-Subsistence* (1975 [SWAN VI]: 57). What Wetlesen says about grading does not automatically hold for the "gradual" approach of that work.

Chapter 15: Spinoza's Finite God

1. The following is a list of eleven *Deus quatenus* expressions, all from the small text unit IIP5–IIP11Cor:
 1. *Deus, quatenus est res cogitans* (IIP5)
God as thinking thing: God insofar as he is a thinking thing
 2. *Dei natura, quatenus est res cogitans* (IIP5Dem)
God's nature, insofar as he is a thinking thing
 3. *Dei essentia, quatenus, ut res extensa consideratur* (IIP5Dem)
God's essence, considered as extended thing
 4. *Deus . . . , non quatenus infinitus est* (IIP9)
God . . . , not as infinite: God . . . , not insofar as he is infinite
 5. *Deus . . . , non quatenus est res absolute cogitans* (IIP9Dem)
God . . . , not as far as God is a thinking absolute being
 6. *Deus quatenus . . . affectus consideratur* (IIP9)
God . . . considered as affected
 7. *Deus . . . , quatenus alio affectus est* (IIP9Dem)
God . . . as affected by (an) other
 8. *Deus . . . , quatenus alio cogitandi modo affectus consideratur* (IIP9Dem)
God . . . considered affected by an other cognitive mode

NOTES TO PAGES 292–302

9. *Deus, quatenus alia idea affectus consideratur* (IIP9Dem)
God as considered affected by an other idea
10. *Deus . . . , quatenus per naturam humanae mentis explicatur* (IIP11Cor)
God . . . as explicated through the nature of the human mind
11. *Deus . . . , quatenus humanae mentis essentiam constituit* (IIP11Cor)
God . . . , insofar as he constitutes the essence of the human mind

Chapter 16: Einstein, Spinoza, and God

1. Translation by Sommerfeld. Quotation from the *New York Times*, 25 April, 1929, p. 60, col. 4.

Chapter 17: How My Philosophy Seemed to Develop

1. In preparing this contribution to *Philosophers on Their Own Work*, I have profited from reading the other biographical reflections in this series.
2. Note on the peacefulness of shore life: Books and films generally portray animal life in shallow seas as a brutal fight for existence. The remarkable peacefulness and cheerfulness that I and others have experienced there is influenced by many factors: The rapid movements of small creatures rarely suggest depression, boredom, lassitude; very often they suggest vivacity, joy of life, swimming, playing. The small predators mostly eat organisms so tiny that they are unseen, or the prey disappear at once into the mouth of the predator, suggesting very rapid death without prolonged pain. The eating or destroying of others does not occupy much time. If ten organisms are observed in an hour, there is perhaps only one case, occupying ten seconds, of killing (I do not count the eating of planktonic microscopic animals). Furthermore, even if, in theory, the animals are always on the lookout for suitable prey, they seem in practice to be engaged in a variety of activities and to enjoy moving around.

References

Books or articles appearing in the *Selected Works of Arne Naess* are identified by (SWAN XX) at the end of the entry, where XX refers to the pertinent volume number.

- Agassi, J. 1963. "Towards an historiography of science." In *History and Theory*, Beiheft 2. The Hague.
- Allport, Gordon W. 1950. "Prejudice: A problem in social and psychological causation." *Journal of Social Issues* 4 (supplemental series).
- . 1955. *Becoming*. New Haven: Yale University Press.
- Amundsen, Roald. 1925. *Gjennem Luften til 88 Nord* (Through the air to 88° north). Oslo: Gyldendal.
- Andrews, Charles F. 1930. *Mahatma Gandhi's Ideas*. New York: Macmillan.
- Apel, K. O. 1962. "Kann es ein wissenschaftliches Weltbild überhaupt geben?" *Zeitschrift für philosophische Forschung* 16.
- Arendt, Hannah. 1973. *The Origins of Totalitarianism*. New York: Harvest Books.
- Aron, Raymond. 1957. *The Opium of the Intellectuals*, translated by Terence Kilmartin. New York: Doubleday.
- Austin, Mary. 1972. *Acupuncture Therapy*. New York: Asi.
- Basalla, G., ed. 1968. *The Rise of Modern Science: Internal or External Factors?* Lexington, MA: Heath.
- Beard, Charles. 1937. *An Economic Interpretation of the Constitution of the United States*. New York: Macmillan.
- Bernal, J. D. 1967. *The Social Function of Science*. Cambridge, MA: MIT Press (1939).
- . 1973. *The Extension of Man: The History of Physics Before the Modern Age*. London: Weidenfeld and Nicolson.
- Bondurant, Joan V. 1958. *Conquest of Violence*. Princeton: Princeton University Press (1988, revised).

REFERENCES

- Boscherini, Giancotti. 1970. *Lexicon Spinozanum*. The Hague: Nijhoff.
- Bridgman, Percy W. 1946–55. *The Logic of Modern Physics*. New York: Macmillan.
- . 1949. *The Physics of High Pressure*. London: G. Bell.
- Bruner, Jerome S. 1956. *A Study of Thinking*. New York: Wiley.
- Bukharin, N. 1971. *Science at the Crossroads*. London: Cass.
- Burt, E. A. 1950. *The Metaphysical Foundations of Modern Physical Science*. London: Routledge and Kegan Paul (1924).
- Butterfield, H. 1957. *The Origins of Modern Science*. London: G. Bell.
- Campbell, Donald T. 1959. "Methodological suggestions from a comparative psychology of knowledge processes." *Inquiry* 2: 179–82.
- Cantril, H., ed. 1950. *Tensions That Cause Wars, Common Statement and Individual Papers by a Group of Social Scientists Brought Together by UNESCO*. Urbana: University of Illinois Press.
- Carmichael, Stokely, and C. V. Hamilton. 1967. *Black Power: The Politics of Liberation in America*. New York: Vintage Books.
- Cassirer, Ernst. 1920. *Das Erkenntnisproblem in der Philosophie und Wissenschaft*, 3 vols. Berlin: Verlag Cassier.
- Chomsky, Noam. 1969. "Objectivity and liberal scholarship." In his book *American Power and the New Mandarins*. New York: Pantheon.
- Clark, Ronald W. 1971. *Einstein: The Life and Times*. New York: World.
- Cohen, R. S., and M. W. Wartofsky, eds. 1967. *Boston Studies in the Philosophy of Science*, vol. 3. Dordrecht and Boston: Reidel.
- Conze, Edward, trans. 1958. *Buddhist Wisdom Books: Containing the Diamond Sutra and the Heart Sutra*. London: Unwin Hayman (New York: Harper and Row, 1972).
- Copleston, Frederick. 1963. *A History of Philosophy*, vol. 4. New York: Image Books.
- Daly, H. E., ed. 1973. *Towards a Steady State Economy*. San Francisco: W. H. Freeman.
- d'Espagnat, Bernard. 1965. *Conceptions de la physique contemporaine*. Paris: Hermann.
- Diwakar, Ranganath. 1946. *Satyāgraha: Its Technique and History*. Bombay: Hindkitars.
- Doob, Leonard W. 1948. *Public Opinion and Propaganda*. New York: Holt.
- Einstein, Albert. 1923–79. *The Meaning of Relativity*. Princeton: Princeton University Press.
- . 1934. *Essays in Science*. New York: Philosophy Library.
- . 1949. *The World as I See It*. New York: Philosophy Library.
- Elgin, Duane. 1981. *Voluntary Simplicity*. New York: W. Morrow.

REFERENCES

- Ellul, J. 1964. *The Technological Society*, translated by J. Wilkinson. New York: Vintage Books.
- Eysenck, Hans J. 1954. *The Use and Abuse of Psychology*. New York: Viking Press.
- Fanon, Frantz. 1967. *The Wretched of the Earth*. London: Penguin.
- Feyerabend, Paul K. 1967. "On the improvement of the sciences and the arts, and the possible identity of the two." In *Boston Studies in the Philosophy of Science*, vol. 3, edited by R. S. Cohen and M. W. Wartofsky. Dordrecht and Boston: Reidel.
- . 1975a. *Against Method*. London: Thetford Press (Verso ed., 1978).
- . 1975b. "'Science': The myth and its role in society." *Inquiry* 18: 167–82.
- Findlay, John N. 1963. *Language, Mind and Value*. London: Allen and Unwin.
- Fischer, Louis. 1962a. *The Essential Gandhi*. New York: Vintage Books.
- . 1962b. *Gandhi: His Life and Message for the World*. New York: Mentor Books.
- Friedrichs, R. W. 1970. *A Sociology of Sociology*. New York: Free Press.
- Galtung, Johan. 1977. *Methodology and Ideology*, vol. 1. Copenhagen: Christian Ejlers.
- . 1982. *Environment, Development and Military Activity*. Oslo: Universitetsforlaget.
- Gandhi, M. K. 1941. *Constructive Programme: Its Meaning and Place*. Ahmedabad: Navajivan.
- . 1945. *Constructive Programme*. Ahmedabad: Navajivan (later edition).
- . 1949. *Non-violence in Peace and War*, vol. 2. Ahmedabad: Navajivan.
- . 1956. *An Autobiography*. Ahmedabad: Navajivan.
- Geach, Peter. 1957. *Mental Acts*. London: Routledge and Kegan Paul.
- Gelter, Hans. 2000. "Friluftsliv: The Scandinavian philosophy of outdoor life." *Canadian Journal of Environmental Education* 5: 77–92.
- Godlovitch, Stanley, Roslind Godlovitch, and John Harris. 1971. *Animals, Men and Morals*. London: Gollancz.
- Greenberg, D. S. 1967. *The Politics of American Science*. New York: New American Library.
- Gross, Felicks. 1971. *European Ideologies*. New York: Philosophy Library (1948).
- Gueroult, Martial. 1968. *Spinoza I: Dieu*. Hildesheim: G. Olms.
- Guthrie, Edwin R. 1935. *The Psychology of Learning*. New York and London: Harper and Bros.
- Habermas, J. 1968. *Technik und Wissenschaft als "Ideologie"*. Frankfurt am Main: Suhrkamp Verlag.

REFERENCES

- Hampshire, Stuart. 1951. *Spinoza*. Baltimore and Harmondsworth, UK: Penguin.
- Harijan*. Weekly paper published in Poona, later in Ahmedabad. Edited chiefly by Gandhi.
- Hartmann, G. W. 1936. "The contradiction between the feeling-tone of political party names and public response to their platforms." *Journal of Social Psychology* 7: 336-57.
- Henderson, Hazel. 1981. *The Politics of the Solar Age: Alternatives to Economics*. New York: Anchor Books.
- Hessing, Sigfried, ed. 1962. *Spinoza-Festschrift, 1632-1932*. The Hague: Nijhoff.
- Höfding, Harald. 1950. *A History of Modern Philosophy*. New York: Humanities Press.
- Holton, Gerald J. 1970. "Mack, Einstein, and the search for reality." In *Boston Studies in the Philosophy of Science*, vol. 6, edited by R. S. Cohen and R. J. Seeger. Dordrecht and Boston: Reidel, pp. 39-57.
- Horowitz, Irving Louis. 1967. *The Rise and Fall of Project Camelot*. Cambridge, MA: MIT Press.
- Iversen, Olav H., and E. G. Astrup. 1984. "The paradigm of two-stage carcinogenesis: A critical attitude." *Cancer Investigations* 2: 51-60; review.
- James, William. 1904. "Does 'consciousness' exist?" *Journal of Philosophy, Psychology, and Scientific Methods* 1: 477-91.
- Jaspers, Karl. 1919. *Psychologie der Weltanschauungen*. Berlin: Springer (1960).
- Jensen, Bent. 1973. "Human reciprocity: An Arctic exemplification." *American Journal of Orthopsychiatry* 43: 447-58.
- Kaila, Eino. 1941. *Über den Physikalischen Realitätsbegriff*. Helsinki: Editio Societas Philosophica.
- Kampik, G. Ap. 1976. "Akupunktur-Theorie und Praxis." *Fortschr Medicine* 94: 559-62.
- Kelsen, Hans. 1929. *Vom Wesen und Wert der Demokratie*. Tübingen: Mohr (Aalen: Scientia Verlag, 1981).
- Koch, Sigmund, ed. 1959. *Psychology: A Study of a Science*. New York: McGraw-Hill.
- Koestler, Arthur. 1972. *The Roots of Coincidence*. London: Hutchinson.
- Kroeber, Alfred. 1923. *Anthropology*. New York: Harcourt, Brace.
- Kuhn, Thomas. 1962. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.
- Leiss, W. 1981. "Political aspects of environmental issues." In *Ecological Consciousness*, edited by R. C. Schultz and J. D. Hughes. Lanham, MD: University Press of America.

REFERENCES

- Lewin, Kurt. 1951. *Field Theory in Social Science*. New York: Harper and Row.
- Loomis, Frederic B. 1926. *The Evolution of the Horse*. Boston: Marshall Jones.
- Marcuse, Herbert. 1972. *Counterrevolution and Revolt*. Boston: Beacon Press.
- Markovic, Mihailo. 1972. "The ethics of critical social science." *International Social Science Journal* 24.
- Marx, Karl. 1920. *Capital*. London: Glaisher (New York: International Publishers, 1929).
- McKeon, R., and S. Rokkan, eds. 1951. *Democracy in a World of Tensions*. Chicago: University of Chicago Press.
- Medvedev, Zhores A. 1969. *The Rise and Fall of T. D. Lysenko*, translated by I. M. Lerner. New York: Columbia University Press.
- Meynaud, Jean. 1969. *Technocracy*, translated by P. Barnes. New York: Free Press.
- Miller, Webb. 1936. *I Found No Peace*. New York: Simon and Schuster.
- Milosz, Czeslaw. 1955. *The Captive Mind*. New York: Vintage Books.
- Moynihan, Daniel. 1975. *Coping: On the Practice of Government*. New York: Vintage Books.
- Mumford, Lewis. 1970–71. *The Pentagon of Power*. London: Secker and Warburg.
- Naess, Arne. 1936a. *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge Acquisition and Scientific Behavior). Oslo: Jacob Dybwad.
- . 1936b. "Zun Repert von E. C. Tolman" (Reporting on the work of E. C. Tolman). *Erkenntnis* 6: 397–98.
- . 1938. *Truth as Conceived by Those Who Are Not Professional Philosophers*. Oslo: Norwegian Academy of Science and Jacob Dybwad.
- . 1953. *Interpretation and Preciseness: A Contribution to a Theory of Communication*. Oslo: Jacob Dybwad. (SWAN I)
- . 1966. *Communication and Argument: Elements of Applied Semantics*. Oslo: University of Oslo Press. (SWAN VII)
- . 1968a. *Four Modern Philosophers*. Chicago: University of Chicago Press.
- . 1968b. *Scepticism*. London and New York: Humanities Press. (SWAN II)
- . 1972. *The Pluralist and Possibilist Aspect of the Scientific Enterprise*. Oslo: Universitetsforlaget (London: Allen and Unwin). (SWAN IV)
- . 1973. "The shallow and the deep long-range ecology movement: A summary." *Inquiry* 16: 95–100. (in SWAN X)
- . 1974a. "Equivalent terms and notions in Spinoza's *Ethics*." Oslo: *Inquiry*, Filosofisk Institutt, University of Oslo.
- . 1974b. *Gandhi and Group Conflict: An Exploration of Satyāgraha*. Oslo: Universitetsforlaget. (SWAN V)

REFERENCES

- . 1975. *Freedom, Emotion and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics*. Oslo: University of Oslo Press. (SWAN VI)
- . 1989. *Ecology, Community and Lifestyle: Outline of an Ecosophy*. Cambridge, UK: Cambridge University Press.
- . 2005. "A Necessary Component of Logic: Empirical Argumentation and Analysis." (in SWAN VIII)
- Naess, Arne, Jens Christophersen, and Kjell Kvalo. 1956. *Democracy, Ideology and Objectivity*. Oslo: University of Oslo Press.
- Nagel, Ernest. 1961. *The Structure of Science: Problems in the Logic of Scientific Explanation*. New York: Harcourt, Brace and World.
- Needham, Joseph. 1949. *Science and International Relations*. Oxford: Blackwell.
- . 1969. *The Grand Titration: Science and Society in East and West*. London: Allen and Unwin.
- Oakeshott, Michael J. 1966. *Experience and Its Modes*. Cambridge, UK: Cambridge University Press.
- Ostrander, Sheila, and Lynn Schroeder. 1973. *PSI-Psychic Discoveries Behind the Iron Curtain*. London: Abacus.
- Parsons, Talcott. 1949. *The Structure of Social Action*. New York: Free Press.
- Perelman, Chaim. 1945. *De la justice*. Brussels: Office de Publicité.
- Peters, R. S. 1951. "Observations in psychology." *Mind* 60.
- Polanyi, Michael. 1958. *Personal Knowledge: Toward a Postcritical Philosophy*. Chicago: University of Chicago Press.
- Popper, Karl. 1945–57. *Open Society and Its Enemies*. London: Routledge and Kegan Paul (1949).
- . 1959. *The Logic of Scientific Discovery*. New York: Harper Basic Books.
- . 1976. *Unended Quest*, rev. ed. London: Fontana/Collins.
- Prabhu, R. K., and U. R. Rao. 1946. *The Mind of Mahatma Gandhi*. London and New York: Oxford University Press.
- Price, D. J. de S. 1965. *Little Science, Big Science*. New York: Columbia University Press.
- Ravetz, Jerome R. 1973. "Tragedy in the history of science." In *Changing Perspectives in the History of Science*, edited by M. Teich and R. Young. London: Heinemann.
- Reich, Charles. 1971. *The Greening of America*. New York: Random House.
- Rizzi, Bruno. 1939. *La bureaucratisation du monde*. Paris.
- Rogers, Carl R. 1961. *On Becoming a Person*. Boston: Houghton Mifflin.
- Rosenfeld, Leon. 1961. "Foundations of quantum theory and complementarity."

REFERENCES

- Nature* 190: 384–88. Reprinted in *Selected Papers of L. R. Rosenfeld*, edited by Robert S. Cohen and John J. Stachel. Boston and Dordrecht: Reidel (1979).
- Roszak, Theodore. 1969. *The Making of a Counter-culture*. New York: Doubleday.
- . 1972. *Where the Wasteland Ends*. New York: Doubleday (London: Faber, 1973).
- Rotblat, Joseph. 1981. *Nuclear Radiation in Warfare*. London: Taylor and Francis.
- Routley, R., and V. Routley. 1979. "Against the inevitability of human chauvinism." In *Ethics and the Problems of the Twenty-first Century*, edited by K. E. Goodpaster and K. M. Sayre. Notre Dame, IN: University of Notre Dame Press.
- Russell, Bertram. 1934. *Freedom and Organisation, 1814–1914*. London: Allen and Unwin.
- Ryle, Gilbert. 1949. *The Concept of Mind*. London and New York: Hutchinsons University Library.
- Sandemose, Axel. 1953. *Brev fra Kjorkelvik*. *Astridende* no. 6.
- Schadewaldt, Hans. 1974. "Medicus politicus: Medicine between utopia and reality." *World Medical Journal* 21.
- Schell, Jonathan. 1982. *The Fate of the Earth*. New York: Knopf.
- Schilpp, P. A., ed. 1949. *Albert Einstein: Philosopher-Scientist*. Evanston, IL: Library of Living Philosophers.
- Schumacher, E. F. 1973a. "Buddhist economics." In *Toward a Steady State Economy*, edited by H. E. Daly. San Francisco: W. H. Freeman.
- . 1973b. *Small Is Beautiful*. New York: Harper and Row.
- Shapiro, James. 1969. Remarks made at a press conference in November at Harvard, as reported in the *New York Times* in a front-page article by Bob Rhinehart.
- Sharp, G. 1960. "The methods of non-violent action." Mimeographed. Oslo: Institute for Social Research.
- Sherif, M. 1937. "The psychology of slogans." *Journal of Abnormal and Social Psychology* 32: 450–61.
- Skinner, B. F. 1953. *The Science of Human Behavior*. New York: Macmillan.
- . 1971. *Beyond Freedom and Dignity*. New York: Bantam/Vintage.
- Sommerfeld, Arnold. 1949. Quoted in *Albert Einstein: Philosopher-Scientist*, edited by P. A. Schilpp. Evanston, IL: Library of Living Philosophers.
- Sorokin, Pitirim A. 1941. *The Crisis of Our Age: The Social and Cultural Outlook*. New York: Dutton.
- Spinoza, Benedictus de. 1951. *Theological-Political Treatise*. New York: Dover.
- . 1956. *How to Improve Your Mind*. New York: Wisdom Library.

REFERENCES

- . 1963. *Ethics*. London and New York: Dent and Dutton.
- . 1965. *The Political Works* (includes the full political treatise in Latin and English). Oxford: Clarendon Press.
- Stevens, Stanley Smith. 1951–53. *Handbook of Experimental Psychology*. New York: Wiley.
- Stevenson, Charles L. 1944. *Ethics and Language*. New Haven: Yale University Press.
- Strawson, P. F. 1959. *Individuals*. London: Methuen.
- Tendulkar, D. G. 1951. *Mahatma*, vol. 1. Bombay: Vithalbhai K. Jhaveri and D. G. Tendulkar.
- Ten Hoor, Marten. 1954. *Freedom Limited: An Essay on Democracy*. Alabama: University of Alabama Press.
- Tolman, Edward Chace. 1932. *Purposive Behavior in Animals and Men*. New York: Century.
- Trungpa, Chögyam. 1971. *Born in Tibet*. Baltimore: Penguin.
- Weber, Max. 1921. *Economy and Society*. New York: Bedminister Press.
- Weinberg, Alvin B. 1967. *Reflections on Big Science*. Cambridge, MA: MIT Press.
- Weiss, R. F. 1969. *Moderne Pflanzenheilkunde*. Bad Wörishofen: Sanitas Verlag.
- Wells, H. G. 1922. *Outline of History*, 2 vols. New York: Macmillan.
- Westing, A. H. 1977. *Weapons of Mass Destruction and the Environment*. London: Taylor and Francis.
- . 1980. *Warfare in a Fragile World*. London: Taylor and Francis.
- Wetlesen, Jon. 1979. *The Sage and the Way: Spinoza's Ethics of Freedom*. Assen: Gorcum (Oslo: University of Oslo Press, 1976).
- Whitehead, Alfred N. 1949. *The Aims of Education*. New York: Mentor Books (1929).
- Winch, Peter. 1958. *The Idea of a Social Science*. London: Routledge (New York: Humanities Press).
- Wolfson, Harry Austryn. 1958. *The Philosophy of Spinoza: Unfolding the Latent Process of His Reasoning*, 2 vols. New York: Meridian Books.
- Zaslavski, David. 1946–47. *La démocratie soviétique*. Paris: Editions Sociales.

Index

- absolutism, 7, 16, 248
 - See also under* freedom; internality; justice
- action research, 179–80
- action(s), 259, 329–31
 - external vs. internal, 255, 260
- activeness vs. activity, 329–30
- advertising, 15, 16
- aggression, 73
 - critical attitude creates indifference in face of, 8–10
 - See also* national aggression; violence
- ambiguity. *See under* democracy(ies); Jørgensen
- Amundsen, Roald, 183
- anarchistic lifestyles, 177–78
- anarchists, science as good for, 183
- anger, 240–41
- anti-Semitism, 13, 320
- Arendt, Hannah, 152
- argumentation, 181–82, 263
- arguments, equivalences as, 281–83
- Aristotle, 143–44
- arms race. *See* nuclear arms race
- Aron, Raymond, 95, 98
- Astrup, E. G., 167
- “basic,” 125
- behavior units, research, 105–08
- behavioral approach
 - behaviorism and the, 110–14, 152
 - and operationism, 114–18
- behavioral science, 104–05
 - logic of science, philosophy of science, and, 119–21
 - of science, reformulation of, 119
- behavioral therapy, 152–53
- Bennett, Ivar, 148
- Bentham, Jeremy, 8
- Bergson, Henri, 309, 310
- Bettelheim, Charles, 40, 50, 65, 67, 77, 79, 83
- Black Power* (Carmichael and Hamilton), 211, 212
- blacks and black liberation, 211
 - See also* King, Martin Luther, Jr.
- Boas, George, 40, 45, 52
- Bober, M. M., 48, 54, 82, 83
- Bochenski, I. M., 42, 43, 45, 56, 79
- Bohr, Niels, 295–96
- bondage, 259, 260
- Bondi, Hermann, 140–41
- Borgese, G. A., 67, 68
- Bowle, John, 82
- Bridgman, P. W., 114–16
- Brogan, D. W., 81
- Brogan formula, 81–82
- Brown, D., 35, 48, 70, 77, 82
- Bruner, Jerome S., 108
- Bryan, William Jennings, 64
- Buddhism, 260, 276
 - Spinoza and, 255–58, 272–75
- campaigns, positive vs. negative, 213–15
- Campbell, Donald T., 107
- Carmichael, Stokeley, 211
- Carnap, Rudolf, 312
- Carritt, Edgar F., 77
- Carson, Rachel, 315
- Casteñeda, Carlos, 181
- causality, 129
 - See also* determination
- certainty (and finality)
 - excessive claims to, 3–4, 15
 - See also* Heisenberg; knowledge
- Chinese medicine, 162

INDEX

- Churchill, Winston, 26
- Cobden, Richard, 7–8
- coercion, 246
- cognition, 267–68
 - adequate, 257–60, 269, 271
 - Spinoza on, 259, 262, 267–68, 270–71
- cognitive maps. *See* maze epistemology
- communication
 - science of, and use in clarification of conflicts, 21–22
 - training in, 226
- communism, 55–56
 - fascism and, 334–35ⁿ⁷, 335ⁿ¹¹
 - See also* democracy(ies), Eastern vs. Western; Marxists; Soviet Union
- complementarity, 132
- conflicts, clarification of, 21–22
- consciousness, 137
- constant(s), 128
- content analysis, 18
- Copenhagen interpretation, 129
- cosmology, 104
- counterculture, 346–47ⁿ¹
- Cox, Oliver C., 41
- “crisis of our age,” 10
 - social science as contributing to, 11
- critical attitude, 5
- cultural evolution, 223–24
- cynicism, 7
- decision-making power
 - centralization vs. decentralization of, 196–97
 - See also* democracy(ies)
- deep ecology and education, 317–31
- defense
 - military, 217
 - inadequacy, 189–91
 - research, 200–201
 - See also* national aggression
 - See also* nonmilitary defense
- definiteness of intention, 128–29, 142
- delimitation, 240
- demilitarization. *See* military disarmament; nuclear disarmament
- Democracy, Ideology and Objectivity* (Naess), 3ⁿ
- Democracy in a World of Tensions* (McKeon et al.), 3ⁿ
- democracy(ies), 313
 - ambiguity of the term, 34–40
 - evidence of, 40–42
 - arms race and, 223
 - common characteristics of, 49–50
 - Eastern vs. Western, 65–70, 97
 - economic foundations, 63
 - factors in current ideological use of, 60
 - meanings and conceptions of, 35–37, 47–50, 55, 66, 68, 335ⁿ¹¹
 - “narrow” vs. “broad,” 55–60
 - misuse of the term, 42–46
 - new uses of the term, 47–49
 - “normal sense” of the term, 37
 - one-party systems compatibility with, 78–80
 - political and other, 52–73
 - scepticism and, 80–83
 - semantics of the term, 34–51
 - aspirations vs. achievements and, 46–47
 - tolerance vs. treason, 73–83
 - value foundations of conflicts regarding, 83–86
 - what should be repressed in, 73–78
- democratic opinion-influencing
 - ideals of, 71–73
 - vs. pressure, 70–73
- democraticity, 38, 39, 54, 55
- democratization, 52
- Descartes, René, 246–54, 282
- D’Espagnat, Bernard, 133
- determination
 - antidetermination and timeless kinds of, 239–43
 - infinite chain of timeless causes or reasons, 237–39
 - meanings and kinds of, 236–37
- determinism, 129, 253, 291
 - (in)consistency between freedom and Spinoza’s, 235, 242–43
 - See also under* Einstein; Spinoza
- dialectical materialism, 69
- diversity, 302, 305
 - and nonviolence, 313–14
- Ducasse, C. J., 47, 54, 65, 67, 69–71, 82, 84
 - on democracy, 35, 56
 - on misuse of words, 42–43, 45
- Duhem, Pierre, 131–32, 139
- eclecticism, 137
- ecological equilibrium, science in a community of, 163
- ecology, 325, 327
 - deep. *See under* education
- economics, 63, 157
 - and personal identity, 208

INDEX

- ecosophy, 315–16
- education, 72
 - deep ecology and, 317–31
 - environmental, 321–24
 - textbook “knowledge” and, 4–5
- egalitarianism, 305, 307
- Einstein, Albert, 105, 114, 116, 139
 - on God and determinism, 291–97
- Eisenmann, Charles, 35, 59, 65, 78
- elitism, 148–49, 154–55
- emotions, 258, 267–69, 272, 273
- empiricism, logical, 312–13, 320
- enlightenment
 - happens in time, doesn’t develop out of nonfreedom, 268–71
- environmental education. *See under* education
- environmental ethics, 321
- environmental philosophy(ies)
 - evolution of, 318–19
 - See also* deep ecology and education
- epistemology(ies), 311
 - maze, 118–19
 - naturalist, 308–10
- equivalence(s)
 - as arguments, 281–83
 - expressions of, 278–81
- essential relations, 244–46, 254
- eternity, 266, 270–72
- ethics, 321
 - in psychology, 152–53
 - See also under* Gandhi
- ethology, 308–09
- Ewing, A. C., 39, 67, 77
- Eysenck, Hans J., 152

- faith in ultimate ends and values, 9, 10
- Fanon, Frantz, 211
- Farber, Marvin, 50, 59, 79
- fascism
 - communism and, 334–35ⁿ⁷, 335ⁿ¹¹
 - See also* Germany; Hitler; Nazism
- Feibleman, James K., 50
- Feyerabend, Paul, 162, 176–78, 180–81, 183, 184
- Field, G. C., 36, 39, 64, 67, 69, 82, 84
- Finland, 218
- Fischer, Louis, 207
- Four Modern Philosophers* (Naess), 312
- free men, 241
- free will. *See* determinism; freedom

- freedom, 196, 229, 253, 335ⁿ¹¹
 - absolute, 268–71
 - through cognition only of oneself, 267–68
 - commitment to, 192–93
 - conceptions of, 257–58, 260, 265–66, 270, 272
 - fictive human, 250–53
 - Gandhi on, 207, 229
 - grades of power and, 246–48
 - through insight into determination of essentials, 245–46
 - Wetlesen on, 257–60, 263–74
 - what it consists of, 248–50
 - See also* democracy(ies), what should be repressed in; Spinoza, on freedom and determinism
- Frondizi, Risieri, 35
- fundamentality, 124–25, 135, 136

- Gaia, 321, 328
- Galileo, 179
- Galtung, Johan, 176
- Gandhi, Mahatma, 205, 207, 208, 210, 212–13, 260–61, 328–29
 - campaigns, 208, 209, 213, 215
 - on condemnation, 206
 - on counterviolence, 206
 - on equality, 206
 - on freedom, 207, 229
 - on God and truth, 203–04
 - and meditation, 261, 262
 - on *satyāgrahi* and ethics of nonviolence, 305, 313–14
 - on self-respect, 207–09
 - on *swaraj* (self-rule), 213, 214, 229
- Germany, 9, 26, 99, 228–29
 - See also* Hitler; Nazism
- gestalts, 322–24
- God, 7
 - closeness of mind to, 267–68
 - Einstein on, 291–97
 - Gandhi on, 203–04
 - law of, 8
 - Wetlesen on, 263–65, 267, 270
 - See also under* Spinoza
- Gough, J. W., 45, 50
- grading, wide and narrow concepts of, 271–72
- Green ideologies, 93
- Gromyko, 68
- Gross, F., 91

INDEX

- Gueroult, Martial, 285–88
 Guthrie, Edwin R., 111–12
- Hagopian, M., 41, 78
 Hampshire, Stuart, 243
 happiness principle, 8
 Harner, Michael, 181
 Heckscher, Gunnar, 35, 37, 47, 48
 Hegel, Georg Wilhelm Friedrich, 132
 Heisenberg, Werner K., 132
 hermeneutics, 99
 Hessen, Boris, 165
 heuristics, 115
 history of life, immensity and nearness of, 306–08
 Hitchmann, Edward, 301, 307
 Hitler, Adolf, 8, 16, 196, 228
 Hobbes, Thomas, 317
 Hocking, William E., 52
 Hollis, Christopher, 56, 77
 Holmes, Justice, 77
 Horvath, Barna, 35, 37, 39, 47, 50, 59, 77, 79, 80, 83
 Hull, C. L., 97
 Husserl, Edmund, 309, 310
 hypothetico-deductive methodology, 159
- ideological conflicts, 86–88
 aspirations vs. achievements, 46–47
 exaggerating philosophical profundity of, 18–20
 keywords and slogans used in, 13, 17, 18, 46, 335n8
 ideological convictions, unquestioned, 333n2
Ideologiekritik, 99
 ideology(ies), 12, 99–100
 basic agreements in, 23–25
 dangerous aspects of, fostered in schools, 20–21
 deep value priorities in, 93–95
 end-of-ideology movement, 98–99
 as functioning to organize and justify aggression, 14–15
 and ideology research, 11–13, 21
 impact on ingroups and outgroups, 15–18
 irrationality of our opponents', 95–96, 99–100
 neutral and negative definitions, 91–92
 reductivistic theories of, 18
 imagination, 244
 immortality, problem of, 142
 India, 214
 See also Gandhi
- industrial development, 26
 science and, 176
 ingroups and outgroups, 7, 21, 96–98
 ideologies and, 15–19
 intention
 definiteness of, 128–29, 142
 depth of, 139
 internality, 257–60
 implied by absoluteness, 262–64
 international character, 87
 international service, 193–95
 areas of, 195–96
 international understanding, norms and attitudes
 favorable to, 22
Interpretation and Preciseness (Naess), 313
 intuition, complexity of, 262
 Iversen, Olav H., 167
- James, William, 113, 304
 Jews, 13, 320
 Jørgensen, Jørgen
 on democracy, ambiguity, and misuse of terms, 36, 38, 41–44, 47, 50, 58, 79–81, 83
 justice, objective absolute norm of, 7
- Kabir, Humayun, 40, 50
 Kaila, Eino, 108
 Kallen, Horace M., 44
 Khadi movement, 207–08
 King, Martin Luther, Jr., 205, 210, 211, 215
 knowledge, 308
 hypothetical character of textbook, 4–5
 underestimation of nonscientific, 178–79
 See also certainty
 Kohn, Hans, 77
 Kuhn, Thomas S., 166–67
- language. *See* democracy(ies); semantics; words
 Laplacian universes, 241–44
 learning theories, 97
 Lefebvre, Henri, 35, 37, 44, 64, 67, 77, 79
 Lenin, Vladimir Ilyich, 48, 64–65, 84
 Lewis, C. I., 136
 on democracy, 35, 38, 42–44, 50, 53, 54, 56, 62, 78
 Lien, Arnold J., 50
 lifestyle(s)
 new, 177–78
 research and, 182
 Lincoln, Abraham, 52–54

INDEX

- Lincoln formula, 52–55, 89
 Lindsay of Birker, Lord, 40, 48, 65
 Logemann, H. A., 59, 79
 logic, 120–21, 132
 Loomis, Frederic B., 146
 Lovejoy, Arthur, 40, 42, 44, 47, 77, 82

 Mach-Duhem-Poincaré theorem, 169, 171, 172
 magic, belief in and technical science, 183
 Mahāyāna Buddhism. *See* Buddhism
 Marshall, James, 44, 69
 Marins, Wilson, 78
 Marx, Karl, 48, 149
 Marxists, 48, 64–65, 155
 mathematics, 125, 128, 134
 Maxwell, James Clark, 140
 maze epistemology, 118–19
 error of, 118
 Mazzini, Giuseppe, 7–8
 McKeon, Richard, 48, 77, 83
 on democracy, 36, 41, 50, 55, 65, 67–69, 79
 on ideological violence, 47
 on misuse of words, 45
 means-ends relations, 9–11, 13, 14
 and development of large-scale aggression, 6–8
 medicine, traditional Chinese, 162
 meditation, 255–57, 261, 275, 276
 Medvedev, Zhores A., 154
 Mephisto, 305–06
 metascience, 105–07, 115–18, 123, 124, 139
 basic aim, 104
 from the far outside and near outside, 103–05
 metascientific model of scientific knowledge, 310
 microresistance, 200
 militant nonviolence, 225, 227, 229
 military. *See* defense; nuclear arms race
 military disarmament, 225–26, 231
 See also nuclear disarmament
 military occupation, way of nonviolence under, 225–30
 Moynihan, Daniel, 150–51
 music, 322

 Naess, Arne, 135–37, 139–41, 143–44
 conversation on deep ecology and education, 317–31
 as infant shoreline naturalist, 302–05
 Mephisto cousin, 305–06
 motives for psychoanalysis in 1934, 301–02

 Naess, Kit-Fai, 326
 Nansen, Fridtjof, 193
 national aggression, 6–8, 19
 excessive claims to certainty and finality in writings on, 3–4
 factors influencing, 3
 causal weight of, 25–27
 See also aggression; defense; military occupation; nuclear war; war; World War II
 national character, 87
natura naturata, 288–89, 292–94
 natural history, 325
 natural medicine. *See* Chinese medicine
 naturalist, Naess as infant shoreline, 302–05
 naturalist epistemology, 308–10
 natural-science methodology, 160
 nature, 292, 315
 laws of, 294, 295
 as object of science, 159–61
 order of, 294
 Nazism, 336n15
 See also Germany; Hitler
 Needham, Joseph, 153
 Nef, Frederic, 144
 Nerman, Ture, 40, 47, 48
 Newton, Isaac, 165
 nihilism, social science as allied with, 11
 Nomad, Max, 50, 54, 78
 nominalism, 289
 nonmilitary defense, 191–92, 196, 201
 nonmilitary resistance, 197–98, 201, 215, 228
 techniques of, 198–200
 nonviolence, 199
 diversity and, 313–14
 militant, 225, 227, 229
 under occupation, 225–30
 See also Gandhi; nonmilitary resistance
 Norway, 150, 190–91, 199, 206
 nuclear arms race, 218, 229
 cultural evolution and, 223–24
 nuclear deterrence, 220, 223–24
 nuclear disarmament, 220, 225
 See also military disarmament
 nuclear peril, nature of the current, 218–22
 nuclear war, consequences of an absolute “no” to, 217, 225

 obedience and democracy, 54
 objectivity, fear of, 21

INDEX

- observation and theory, 168
- observationism, 109
- open-minded inquiry, 7
- operationism, 113, 309
 - behavioral approach and, 114–18
 - defined, 114
- Opium of the Intellectuals, The* (Aron), 98
- Ossowski, Stanislaus, 48, 50, 59, 67
- pacifism, 192
- panentheism, 292–93
- paradigms and paradigm shifts
 - Kuhn's concept, 166–67
 - non-Kuhnian paradigms, 167–74
- paranoid patterns of thinking, 337n18
- Parmenides, 295
- Pascal, Blaise, 141
- Pascual, Ricardo R., 79, 83
- passions, 258, 267–69, 272, 273
- Patri, Aimé, 54, 65, 78
- peace. *See* aggression; national aggression; nonviolence
- Perelman, Chaim, 37, 40, 44, 45, 54, 79
- Peters, R. S., 108, 113
- philosophical terminology, 308, 310, 312
 - See also* ideological conflicts, keywords and slogans used in
- philosophies, richness of amateur, 311–12
- physics
 - classical, 129
 - philosophy of, 136
 - pure vs. philosophical, 131–32
 - See also* pluralism, in philosophy and physics; quantum mechanics; relativity
- Plamenatz, John Petrov, 36, 37, 48–49, 65, 70, 78
- Plato, 311, 312
- pluralism
 - defined, 135
 - philosophical, and physical reality, 131
 - in philosophy and physics, 123–33
 - discussion on, 133–44
 - trend against, 127–28
- political campaigns. *See* campaigns
- political ideology, 91–92
 - defined, 91
 - See also* ideology(ies)
- politics
 - science, technology, and, 150–51, 153–54
 - See also specific topics*
- Pool, Ithiel de Sola, 40, 44, 45, 48, 65, 67, 69, 76, 79, 82
- Popkin, Richard, 141
- Popper, Karl, 120, 168, 295, 309
- positivism, 7, 159
 - See also* arguments
- power, 280
 - grades of freedom and, 246–48
 - See also* decision-making power
- power interests, clashes of, 19
- “power to” vs. “power over,” 217, 224, 229
- pragmatism, 136, 141
- prejudices, 13, 319–20
- propaganda, 12, 15, 16, 21
 - antidemocratic, 78
 - See also* democracy(ies), what should be repressed in
 - resistance to scientific, 181–82
- pseudoknowledge, 5–6, 334n3–4
- psychoanalysis, Naess's, 301, 303, 314
- psychologism, 120
- psychology, 152
 - See also* behavioral approach
- Puntambekar, S. V., 47, 48
- Pyrrhonian scepticism, 141
- quantum mechanics, 114, 129, 139, 296
- Ranulf, Svend, 40, 41, 45, 47, 48, 70, 76
- rationalism, 294
- rationalist and objectivist thesis, 92
- rationality, 181
 - empirical tests of, 92–93
- reality, 127
- reductionism, 18, 157–59
- relativism, 7, 15, 26
 - crisis of, 10
 - social science as allied with, 11
- relativity, theory of, 114, 116
- religion, 162
 - See also* God
- research, 183–84
 - “action,” 179–80
- research practice, untested, 171
- Rieger, Ladislaus, 67, 77, 79
- Rokkan, Stein, 92, 313
- Röpke, Wilhelm, 40
- Rosenfeld, Leon, 129, 131, 132
- Ross, Alf, 38–41, 44, 48, 54, 55, 76
- Roszak, Theodore, 157–59

INDEX

- rule formulation, 109
- Russell, Bertrand, 7, 66, 67
- Sabine, G. H., 45
- satyāgrahi*. *See under* Gandhi
- scepticism, 15, 305, 310
 - crisis of, 10
 - democracy and, 80–83
 - Pyrrhonian, 141
- Scepticism* (Naess), 314
- Schlesinger, Rudolf, 48, 52–54, 67
- Sneider, Herbert W., 59
- schools
 - dangerous aspects of ideologies fostered in, 20–21
 - See also* education
- science, 11
 - careers in, 148–49
 - cheerful face of, 145–46
 - classical history of pure, 165–66
 - in a community of ecological equilibrium, 163
 - compared to a church, 149
 - defined, 146–47
 - external relations of, as underrated, 175–76
 - as good for anarchists, 183
 - grievances against, 145, 184–86
 - autotelism and intellectualism, 154–55
 - cult of nonscience, 161–62
 - elitism and privileges, 148–49
 - lack of respect for personal dignity, 152–53
 - manipulation, 151–52
 - nature as object of science, 159–61
 - as part of advanced industrial state, 176
 - Pilate reaction to criticism, 149–50
 - pretense of political neutrality, 153–54
 - reductionism and positivism, 157–59
 - science and the powers that be, 147–48
 - science doesn't serve the people, 155–56
 - science serves the state, 148
 - support of technocracy, 150–51
- helps us learn about nonscientific cultures, 179–80
- and joy for all, 183–84
- logic of, 120–21
- not considered neutral, 177
- philosophy of, 119–21, 123–27
- sad face of, 146–47
- of science, 308–09
- small-scale, soft, action-oriented, 179
- for subcultures, 178
- what all kinds of science and research have in common, 179
- See also* metascience; *specific topics*
- scientific enterprise, modern history of, 165–66
- scientific philosophy, illusion of a, 176–77
- scientific propaganda, resistance to, 181–82
- scientific rationality, 176–77
 - absence of a, 181
 - limitations of, and depreciation of non-Western cultures, 156–57
- scientific revolutions, 138
- scientists, status of
 - as excessive, 180–81
 - See also* elitism
- self-destructiveness, 310, 311, 314
- self-respect, 208–10, 319
- self-rule (*swaraj*), 213, 214, 229
- semantics
 - empirical, 312–13
 - See also* democracy(ies)
- Shapiro, James, 149
- Simons, 79
- simplicity rule, 158
- skepticism. *See* scepticism
- Skinner, B. F., 110–11, 152, 158
- Smith, T. V., 40, 82
- social democracy, 61–62
 - See also* democracy(ies), political and other
- Social Democrats in Germany, 9
- social engineering, 150
- social science, 9
 - as more effective in reducing pseudo-knowledge than in building new knowledge, 5–6
 - nihilism, relativism, and “crisis of our age,” 11
- Sommerfield, Arnold, 292
- Sorokin, Pitirim A., 11
- soul, 137
- Soviet Union, 155, 218, 221, 225–28
 - democracy and, 44, 45, 48, 49, 53, 67–68
- Spain and United States, conflict in 1898, 19
- Spinoza, Benedict de, 255–56
 - Buddhist meditation and the way of, 255–57, 272–75
- on cognition, 259, 262, 267–68, 270–71
- between East and West, 256–57
- essential relations, 244–46, 254

INDEX

- Spinoza, Benedict de (*continued*)
Ethics, 237, 239–40, 242, 244, 246–51, 253, 256, 257, 261, 263, 285–90
 equivalences as arguments, 281–83
 propositions of, as arguments in a debate, 277–78
 theses of equivalence, 278–81
 on freedom and determinism, 235, 237–54, 257–60, 263–66, 270, 271, 293, 294
 on God, 263–64, 270, 280, 281, 285–90
 Einstein and, 291–96
 rationalism, 280
 theory of affects, 258, 268, 272–73
 spirituality, 310
 spontaneous experiences, 321–23
 Stevens, S. S., 115
 Stevenson, Charles L., 38–40
 superstructures, 18, 19
swaraj (self-rule), 213, 214, 229
 Sweezy, Paul M., 40, 48, 49, 54, 56, 59, 67, 77, 80–85
 symbolic logic, 120
 sympathy, reactions of, 22
- technocracy, 150–51
 technology, science, and politics, 150–51, 153–54
 ten Hoor, Marten, 44, 54, 82, 84
 Tendulkar, D. G., 204
 Tennessen, Herman, 142
 theories
 established, 169
 and observation, 168
 See also pluralism
 time, 238
 tolerance
 and liberalism toward philosophical schools, 133–35, 143
 See also under democracy(ies)
 Tolman, E. C., 97, 104, 308, 309
 tranquility, 275
 vs. equanimity, 257, 260–62
 Treder, H. J., 138–39
 Trungpa, Chögyam, 261
 truth, 127, 128, 311
Truth as Conceived by Those Who Are Not Professional Philosophers (Naess), 311
- uncertainty, 245
 See also certainty; Heisenberg
 utilitarianism. *See* happiness principle
- validity, 127, 128, 136
 value judgments of ideologies, 13
 value priorities in ideology, deep, 93–95
 value systems, science of description of
 and use in clarification of conflicts, 21–22
 values
 belief in ultimate, 9, 10
 See also under democracy(ies)
 van Dantzig, David, 41, 42–44
 Vigier, Jean-Pierre, 133, 135, 137–38, 140, 142–43
 violence, 47
 and counterviolence, 206, 210–12
 leading to nonviolence, Gandhi and, 203–15
 See also aggression; national aggression
 virtue, 280
- Walter, Emil J., 47, 56
 war
 causes of, 19
 See also aggression; national aggression; nuclear war; World War II
 Weil, Eric, 65, 83
 Wells, H. G., 306
 Wetlesen, Jon, 255, 261
 on eternity, 270–72
 on freedom, 257–60, 263–74
 on God, 263–65, 267, 270
 on internal vs. external effects, 264–66
 on passions, 267–69
 on Spinoza, 256–59, 263–65
 and Buddhism, 272–75
 Whitehead, Alfred North, 329
 Wiener, Norbert, 138
 Wolfson, Harry Austryn, 277, 278
 words, misuse of, 42–43
 See also under democracy(ies); Jørgensen
 World War II, 26, 199–200, 206
 See also Hitler; Norway
 Wright, Quincy, 45, 78, 81, 85
- Yourgrau, Wolfgang, 133–35

Arne Naess was born in Slemdal, Norway, in 1912. One of Norway's foremost philosophers, known especially for his innovative eco-philosophy, Naess began his work with peace studies, global justice, and human rights, and continued with environmental matters. The subjects of his scholarly work and interests include empirical semantics, logic and foundations of science, communication theory and practice, Spinoza, scepticism, gestalt ontology, and normative systems theory. Naess's contributions have been honored by many awards, including Norway's Peer Gynt Award, Denmark's Sonning Prize, the Nordic Council Award for Nature and Environment, the Uggla Prize for Humanistic Studies from Stockholm University, and the Mahatma Gandhi Prize for Non-violent Peace.

Naess graduated from the University of Oslo in 1933, studied in Paris and Vienna, and became the youngest person appointed to a full professorship of philosophy at the University of Oslo, where he worked from 1939 to 1969. Since 1970, he has continued his work as a philosopher, naturalist, and environmental activist. He has been involved with the University of Oslo's Center for Development and the Environment since 1991. The Arne Naess Chair in Global Justice and the Environment is being established at the university to encourage scholars to engage creatively with Naess's work and ideas, in particular to promote new insights into environmental issues and the challenges posed by globalization, and to develop ideas that will help to humanize the difficult and conflict-laden transition to sustainability. Naess holds honorary doctorates from Stockholm University and The Norwegian National University of Sports and Physical Education. He is also an honorary member of The Norwegian Alpine Club and The Norwegian Tourist Association.

In addition to writing countless articles and essays that have been translated into several languages and have appeared in anthologies and journals throughout the world, Naess is the author of numerous books, including *Life's Philosophy: Reason and Feeling in a Deeper World* and *Ecology, Community and Lifestyle*. He was founder and editor of the journal *Inquiry*, and has lectured in many countries. As a mountaineer, Naess was the first to climb Tirich Mir in Pakistan. In the 1930s, he built a hut on Hallingskarvet Mountain in Norway, where he spent much time reflecting upon and relating to the surroundings and native plants of his retreat. His respect and appreciation for diversity, wonderment, and our relationship to

the natural world has continued throughout his life and is reflected in the spirit of his work.

Naess currently lives in Oslo with his wife, Kit-Fai.

Harold Glasser, Ph.D. is Associate Professor of Environmental Studies at Western Michigan University in Kalamazoo, Michigan. He has been a visiting Senior Fulbright scholar at the Center for Development and Environment and Department of Philosophy, University of Oslo; a Resource Person for the United Nations University–Institute of Advanced Study; a visiting researcher at the International Institute for Applied Systems Analysis; and a lecturer at Schumacher College. He has written on environmental philosophy, policy, and planning, as well as green accounting, education for ecocultural sustainability, and campus sustainability assessment.

Alan R. Drengson, Ph.D. is Emeritus Professor of Philosophy at the University of Victoria, in Victoria BC Canada. He is a former Director of Environmental Studies and is currently an Adjunct Professor of Graduate Studies. He is the author of numerous articles, reviews, and books, as well as the editor of three anthologies and the founding editor of two journals, *The Trumpeter: Journal of Ecosophy* and *Ecoforestry*.

Designed by Tamotsu Yagi Design
Composed by Ralph Fowler and BookMatters in Garamond 3
Printed by Krips, Meppel on Cyclus Offset 90 gr/m²
Bound by Callenbach, Nijkerk in Elite and stamped with Colorit 922

Notes

Chapter 4: Deepness of Questions and the Deep Ecology Movement

1. This is a revised and shortened version of an unpublished manuscript, “Deepness of Questions,” written in the 1970s and distributed to only a few people because of its manifest weaknesses. I have revised it because some interest in it persists, and because of the prominent place it received in Warwick Fox’s important book, *Toward a Transpersonal Ecology* (1990).
2. The term *chain* is important. The structure of systematization may be schematized as follows: from premises *A* and *B*, conclusion *C* is drawn. From premises *C* and *D*, conclusion *E* is drawn. From premises *E* and *F*, conclusion *G* is drawn. Thus, a chain of premise-conclusion relations is asserted. The rules of inference that are applied are rough. Requirements of logical validity lead to vast unnecessary complications for people other than professional logicians.
3. The study is reprinted in this SWAN volume; see chapter 18, “Expert Views on the Inherent Value of Nature.”

Chapter 5: The Deep Ecology Movement: Some Philosophical Aspects

1. For more about interspecific community relationships, see my “Self-realization in mixed communities of humans, bears, sheep, and wolves” (1979b [in this volume]).
2. I cannot here do justice to the many authors who have contributed to the understanding of the emerging deep ecology movement. Only three will be mentioned. The newsletters written by George Sessions, Department of Philosophy, Sierra College, Rocklin, CA, are indispensable. There are six letters, April 1976, May 1979, April 1981, May 1982, May 1983, and May 1984, about 140 pages in all. The significant contributions by poets and

artists are fully recognized. Most of these materials are summarized in Sessions 1981. Bill Devall provides a short survey, in part historical, in his potent article “The deep ecology movement” (1980). See also Devall and Sessions 1985. Finally, *The Trumpeter: Journal of Ecosophy* was started in 1983 by Alan Drengson. It was published as a print journal for fourteen years and is now an online journal.

3. I proposed the name Deep, Long-Range Ecology Movement in a lecture at the Third World Future Research Conference (Bucharest, September 1972). “The shallow and the deep, long-range ecology movement” (Naess 1973 [this volume]) is a summary of that lecture. Adherents of the deep ecology movement fairly commonly use the term *deep ecologist*, whereas *shallow ecologist*, I am glad to say, is rather uncommon. Both terms may be considered arrogant and slightly misleading. I prefer to use the awkward but more egalitarian expression “supporter of the deep (or shallow) ecology movement,” avoiding personification. Also, it is common to call deep ecology consistently antianthropocentric. This has led to misconceptions: see my “A defense of the deep ecology movement” (1983). It is better described as nonanthropocentric.
4. The technical term *biospheric* should perhaps be avoided because it favors the scientifically fruitful distinction between biosphere and ecosphere. I use the term *life* in a broad sense common in everyday speech, and may therefore speak of landscapes and larger systems of the ecosphere as “living”—ultimately speaking of the life of the planet. The biospheric point of view referred to in the text is not a narrower point of view than the ecospheric because *bios* is used in a broad sense.
5. Many authors take some steps toward derivational structures, offering mild systemizations. The chapter on environmental ethics and hope in G. Tyler Miller’s *Living in the Environment* (1983) is a valuable start, but the derivational relations are unclear. The logic and semantics of simple models of normative systems are briefly discussed in my “Notes on the Methodology of Normative Systems” (1977a [this volume]). For defense of the thesis that as soon as people assert anything at all we assume a total view, implicit with ontology, methodology, epistemology, and ethics, see my “Reflections About Total Views” (1964 [this volume]). The best and wittiest warning against taking systematizations too seriously is to be found in Søren Kierkegaard’s *Concluding Unscientific Postscript* (1941).
6. Trusting Bill Devall, one may say that “Muir is now understood as the first Taoist of American ecology” (Devall 1982); see also Cohen 1984.
7. For empirical studies of attitudes of “Wilderness-users,” see the survey by

Chris. R. Kent in his thesis *The Experiential Process of Nature Mysticism*, Humboldt State University, 1981.

8. The term *ātman* is not taken in its absolutistic senses, not as a permanent indestructible “soul.” This makes it consistent with those Buddhist denials (the *avātman* doctrine) that the *ātman* is to be taken in absolutist senses. Within the Christian tradition, some theologians distinguish “ego” and “true self” in ways similar to these distinctions in Eastern religion. See, e.g., the ecophilosophical interpretation of the Gospel of Luke in Verney 1976: 33–41.
9. For criticism and defense of this fundamental norm, and my answer, see *In Sceptical Wonder: Essays in Honor of Arne Naess* (Gullvag and Wetlesen 1982). My main exposition of Ecosophy T was originally offered in the Norwegian work *Økologi, samfunn og livsstil* (1976), later published in English as *Ecology, Community, and Lifestyle* (1989). Even there, the exposition is sketchy.

Chapter 6: The Deep Ecology “Eight Points” Revisited

1. The eighteen points of my 1973 paper “The shallow and the deep, long-range ecology movements” (in this volume) smacked too much of the special metaphysics of a younger Naess, as I soon found out. They were discarded in favor of the Eight Points, to the regret of some readers (e.g., Richard Sylvan, among ecophilosophers). The 1973 paper, for example, claimed the ego to be like “knots in the biospherical net or field of intrinsic relations.” I still may use the sentence “All living beings are ultimately one,” which embarrassed Sir Alfred Ayer in our one-hour debate (see Elders 1974: 31).

Chapter 7: Equality, Sameness, and Rights

1. For more about the relevance of tradition and culture, see my “Self-Realization in mixed communities of humans, bears, sheep, and wolves” (1979b [in this volume]); see also Naess and Mysterud 1987.

Chapter 11: A Note on the Prehistory and History of the Deep Ecology Movement

1. See, e.g., Rohrer 1920. For areas outside Europe, see several articles in Tobias 1985. There is, of course, nothing “Aryan” about the cult of mountains.
2. From Henri Frankfort’s “The Birth of Civilization in the Near East” (1959), as quoted in Tobias and Drasdo (1979: 201).

Chapter 12: Antifascist Character of the Eight Points of the Deep Ecology Movement

1. The distinction Green/green corresponds roughly to deep/shallow, deep/reform, interpersonal/nonpersonal ecology (W. Fox 1990). There are several other terminologies closely resembling the above. In short, roughly speaking, a distinction similar to that between a deep and a shallow movement—or better, a reform movement—is widespread within the total ecology movement. This means that we have (descriptive) data to refer to in changing the formulation of the Eight Points. Or, of course, we can propose a different set of points. As reformers of the terminology, we are not working in thin air.

Chapter 16: Should We Try to Relieve Clear Cases of Suffering in Nature?

1. The language of norm 1 (Self-realization!) and hypothesis 1 (The higher the self-realization attained by anyone, the more its increase depends on an increase of the self-realization of others) is introduced in Ecosophy T in order to avoid the more usual unconditional, unrestricted “Yes to life,” whatever its manifestations. Higher self-realization does not mean here anything different from the more complete realization of potentialities related to the self, the specific characteristic of each living being. The world of potentialities of a living being has no very definite borders but may be in continuous or discontinuous development. The conceptual framework is not very different from that of J. von Üexkull as described in my *Erkenntnis und wissenschaftliches Verhalten* (1936).
2. This is according to point 5 of the proposed theoretical platform of the deep ecology movement.
3. See note 2.

Chapter 17: Sustainability! The Integral Approach

1. Among many other statements the following, using only fifteen words, should be mentioned: the requirement that “present [vital] needs must be covered without endangering the capacity for meeting future [vital] needs” (Research Policy Conference 1988: 17; I added the word *vital*).

Chapter 18: Expert Views on the Inherent Value of Nature

1. The Mardøla River in Sogn and Fjordane counties and the Alta River in Finnmark County were regulated to build electricity works in 1970 and 1980.

Both projects were supported by the Norwegian Water Resources and Energy Administration. The author participated in the heated debates on both of these projects.

2. Minister Kåre Kristiansen was a representative for the Christian Democratic Party. Its Norwegian name is Kristelig Folkeparti.
3. The Norwegian name of the movement is Samling om skaperverket.
4. Røros, in southeastern Norway, was once an economically important mining town.
5. The largest lake in Norway; it has been heavily polluted by agricultural and household chemicals.
6. Since 1985, when my questionnaire was distributed, the term *quality of life* (livskvalitet) has undergone a remarkable change of status. It is now a mainstream word, and this may be considered quite an achievement of the environmental movement.
7. These Scandinavian environmental organizations are in Norwegian named Fremtiden i våre hender and Alternativ Norden. They are concerned, to a large extent, with the nuts and bolts of how to achieve an ecologically sound way of life in Western societies.
8. This is another Norwegian environmental organization, called Folkeveit in Norwegian. Common Sense is particularly well known for its pacifist program and the number of lawsuits brought against some of its members for publishing sensitive military information.
9. The author received much mass-media attention after being carried away by policemen from demonstrations protesting the regulation of the Mardøla and Alta rivers in 1970 and 1980.

Chapter 20: Politics and the Ecological Crisis: An Introductory Note

1. See “The eight points,” one of the suggestions for formulating a (general, more or less abstract) platform for supporters of the deep ecology movement, in Devall and Sessions 1985: 70–73.
2. For a discussion of the principles of ecological diplomacy, see Carroll 1988.

Chapter 21: The Politics of the Deep Ecology Movement

1. Portions of this paper, written in 1985, were incorporated into the English edition of my *Ecology, Community, and Lifestyle* (1989).
2. Note that the Ecology party in Britain has since changed its name to the Green party.

Chapter 22: The Three Great Movements

1. The term *deep ecology* is said here to be used in a loose way in order to emphasize that my own efforts to formulate a platform of the deep ecology movement in eight points requiring about 200 words should not be taken too seriously. There are thousands of people who might be unmoved by one or more of the points I formulated but who nevertheless support the third movement as I conceive it. It would be arrogant and pretentious of me to compare the deep ecology movement with the historically tremendously important and strong movements against war, exploitation, and suppression *if* the term were to be closely associated with my modest effort in the way of terminology.

For examples of characterizations other than the eight points that George Sessions and I have proposed, see the chapter “Deep Ecology” in Schwarz and Schwarz (1987), where Michael McCloskey, Donald Worster, Neil Evernden, Frithjof Capra, and others are quoted.

Chapter 23: The Encouraging Richness and Diversity of Ultimate Premises in Environmental Philosophy

1. My own interpretation of Spinoza in its relations to the deep ecology movement is suggested in “Spinoza and ecology” (1977b). A combined interpretation and reconstruction may be found in Naess 1975 (SWAN VI). “Self-subsistence” here refers to the dynamic development of the Self, the subsistence or perseverance *in se* (in itself) as opposed to *in alio* (in other). Other interpretations are also in harmony with the main positions within radical environmentalism, such as those of B. Russell and G. Sessions (main feature: God is *completely* immanent).
2. I have discussed Lloyd’s interpretation in detail in Naess 1980: 313–25.
3. The conception of “determined in its essence” is elaborated in Naess 1974c. Are there other plausible or interesting interpretations of the term *determinare*? There are, of course, and I hope the number will not decrease. A list of close connotations (“equivalences”) between terms appears in Naess 1974a, obtainable from the Institute of Philosophy, University of Oslo.
4. Gandhi laments deforestation and its possible influence on climate, advocates a religious foundation of the man-nature relation, and defends animal rights. See Power 1990.
5. In Davidson’s text, the expression “a language” is of importance. I do not feel that I understand well enough what he means by the expression to declare agreement or disagreement with members of the set of sentences in

which he uses the expression. I am puzzled. This admission is made without any feeling of shame, perhaps because it is a prevalent feeling when I try to compare what at least *prima facie* seem to be deeply different total views. (Probably I should feel a little ashamed because of a belief that if Davidson may be said to “have” a total view, it will not be deeply different from mine.)

Chapter 24: The Third World, Wilderness, and Deep Ecology

1. See Greenpeace 1989–90: 53. Waste disposal procedures have improved, but “many more changes are still needed if stations are to comply with the new waste disposal guidelines contained in ATCM Recommendation SV<i>i–3</i>. Indeed, most stations have not even met the minimal guidelines agreed to by the treaty States in 1975.”
2. Quoted from a valuable survey of the wilderness issues by George Sessions (1992).
3. “In contrast to the conventional lobbying efforts of environmental professionals based in Washington, [Earth First!] proposes a militant defense of ‘Mother Earth,’ and unflinching opposition to human attacks on undisturbed wilderness” (Guha 1989: 74).

Chapter 25: Cultural Diversity and the Deep Ecology Movement

1. There is an unfortunate confusion of terminology surrounding the term *cultural anthropology*. In continental Europe what in this article is called cultural anthropology is usually called *ethnology* and in Great Britain *social anthropology*. In Europe the term *ethnography* is sometimes used to describe subject matter clearly falling under the American usage of *cultural anthropology*. Its antonym is *physical anthropology*. In continental Europe the term *philosophical anthropology* covers many subjects of cultural anthropology and also subjects of ecosophy in general, such as the debate about essential differences between human beings and animals. G. P. Gusdorf (1998) furnishes an excellent survey of the terminological developments until about 1970.
2. The distinctions between deep and shallow cultural differences, and the importance of articulated total views as expressions of the deep differences, are elaborated in my *Which World Is the Real World?* (2004 [SWAN III]). Cultural anthropology should, I think, be distinguished from less comprehensive units of research: economic, technological, social, and (the central European) philosophical anthropology. In my terminology, a culture is the largest hu-

man unit and corresponds in a certain very moderate way to the unit of species in biology.

Before the 1960s, discussions about cultures were considered unscientific within certain scientific communities. Expressions such as “the peoples of the world” were favored. Expressions such as “the consumerism people” do not, however, mean the same as “the consumerism culture” (cf. Fox and Lears 1983).

3. Some works of interest when we approach the new cultural anthropology and problems of deep diversity are Bateson 1972; Geertz 1973; Goodenough 1964; Keesing 1974, 1976; and Sahlins 1972.
4. The eight-point list of 1984 published in Devall and Sessions (1985) naturally needs revision. The list is, nevertheless, convenient for a short survey of complex materials.
5. Sometimes, for example, when formulating point 4 of the Eight Points, I neglected to consider in a realistic way what would be *common* views about population within the deep ecology movement. The first part is found to be acceptable, “The flourishing of human life and cultures is compatible with a substantial decrease of the human population,” but scarcely the second, “The flourishing of nonhuman life requires such a decrease.” In my experience, few supporters of the deep ecology movement have clearly thought about this, and if they have, they have either hoped for a way to give more room to other living beings or felt that there are no mild, acceptable policies for reducing the human population. Reluctantly, they see the decrease of the *richness* of nonhuman life as inevitable, the diversity as maintainable. In any case, point 4 should be reformulated.

What holds for the 1985 version of the Eight Points holds also for the 1971 version of the Eighteen Points: the characteristics of the deep ecology movement are not consistently separated from views within Ecosophy T.

Chapter 26: Population Reduction: An Ecosophical View

1. The all-sided, mature human being has a need to “combine argumentation” regarding the richness and diversity of Earth. That is the reason for adding the word *narrow*.
2. For more about this classification, see Naess 1989: chap. 3.
3. *Perfection* (from Latin *per-facere*) does not necessarily imply something absolute-in-its-perfection, but rather wholeness, a practicably attainable level of performance and state of being.
4. “In my opinion, the most serious aspect of a population decline is the regional one. Some production and consumption capital will be idle (at least temporary).

ily) if the population decline is spread out too unevenly, or if it hits communities which are so small that the economic disadvantages of a further population decline can be disastrous. In other areas or cities, the economic gains by a reduced population could be considerable. This is a very important area for economic research and possibly for policy action” (Thonstad 1982: 21).

5. I have profited most from Tore Thonstad’s “Perspectives of European Demographic Evolution: Expected Major Economic Consequences” (1982).

Chapter 28: Self-Realization in Mixed Communities of Human Beings, Bears, Sheep, and Wolves

1. From the above use of “realization of potentialities” it is clear that the concept is wider than most concepts of self-realization in Western philosophy and psychology—for example, that of Maslow. It is more closely linked to concepts of life fulfillment and Eastern conceptions, among them Gandhi’s concept of self-realization. For more about this, see my *Gandhi and Group Conflict* (1974b [SWAN VI]) and *Ecology, Community, and Lifestyle* (1989). The concept used in *T* is also close to Spinoza’s “increase in power,” wherein *potentia* is linked to capability (*posse*), that is, capacity to act with *oneself* as adequate cause. I do not pretend that these remarks are more than initial formulations in a dialogue on self-realization.
2. “Two Factor Egalitarianism assumes the relevance of two matters: (1) level or importance of interests to each being in a conflict of interests, and (2) the psychological capacities of the parties whose interests conflict” (VanDeVeer 1979: 68).
3. What follows is inspired by the practical work of the bear inspector, and ecophilosopher, Ivar Mysterud.

Chapter 29: Philosophy of Wolf Policies I: General Principles and Preliminary Exploration of Selected Norms

1. Different cultures at different times have held significantly different attitudes toward nature, and within each culture, each nation, and each community there are differences of philosophic importance. On identification, see Naess 1985b: 256–70. On changes of attitude toward nature as evidenced in the new environmental movements, see Van Liere and Dunlap 1980: 181–97; Dunlap and Van Liere 1984. Collicott (1983) provides one of the best overviews of attitudes toward nature in American Indian cultures. Different cultures have had different concepts of nature, and some have not had any concepts similar to the one we are talking about, the conservation of nature.

NOTES TO PAGES 303–11

2. Accounts of wolves in broad perspective may be found in Fiennes 1976; Lopez 1978; Hall and Sharp 1978; and Allen 1979.
3. This concept of “mixed community” was introduced in Naess 1979b: 231–41 (in this volume).
4. For accounts of plant and animal community concepts, refer to Cody and Diamond 1975; Strong et al. 1984.
5. For population estimates, see Myrberget 1969; Heggberget and Myrberget 1979. The most recent survey is reported by Sørensen et al. 1984.
6. The authors have another paper in preparation exploring these fields (Mysterud and Naess 1990).
7. Norm conflicts very similar to the one seen in Norwegian wolf ranges are found wherever white people settled in North America with herds of husbandry animals. Even in areas with no husbandry, but where locals depend on cervid hunting, conflicts may arise—for example, in Alaska (see Carbyn 1983: 1–135).
8. For preliminary discussions of economy-enhancing animal survival, see Mysterud 1985.
9. Properly expressed, they form sentences with exclamation marks. Priorities behind “wise actions” in wildlife management should be ecologically correct, socially and politically acceptable, and economically profitable. In management procedures based on such diverse strategies, the landscape will profit most.
10. Details about the concept of normative system as conceived here may be found in Naess 1977a: 64–79 [in this volume].
11. The term *suffering* is ambiguous, of course. Sometimes it is made to cover complex states of affairs—for example, the suffering of a thwarted ambition—but in A_1 we think of rather more narrow notions, with simple pain as a core connotation.
12. For discussion of how carnivore attacks affect sheep herds and sheep-holder activity, see Mysterud 1979:123–61, 1980: 233–41.
13. For a valuable bibliography of life-quality research, see Chamberlain 1985: 345–401. The term *self-realization* is a somewhat more general and derivationally more basic term than *life quality*, but, of course, it is an intimately related one.
14. On the causes of researchers in conservation biology not announcing their value priorities, see Naess 1986c: 512–13.
15. In what follows we do not consistently distinguish a sentence from its meaning. The term *statement* has a convenient degree of ambiguity, sometimes referring to meaning, sometimes being used as a near synonym for *sentence*. This

holds true for all sciences, including mathematics and logic. Their sentences (expressing the statements) can, just as in the case of normative systems, be divided into two kinds: sentences ending in a period and sentences, such as rules, ending with an exclamation mark.

16. For a survey of sheep-holding and its implications for carnivore management planning in Norway, see Vaag, Haga, and Granstuen 1986: 1–162.
17. The opposition to letting wolves live where they now are in Norway is for natural reasons fiercely fought in many local communities. A well-developed “No to wolf” campaign is being organized locally in Hedmark in southern Norway and in adjacent Värmland in southern Sweden. If local communities within parts of the present-day wolf range were given the right to decide, all wolves might be exterminated, provided there were enough able hunters.
18. A basic problem in human environments is maintenance of animal and plant populations of species that now have low, no, or negative economic value (e.g., pests and predators). We are, therefore, concerned about creating an economy on endangered species (conservation capitalism) to increase the probability of their survival, which we plan to discuss in another paper, “Philosophy of wolf policies III: Emergency wolf management, applications and conclusions” (Mysterud and Naess [never written]).
19. Norms A_7 to A_9 are special applications of the first three general norms, a set of eight points. The eight points with comments were originally published in the newsletter *Ecophilosophy* (May 1984) but are now to be found also in Soulé 1980.
20. People in the materially richest countries cannot be expected to reduce overnight their excessive interference with the nonhuman world to a moderate level. The stabilization and reduction of the human population will take time. Interim strategies must be developed; but this in no way excuses the prevailing complacency—the extreme seriousness of our current situation must first be realized. The longer we wait, the more drastic will be the measures needed.
21. For more about Ecosophy T, refer to appendix A in *Deep Ecology* (Devall and Sessions 1985).
22. For more on self-realization as a fundamental norm, see Naess 1986e (in this volume).
23. See note 2.
24. In some Canadian national parks, field trips are being provided so that people can listen to and see wolves in the wild. This is part of a management strategy to improve people’s image of wolves. See Stardom 1983.

25. The philosophically interesting area of self-verifying and self-refuting hypotheses is also relevant. The local population that feels threatened by wolves knows that people with power to impose wolf protection entertain conflicting hypotheses about the seriousness of antiwolf sentiments locally. It is, of course, in the interest of locals, as conceived by them, to convince others that the hypothesis of a very high degree of seriousness in antiwolf attitudes is verified. Prowolf people are therefore silenced. It is not difficult to see how this can influence the behavior of locals and result in verification of the hypothesis of universal, intense opposition to wolves. This state of affairs must be considered if and when central authorities plan to investigate public opinion in the affected regions.

Chapter 32: Letter Sent October 1971 to the King of Nepal

1. Naess and his fellow climbers did not go to the summit of Gauri Shankar. They stopped at about 6,000 meters. In so doing, they were observing the letter as well as spirit of the message that Naess sent to the King of Nepal.

Chapter 33: An Example of a Place: Tvergastein

1. See, e.g., articles in Tobias and Drasdo 1979; LaChapelle 1978.
2. For a *theory* of the world as concrete contents, see Naess 1985c (in SWAN X).

Chapter 36: The South Wall of Tirich Mir East

1. The figures 25,263 feet and 25,237 feet have been taken from what is easily the most detailed map (1:126,720) available of this district, that of Brigadier R. H. Thomas, Surveyor-General of India, published in 1931. On other maps, different heights are to be found. The Polish expedition had only two maps, both produced by the Survey of India, and to a scale of 1:1,000,000. One of them is described by the Geographical Section General Staff, War Office, London, edition 1956, and gives the height 25,426 feet. We consider it correct to retain the figures from the survey map through the General Staff in 1949, viz., 25,263 feet for the West Peak and 25,237 feet for the East Peak.
2. An account of the Norwegian expedition in 1950 was published as *Tirich Mir* (1952); it has been out of print since 1953. A short account may be found in *Alpine Journal* 58 (May 1951).
3. An early development in downhill ski-racing was based on similar considerations. In the beginning no gates were used, but after a while this way of pre-determining a certain racecourse was introduced to prevent the undue and

very dangerous risks that some were taking as competition got stiff. It was my wish to impose such “gates” on our expedition strategy.

Chapter 37: Spinoza and Attitudes Toward Nature

1. Some may judge what I say unhistorical, or claim that I make Spinoza modern, but I look at a text by Spinoza as I look at a score by Bach—open to many interpretations. In all humility I will say that although my interpretations of the text of the *Ethics* can be upheld, they are certainly not the only plausible interpretations. I make a distinction between talking about the historical Spinoza as a person and presenting an interpretation of one of his texts. This, again, is different from presenting a reconstruction inspired by Spinoza.
2. Even Francis of Assisi (1968: 118), the saint of ecology, was no friend of the body: “*Nous devons avoir en haine nos corps, avec les vices et les peches. . .*” As used by Spinoza, the term *corpus* permits one to ask Francis, What about the corporeal events corresponding to your faith? and what about “*les vices et les peches*” of your spirit?
3. The medieval users of the distinction *natura naturans/natura naturata* and *naturare/naturari* may be said, with Gueroult and others, to have introduced the concept of immanence of the divine cause in its effect. Characteristic of Spinoza is that he uses the distinction “to express his concept of absolute immanence, which those terms never had signified” (Gueroult 1968: 567). Speaking about the immanence of God in Nature (and Nature in God) as a Spinozic conception, I take it to be absolute at the level of denotation or extension. At the narrower level of connotation or intention, immanence—if the term can be used at this level at all—is not absolute. If it were, we would have general substitutability of *Deus* and *Natura* in the *Ethics*. This is hardly Spinozic.
4. Some researchers seem to attribute to Spinoza the logical superstition that the content of parts II–IV of the *Ethics* can be deduced from part I, but all the way through the *Ethics* new insights are communicated:

The definition of God in part I does not refer to the noninfinite aspect of God. This aspect is something new, although it does not contradict what is said in part I. Its heading may be read *De Deo quatenus infinito*.

In general, a certain freedom in our attitude toward the *exposition* of Spinoza’s system is called for, as long as we do not postulate that every one of its formulations and its order of presentation directly express insights of the third kind. G. Fløistad (1986) warns against any such assumption.
5. Proposition 24 may be interpreted in a quantitative manner (more things are understood), in a qualitative manner (a higher degree is intended: things are

understood in the third way), or in a way that combines both aspects. The second sentence of the proof of proposition 25 provides evidence for a qualitative interpretation. On the other hand, Spinoza *stresses multiplicity and diversity*, especially in connection with the many parts of the body and the many (more than eighty) classes of emotions. It is also important that understanding God or Nature includes understanding of the third kind, intuitive understanding of *particular* things. It is implausible that it is equivalent to a qualitatively more and more perfect understanding of one particular thing.

6. The adjective *totus* is perhaps better rendered by “totality” than by “whole,” if we wish to stress that the third way of understanding is that of seeing single particular things from the point of view of the whole. If we wish to stress the unity of the mind with a whole that has an aspect of indivisibility and changelessness, then “whole” may be a better translation than “totality.”
7. Is “*natura*” here identical extensionally with “essence”? That would imply that one’s essence may be changed through self-causation.
8. *Perfection* is not a term introduced in the *Ethics* by means of a separate definition. When not applied to Nature, it admits of degrees. Joy is an emotion through which mind is said to become *more* perfect (IIIP11Sch). Whatever its connotation, “more perfect” cannot be separated in denotation from “more powerful.” Compare the proof of proposition 41: “Joy . . . is the emotion through which the power of the body to act, increases or is furthered.” The relation to action, and therefore to understanding, is intimate. The more perfect is the more active and the less passive (VP40). In short, “more perfect than” cannot, in denotation, be separated from a number of other basic relations. The application of the term to Nature or God clearly is on par with the application to God of terms like *love* (*amor*), *intellect*, and *mind*. That is, it cannot be taken in any precise sense known from phenomena in Nature.
9. The term *maximum* rather than *optimum* diversity presupposes a concept of diversity that is common, but not universal, among ecologists.
10. Unconditional acceptance of the axiom of perfection is not possible for me. Or, more precisely, it is possible only through dubious interpretations of the terms *perfection* and *Nature*. Spinoza helped himself with his theory of nonexistence of *adequate* ideas about evils. Although I find that theory dubious as well, I have not come across a better one. What follows in this essay is a thoroughly revised version of parts of my article “Spinoza and ecology” (1978).
11. The occurrences of the words *bonus* and *malus* in the *Ethics* admit to various conceptualizations. According to part IV, definition 1, “*x* is good for *y*” does

not mean more than “*x* is useful for *y*” or “*x* is known by *y* to be useful for *y*.” Spinoza does not *say* anything to the effect that freedom, perfection, and the other “in itself” states are good. They enter the system both as something that things actually or in fact or with necessity strive to realize and as unquestioned desirables.

An extreme naturalism is consistent with one particular well-known set of equivalences: “. . . we strive after nothing because it is good, but on the contrary we call that good which we strive for” (IIP39Sch). It is to be noted, however, that Spinoza does not say that we call something good *because* we strive for it. Good is not an effect caused by striving, and the striving is not just for self-preservation in the narrow sense, but for freedom, virtue, and power. See also note 13, below.

12. For a detailed exposition of the equivalence of these terms, see Naess 1974a, 1975 (SWAN VI).
13. According to part III, proposition 6, *every* thing, as far as it is in itself, strives to preserve its being. I take the term *perseverar*, translated as “preserve,” to mean something much more active than just to survive. Therefore, I accept as equivalent “*x* increases in power” and “*x* increases in level of self-preservation.”
14. Good relations to others are obtained, *inter alia*, through generosity and other forms of noninjury (*abim̐sā*) (*Ethics*, IVP46Sch1; IVP72). “Hatred can never be good” (IVP45); that is, it can never be useful to us (IVDef1). Therefore, it cannot cause an increase in power or understanding.
15. It must be conceded that Spinoza holds that we cannot be the friends of animals or include them in our society. Only human beings can be friends of human beings and be members of our societies (see *Ethics*, part IV, AppCh26). Because we are more powerful than animals, we have in a sense more rights. We are able to use animals as we see fit, and one cannot issue laws against killing them. Most animals lack the power to use us (cf. IVP37Sch1 and AppCh26).
16. The basic position of “understanding” (*intelligere*) in Spinoza’s system is seen from its relation to “causing.” If something is caused adequately through something else, it is adequately understood through that something, and vice versa. Activeness is internally related to understanding because the specific activity of the mind is understanding. It is also related to increases in power and freedom. In this way, not only intuitive understanding of the highest (third) kind, but also the understanding of nature, promotes power, freedom, joy, and perfection.
17. The panpsychism of Spinoza is expressed in the *Ethics* (see IIP13Sch). Individuals other than human beings are animated (*animata*), but in different degrees (*diversis gradibus*). Spinoza even (in the proof of IIP1) uses the expression “the minds of other things” (*aliorum rerum mentes*). About the dif-

ference in appetites and joys between various kinds of animals, see IIP57Sch.

18. Spinoza does not say so directly, but I think he would deny rationality of any kind to beings other than human beings. He speaks, however, about the “virtue or power” of animals, and he more or less identifies virtue with rationality: “. . . to act virtuously is nothing else than to act according to reason” (*Ethics*, IVP56 proof). Although Spinoza may be interpreted in various ways regarding the relation of animals to man, we have been interested in the main trend of his reasoning.

Chapter 38: Spinoza and the Deep Ecology Movement

1. Spinoza uses the term *causa immanens* only twice, in part I of the *Ethics* (IP18) and in Letter 73, where there is a positive reference to Saint Paul.
2. One may speak about the finite God (*Deus modificatus*) of Spinoza as well as about the infinite (see Naess 1981: 120–26) [in SWAN IX]. Researchers mostly take the first part of the *Ethics* more seriously than the last—the account of human freedom and power as genuine parts of God’s. Doing this, they seem not to be aware of the limitation of mere formal logical priority. They ignore *Deus modificatus* because it occurs only in the later parts. Deep ecology theorizing neither thrives on Man apart, nor on God apart.
3. It is important that Spinoza adds that VP24 follows from IP25Cor, that is, from the thesis of modes *expressing* God’s attributes. It supports a radically immanent interpretation of *Deus*.
4. The distinction between content and abstract structure is worked out in Naess 1985c: 417–28 (in SWAN IX).
5. For more on human intervention to decrease suffering, see Naess 1991 (in SWAN X).
6. In Naess 1974a, I quote 243 relations of equivalence among key terms.
7. I have commented on *perseverare* and its relation to Hobbes in Naess 1980. In what follows, some formulations are borrowed from that article. In part IV of the *Ethics*, the term *conservare* is sometimes used as a synonym for *perseverare*. (IVP18Sch: reason demands [*postulat*] that everyone endeavors to conserve its being [*esse*], in so far as it is in itself.) I think “conserve” is too passive; I shall accordingly write and talk as if *perseverare* were used consistently by Spinoza.
8. Some central places in the *Ethics* show the way from Spinoza’s *Ethics* to his political writings. Concerning reason, see IIP40Sch2. From the terminology there, IVP35 follows: “In so far men live under the guidance of reason, to that extent only do they always agree in nature.” This is queer if one does not take

into account Spinoza's somewhat special use of the term *ratio*. Concerning freedom, reason, mutual aid, peace, and friendship, he says: "Only free men are truly advantageous (*invicem utilissimi*) to one another and united by a maximally close bond of friendship" (IVP71, proof). Here the term *freedom* must be interpreted in accordance with what is said about adequate causation and activeness (IIIDef2) and the resulting close relation between the terms *freedom* and *reason*: "a free human being, that is, a man who lives under the guidance of reason" (IVP67Dem).

From these indications it is fairly clear that a *Spinozistic social utopia* is one conceived to furnish the best conditions of freedom for everybody—"freedom" being interpreted in his way. What, then, is the best kind of practical politics? The question is open. I do not think Spinoza's political work can offer much here.

Chapter 39: A Systematization of Gandhian Ethics of Conflict Resolution

1. Declaration published in all Indian newspapers, October 30, 1940.

Chapter 40: The World of Concrete Contents

1. I take Galileo as representative of the neither-nor answer because of his crucial position in the development of modern physics. There are, of course, a number of slightly or significantly different concepts of primary and secondary qualities. In the context of this paper, the essential aspect of primary qualities is their status as inherent in the objects themselves. Locke elaborates the "neither warm nor cold" answer in his *Essays Concerning Human Understanding*.
2. The crucial passage concerning Protagoras in Sextus's *Outlines of Pyrrhonism* I, chapter 32, runs as follows:

Now, this man says that matter is a state of flux. As it flows, continuous additions may arise to take the place of the effluxions, and the senses undergo transformation and alteration in accordance with one's age and with other conditions of the body. He says also that the grounds of all appearances lie in the matter, so that in itself its power enables it to be all those things which appear to all beings capable of apprehension. And men apprehend different things at different times because the conditions they are in differ. The man who is in a natural state, he says, apprehends those material substances which can appear to those who are in a natural state, and a person who is in an unnatural state apprehends those things which can appear to those in an unnatural state. And the same reasoning applies as well to differences depending on one's age, one's sleeping or waking state, and every kind of condition.

The most interesting interpretation of “matter,” as far as I can see, is such that it comprises all that man or any other being ever can experience in any state. The possibility is not excluded that other sensitive beings can experience what human beings cannot. This interpretation of the passage is, unfortunately, not consistent with what comes next in chapter 32:

Therefore man becomes, according to him [Protagoras], the criterion of the existence of things. For all things, in so far as they appear to men, also exist, while those things that appear to no man do not exist at all.

Strangely enough, “matter” seems, if not dependent upon, at least extensionally equivalent to the potential states of human beings; matter cannot comprise anything that cannot be apprehended by man, and vice versa.

3. The nominalism I subscribe to is a consequence of the philosophy of hypothetical-deductive systems formulated in Naess 1972 (SWAN IV).
4. The term *ontology* is useful for naming that part of one’s philosophy or science that tells “what there is.” In the sciences of physics and astronomy a hundred years ago, there were atoms, ether, planets, stars, and forces acting upon these so-called objects. Today, the ontology proposed by astronomers and physicists is more complicated, and they are constantly modifying it. It is usually called a classification of objects, not ontology, but the function is clearly to classify what there is according to their sciences.

Ontology as part of a philosophy, and not just a group of sciences, is of course a much more controversial affair. It must somehow accommodate the objects that the sciences talk about, or give reasons for their nonexistence. What are the criteria of “existence”? Different views are open for discussion.

Until recently the (basic) ontology of physics could be understood by nonphysicists. Now this is scarcely the case. The popularizations are wonderfully well written, but they do not furnish adequate understanding. Some would lament this situation, but I think it is the most positive thing that has happened for a long time: it makes it clearer to all concerned that any account we offer about the world we live in (*Lebenswelt*) must be independent of the ontology of modern physics.

5. The author is grateful to the Research School of Social Sciences at the Australian National University for giving him the opportunity to be a Visiting Fellow, and to discuss and rewrite (in September 1984) what he has thought about the relation of the *Lebenswelt* to “objective” reality.

Chapter 41: Gestalt Ontology and Gestalt Thinking

1. It may be questioned whether the third factor, the mediational, really deserves placement as something as fundamental as the subjective and objective.

If we use a sunrise as an example of an object, the colors are said to depend very much on the medium, the air. If colored glasses are used, new complications are introduced. At this point it is advisable to distinguish two factors: the object intended when talking about “the sun when rising,” and the medium “between the sun and the subject” used to explain changing colors of the sun as experienced by the subject.

2. What is said here is based on a version of the “both-and” theory of Protagoras as interpreted by Sextus Empiricus. Compare Naess 1985c (in SWAN X).

Chapter 42: Reflections About Total Views

1. Thus, Lonergan (1992: 329) writes:
 “Am I a knower?” The answer, “Yes,” is coherent, for if I am a knower, I can know that fact. But the answer, “No,” is incoherent, for if I am not a knower, how could the question be raised and answered by me? No less, the hedging answer, “I do not know,” is incoherent. For if I know that I do not know, then I am a knower; and if I do not know that I do not know, then I should not answer. Here, the answer “no” is construed as being equivalent to “I know I am not a knower”—and the answer “I do not know” as being equivalent to “I know that I do not know.” Such an equivalence would only hold, however, provided nothing, or next to nothing, is added cognitively by adding “I know that—” to a sentence.
2. I have changed the translation at some points.
3. This quotation is used by Polanyi in a similar context in “The stability of beliefs” (Polanyi 1952: 218).
4. For criticism of the doctrine that different logics can be described in the way attempted by some social scientists, see Naess et al. 1954: 203 ff.

Chapter 43: Notes on the Methodology of Normative Systems

1. Norwegian National Research Council, Project A79.24-15.
2. Some authors of central importance to the deep ecology movement are: Gregory Bateson, Kenneth Boulding, Ottar Brox, Rachel Carson, Barry Commoner, Erik Dammann, Rene Dubos, Paul R. and Anne H. Erlich, Clarence J. Glacken, Edward Goldsmith, Ivan Illich, Sigmund Kvaloy, Ian McHarg, Joseph Meeker, E. J. Mishan, Ivar Mysterud, Marshall Sahlins, E. F. Schumacher, Hartvig Saerta, and P. W. Zapffe.
3. What holds of theories in science holds of normative systems. For elaboration of the trichotomy theory/systematization/version terminology used in this article, see Naess 1972 (SWAN IV): chap. 3. On definiteness of intention, see Naess 1966 (SWAN VII): 34 ff.

4. For a short exposition, see Naess 1966 (SWAN VII); for a more technical treatment, see Naess 1953 (SWAN I).

Chapter 44: Paul Feyerabend—A Green Hero?

1. For recent literature see Fox 1990.
2. Feyerabend's characterization of Imre Lakatos as a "fellow anarchist" caused some indignation and protest. Lakatos's views, however, were basically rather close to those labeled "anarchist" by Feyerabend (and perhaps by nobody else). As an argument in favor of this interpretation I shall quote Lakatos's conclusion in reference to the pluralist and possibilist views in my work referred to above: "I did not previously realize how far our philosophical views coincided and it was a great pleasure for me that we are close allies" (Letter of November 4, 1968). The possibilist approach I take to be a little more "anarchist" in Feyerabend's terminology than in Lakatos's own.

Chapter 45: Self-Realization: An Ecological Approach to Being in the World

1. This and the following quotations from Gandhi are taken from my *Gandhi and Group Conflict* (1974b [SWAN VI]), where the metaphysics of self-realization is treated more thoroughly. For further detailed discussions of identification, see my "Identification as a source of deep ecological attitudes" (1985b) and "Man apart and deep ecology: A reply to Reed" (1990).

Chapter 46: The Connection of "Self-Realization!" with Diversity, Complexity, and Symbiosis

1. "Oneness with Nature," "nature mysticism."
2. The above is not intended to make others support Ecosophy T, and especially not to make a definite sketchy, diagrammatic version of Ecosophy T acceptable to others. That would be counterproductive. Insofar as others study figure 8 (page 485), however, I am interested in profiting from their interpretations. If, against my expectation, time-consuming study is undertaken, I should point out that my methodology is heavily dependent on three factors: a peculiar semantics popularized in my *Communication and Argument* (1966 [SWAN VII]); a life strategy pointing out that as human beings we implicitly presume we have a total view, including a fundamental value-priority strategy, every time we make a decision, day or night (1964 [in SWAN X]); and use of the natural science idea of models (and simulations) as a purely heuristic instrument when dealing with insurveyably complex phenomena

such as worldviews (*Leben und Weltanschauungen*). Although the diagrammatic presentation of Ecosophy T does not have the form of a hypothetical-deductive system, it shares with that system a common characteristic, that of a model.

Chapter 54: Sustainable Development and Deep Ecology

1. On the so-called deep ecology movement, see Devall and Sessions 1985; Naess 1986b (in this volume).
2. For an ecologically inspired proposal for unilateral disarmament, see Naess 1986a: 425–36 (in SWAN IX).

Chapter 55: Industrial Society, Postmodernity, and Ecological Sustainability

1. The word *sustainable* has been used in many senses, some of which are remote from that of “ecologically sustainable.” Therefore, we shall not drop the reference to ecology.

References

Books or articles appearing in the *Selected Works of Arne Naess* are identified by (SWAN XX) at the end of the entry, where XX refers to the pertinent volume number.

- Adorno, Theodor W., Else Frenkel-Brunswick, D. J. Levison, and R. N. Sanford. 1950. *The Authoritarian Personality*. New York: Harper and Bros.
- Allen, D. L. 1979. *Wolves of Minong: Their Vital Role in a Wild Community*. Boston: Houghton Mifflin.
- Allport, Gordon W. 1947. "Guideline for research in international co-operation." *Yearbook of Social Issues* 3.
- Angell, R. C. 1957. "Discovering paths to peace." In *The Nature of Conflict*. New York: UNESCO.
- Armstrong-Buck, Susan. 1986. "Whitehead's metaphysical system as a foundation for environmental ethics." *Environmental Ethics* 8: 241–59.
- Ascher, Charles S. 1950. "The development of UNESCO's program." *International Organization* 4.
- Auxter, Thomas. 1979. "The right not to be eaten." *Inquiry* 22: 221–30.
- Barney, Gerald. 1981. *Global 2000 Report to the President of the United States*. Charlottesville, VA: Blue Angel.
- Bateson, Gregory. 1972. *Steps to an Ecology of Mind*. New York: Balantine Books.
- Bennett, David H. 1984. "The is/ought dichotomy and environmental ethics." Paper read at Australasian Association of Philosophy Conference, Canberra, Australia.
- Bentham, Jeremy. 1973. *An Introduction to the Principles of Morals*. New York: Hafner.
- Bookchin, Murray. 1980. *Toward an Ecological Society*. Montreal: Black Rose Books.

REFERENCES

- . 1982. *The Ecology of Freedom: The Emergence and Dissolution of Hierarchy*. Palo Alto, CA: Cheshire Books.
- Bookchin, Murray, Dave Foreman, and Steve Chase. 1991. *Defending the Earth: A Dialogue Between Murray Bookchin and Dave Foreman*. Boston, MA: South End Press.
- Boyer, Carl B. 1968. *A History of Mathematics*. New York: Wiley.
- Brown, Lester, and Edward Wolf. 1988. "Reclaiming the future." In *State of the World*, 1988. Washington, D.C.: Worldwatch Institute, p. 186.
- Callicott, J. Baird. 1982. "Hume's is/ought dichotomy and the relation of ecology to Leopold's land ethic." *Environmental Ethics* 4: 163–74.
- . 1993. "The search for an environmental ethic." In *Matters of Life and Death*, 3d ed., edited by Tom Regan. New York: McGraw-Hill.
- Capra, Fritjof, and Charlene Spretnak. 1984. *Green Politics: The Global Promise*. New York: Dutton.
- Carbyn, L. N., ed. 1983. "Wolves in Canada and Alaska." *Canadian Wildlife Service Report Series* 45: 1–135.
- Carroll, John E., ed. 1988. *International Environmental Diplomacy*. Cambridge: The University Press.
- Carson, Rachel. 1962. *Silent Spring*. Boston: Houghton Mifflin.
- Chamberlain, K. 1985. "Value dimensions, cultural differences, and the prediction of perceived quality of life." *Social Indicators Research* 17: 345–401.
- Christiansen, Bjørn. 1959. *Attitudes Towards Foreign Affairs as a Function of Personality*. Oslo: University of Oslo Press.
- Clark, Stephen R. L. 1979. "The rights of wild things." *Inquiry* 22: 171 ff.
- Cody, Martin L., and Jared M. Diamond, eds. 1975. *Ecology and Evolution of Communities*. Cambridge: Harvard University Press, Belknap Press.
- Cohen, Michael. 1984. *The Pathless Way: John Muir and American Wilderness*. Madison: University of Wisconsin Press.
- Collicott, J. D. 1983. "Traditional American Indian and traditional Western European attitudes toward nature: An overview." In *Environmental Philosophy*, edited by R. Elliot and A. Gare. University Park: Pennsylvania State University Press.
- Collingwood, Robin G. 1948. *An Essay on Metaphysics*. Oxford: Clarendon Press.
- Cooley, Charles Horton. 1964. *Human Nature and the Social Order*. New York: Schocken.
- Crossman, Richard H., ed. 1949. *The God That Failed*. New York: Arno Press.
- Daily, Gretchen C., and Paul R. Ehrlich. 1992. "Population, sustainability, and Earth's carrying capacity." *Bioscience* 42: 761–71.

REFERENCES

- Davidson, Donald. 1984. "On the very idea of a conceptual scheme." In *Inquiries into Truth and Interpretation*. Oxford: Clarendon Press.
- Devall, Bill. 1980. "The deep ecology movement." *Natural Resources Journal* 20.
- . 1982. "John Muir as deep ecologist." *Environmental Review* 6.
- Devall, Bill, and George Sessions. 1985. *Deep Ecology: Living as if Nature Mattered*. Salt Lake City: Peregrine Smith Books.
- Diwakar, Ranganath R. 1946. *Satyāgraha: The Power of Truth*. Bombay: Hind Kitabs.
- Dobson, Andrew. 1990. *Green Political Thought*. London: Unwin Hyman.
- Drengson, Alan. 1989. *Beyond Environmental Crisis*. New York: Peter Lang.
- Dryzek, John S. 1987. *Rational Ecology: Environment and Political Economy*. New York: Blackwell.
- Dunlap, Riley E., and Kent D. Van Liere. 1984. "Commitment to dominant social paradigm and concern for environmental quality." *Social Science Quarterly* 65: 1013–28.
- Durning, Alan T. 1991. "Asking how much is enough." In *State of the World, 1991*. Washington, D.C.: Worldwatch Institute, pp. 153–69. Republished as *How Much Is Enough?* New York: Norton, 1992.
- Eckersley, Robyn. 1992. *Environmentalism and Political Theory: Toward an Ecocentric Approach*. Albany: State University of New York Press.
- Elders, Fons, ed. 1974. *Reflexive Water: The Basic Concerns of Mankind*. London: Souvenir Press.
- Enzenberger, Hans Magnus. 1973. "Zur Kritik der politischen Ökologie." *Kursbuch* 33.
- Farvar, M. Taghi, and John P. Milton, eds. 1972. *The Careless Technology: Ecology and International Development*. New York: Natural History Press.
- Feyerabend, Paul K. 1975. *Against Method: Outline of an Anarchistic Theory of Knowledge*. London: Thetford Press.
- . 1977. "Expert in a free society." In *Unter dem Pflaster liegt der Strand* (Under the plaster is the beach), vol. 3. Berlin: Karin Kramer.
- . 1978. *Science in a Free Society*. London: NLB.
- Fiennes, Richard. 1976. *The Order of Wolves*. New York: Bobbs-Merrill.
- Fløistad, Guttorm. 1986. "Reality as perfection: Some remarks on Spinoza's concept of lifeworld." In *Studia Spinozana*, vol. 2: *Spinoza's Epistemology*, edited by W. Klever et al. Alling: Walther and Walther.
- Fox, Richard Wightman, and T. J. Jackson Lears, eds. 1983. *The Culture of Consumption: Critical Essays in American History, 1880–1980*. New York: Pantheon Books.

REFERENCES

- Fox, Stephen. 1981. *John Muir and His Legacy*. Boston: Brown and Co.
- Fox, Warwick. 1990. *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalism*. Boston: Shambhala.
- Francis of Assisi, Saint. 1968. *Documents, écrits et premières biographies*, edited by Theophile Desbonnets and Damien Vorreux. Paris: Editions Franciscaines.
- French, William C. 1995. "Against biospherical egalitarianism." *Environmental Ethics* 17: 39–57.
- Fromm, Erich. 1956. "Selfishness, self-love, and self-interest." In *The Self: Explorations in Personal Growth*, edited by Clark E. Moustakas. New York: Harper Colophon Books.
- Galtung, Johan, and Arne Naess. 1955. *Gandhis politiske etikk* (Gandhi's political ethics). 2nd ed. 1968. Oslo: Johann Grundt Tanum.
- Geertz, Clifford. 1973. *The Interpretation of Cultures*. London: Hutchinson.
- Glacken, Clarence J. 1967. *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century*. Berkeley and Los Angeles: University of California Press.
- Gladstone, A. I. 1962. "Relationship orientation and processes leading to war." *Background* 6: 13–25.
- Goldsmith, Edward. 1972. *Blueprint for Survival*. Harmondsworth, UK: Penguin.
- Goodenough, Ward H., ed. 1964. *Explorations in Cultural Anthropology*. London: McGraw-Hill.
- Goodin, Robert E. 1992. *Green Political Theory*. Cambridge, MA: Polity Press.
- Greenpeace. 1989–90. *Greenpeace Antarctic Expedition 1989/90*. Washington, D. C.: Greenpeace.
- Gueroult, Martial. 1968. *Spinoza*, vol. 1: *Dieu*. Paris: Aubier.
- Guetzkow, Harold. 1955. *Multiple Loyalties*. Princeton: Center for Research on World Political Institutions, Princeton University.
- Guha, Ramachandra. 1989. "Radical American environmentalism and wilderness preservation: A Third World critique." *Environmental Ethics* 11.
- Gullvag, Ingemund, and Jon Wetlesen, eds. 1982. *In Sceptical Wonder: Essays in Honor of Arne Naess*. Oslo: Oslo University Press.
- Gusdorf, Georges P. 1998. "Anthropology." *Encyclopaedia Britannica*, 15th ed., *Macropedia*, vol. 1.
- Hall, R. L., and H. S. Sharp. 1978. *Wolf and Man: Evolution in Parallel*. New York: Academic Press.
- Hallen, Patsy. 1987. "Making peace with nature: Why ecology needs ecofeminism." *The Trumpeter: Journal of Ecosophy* 4(3): 3–14. Reprinted in *The Deep Ecol-*

REFERENCES

- ogy Movement: An Introductory Anthology*, edited by Alan Drengson and Yuichi Inoue. Berkeley, CA: North Atlantic Books, 1995, pp. 198–218.
- Hargrove, Eugene C. 1985. "The role of rules in ethical decision making." *Inquiry* 28.
- . 1989. "Callicott and the foundations of environmental ethics." *Environmental Ethics* 11.
- Heggberget, T., and S. Myrberget. 1979. "The status of bears, wolverines, wolves and lynxes in Norway during the 1970s." *Viltrapport* 9: 37–45.
- Henderson, Hazel. 1981. *The Politics of the Solar Age*. Garden City, NY: Doubleday/Anchor.
- Ibsen, Henrik. 1959. *John Gabriel Borkman*. In *Henrik Ibsen: The Last Plays*, introduced and translated by William Archer. New York: Hill and Wang.
- International Union for Conservation of Nature and Natural Resources (IUCN). 1980. *World Conservation Strategy: Living Resource Conservation for Sustainable Development*. Gland, Switzerland: IUCN.
- James, William. 1890. *The Principles of Psychology*. London: Macmillan.
- Kant, Immanuel. 1949. *Groundwork of the Metaphysics of Morals*. New York: Liberal Arts Press.
- . 1963. *Critique of Pure Reason*, translated by Norman Kemp Smith. London: Macmillan; New York: St. Martin's.
- . 1992. *Versuch einiger Betrachtungen über den Optimismus* (An attempt at some reflections on optimism). In *Theoretical Philosophy, 1755–1770*. Cambridge, UK: The University Press, pp. 71–83.
- Katzner, Kenneth. 1977. *The Languages of the World*. London and New York: Routledge, chaps. 4-1, 4-3. (Revised 1986.)
- Kaufman, A. S. 1971. "Wants, needs and liberalism." *Inquiry* 14: 191–206.
- Keesing, Roger M. 1974. "Theories of culture." *Annual Review of Anthropology* 3.
- . 1976. *Cultural Anthropology*. New York: Holt.
- Kelman, Herbert C. 1954. "Relevance of social research in war prevention: A symposium." *Journal of Human Relations* 2(3).
- Kent, Christopher R. 1981. *The Experiential Process of Nature Mysticism*, master's thesis. Humboldt State University, Arcata, CA.
- Kierkegaard, Søren. 1941. *Concluding Unscientific Postscript*, translated by David Swenson and Walter Lowrie. Princeton: Princeton University Press.
- Knutsen, Kåre. 1974. *Dyrenes rettigheter* (The rights of animals). Oslo: Dreyer.
- Kropotkin, Peter A. 1955. *Mutual Aid: A Factor in Evolution*. Boston: Extending Horizon Books.

REFERENCES

- Kuhn, Thomas. 1970. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.
- LaChapelle, Dolores. 1978. *Earth Wisdom*. Silverton, CO: Guild of Tutors Press.
- Lackner, Stephan. 1984. *Peaceable Nature: An Optimistic View of Life on Earth*. San Francisco: Harper and Row.
- Leopold, Aldo. 1966. *Sand County Almanac and Other Essays*. New York: Oxford University Press.
- . 1987 (originally 1949). *A Sand County Almanac, and Sketches Here and There*. New York: Oxford University Press.
- Levison, David J. 1957. "Authoritarian personality and foreign policy." *Conflict Resolution* 1.
- Lewis, Charlton T. 1951. *A Latin Dictionary for Schools*. London: Oxford University Press.
- Lloyd, Genevieve. 1980. "Spinoza's environmental ethics." *Inquiry* 23: 213–25.
- Lonergan, Bernard J. 1992. *Insight: A Study of Human Understanding*, edited by F. E. Crowe and R. M. Doran. Toronto: University of Toronto Press.
- Lopez, B. H. 1978. *Of Wolves and Men*. New York: Scribner.
- Malthus, Thomas. 1872. *An Essay on the Principle of Population*, 7th ed. London: Dent.
- Mander, Jerry, and Edward Goldsmith, eds. 1996. *The Case Against the Global Economy, and for a Turn Toward the Local*. San Francisco: Sierra Books.
- Mannheim, Karl. 1952. *Ideology and Utopia*. London: Routledge and Kegan Paul.
- Maslow, A. H. 1970. *Motivation and Personality*. New York: Harper and Row.
- Marx, Karl. 1970. *The German Ideology*. London: Lawrence and Wishart.
- Masson-Oursel, Paul. 1926. *Comparative Philosophy*. London: International Library of Psychology, Philosophy and Scientific Method.
- McCloskey, Henry John. 1979. "Moral rights and animals." *Inquiry* 22: 25–54.
- . 1983. *Ecological Ethics and Politics*. Totowa, NJ: Rowman and Littlefield.
- Mead, George Herbert. 1934. *Mind, Self, and Society*. Chicago: University of Chicago Press.
- Milbrath, Lester W. 1984. *Environmentalists: Vanguard for a New Society*. Albany: SUNY Press.
- Miller, G. Tyler. 1983. *Living in the Environment*, 3d ed. Belmont, CA: Wadsworth.
- Mills, C. Wright. 1967. *Power, Politics and People: The Collected Essays of C. Wright Mills*, edited by Irving L. Horowitz. London and New York: Oxford University Press.

REFERENCES

- Murphy, Gardner. 1953. *In the Minds of Men: The Study of Human Behavior and Tensions in India*. New York: Basic Books.
- Myrberget, Svein. 1969. "The Norwegian population of wolf." *Meddelelser tra Statens Viltundersokelser* 32(2): 1–17.
- . 1970. "The Norwegian population of wolverine and lynx." *Meddelelser tra Statens Viltundersokelser* 2(33): 1–35.
- Mysterud, Ivar. 1979. *Viltrapport* 9: 123–61.
- . 1980. "Bear management and sheep husbandry in Norway." *Bear Biology Association Conference Series* 3:233–41.
- . 1985. "Economic and philosophical considerations on wolf survival." Paper read at CIC Symposium, Lisbon, March.
- Mysterud, Ivar, and Arne Naess. 1990. "Philosophy of wolf policies II: Selected aspects of wolf-human relationships." Unpublished ms.
- Naess, Arne. 1936. *Erkenntnis und wissenschaftliches Verhalten*. Oslo: Norwegian Academy of Sciences, Inaugural Dissertation.
- . 1953. *Interpretation and Preciseness: A Contribution to a Theory of Communication*. Oslo: Norwegian Academy of Science and Jacob Dybwad. (SWAN I)
- . 1964. "Reflections about total views." *Philosophy and Phenomenological Research* 25: 16–29. (in SWAN X)
- . 1966. *Communication and Argument*. London: Allen and Unwin (Oslo: Universitetsforlaget, 1966). (SWAN VII)
- . 1972. *The Pluralist and Possibilist Aspect of the Scientific Enterprise*. Oslo: Universitetsforlaget (London: Allen and Unwin). (SWAN IV)
- . 1973. "The shallow and the deep, long-range ecology movement: A summary." *Inquiry* 16: 95–100. (in SWAN X)
- . 1974a. *Equivalent Terms and Notions in Spinoza's "Ethics"*. Oslo: Institute of Philosophy, University of Oslo.
- . 1974b. *Gandhi and Group Conflict*. Oslo: Universitetsforlaget. (SWAN V)
- . 1974c. "Is freedom consistent with Spinoza's determinism?" In *Spinoza on Knowing, Being and Freedom*, edited by J. G. van der Bend. Assen: Van Gorcum. (in SWAN IX)
- . 1975. *Freedom, Emotion and Self-Subsistence: The Structure of a Central Part of Spinoza's "Ethics"*. Oslo: University of Oslo Press. (SWAN VI)
- . 1976. *Økologi, samfunn og livsstil: Utkast til en Økosofi*, 5th ed. Oslo: Universitetsforlaget.
- . 1977a. "Notes on the methodology of normative systems." *Methodology and Science* 10: 64–79. (in SWAN X)

REFERENCES

- . 1977b. "Spinoza and ecology." *Philosophia* 7: 45–54.
- . 1978. "Spinoza and ecology." In *Speculum Spinozanum 1677–1977*, edited by S. Hessing. London: Routledge and Kegan Paul.
- . 1979a. "Modesty and the conquest of mountains." In *The Mountain Spirit*, edited by Michael C. Tobias and H. Drasdo. New York: Overlook Press. (in SWAN X)
- . 1979b. "Self-realization in mixed communities of humans, bears, sheep, and wolves." *Inquiry* 22: 231–41. (in SWAN X)
- . 1980. "Environmental ethics and Spinoza's *Ethics*: Comments on Genevieve Lloyd's article." *Inquiry* 23: 313–25.
- . 1981. "Spinoza's finite God." *Revue Internationale de Philosophie* 135: 120–26. (in SWAN IX)
- . 1983. "A defense of the deep ecology movement." *Environmental Ethics* 5.
- . 1985a. "Holdninger til mennesker, dyr og planter (Attitudes toward men, animals, and plants)." *Samtiden* 94: 68–76.
- . 1985b. "Identification as a source of deep ecological attitudes." In *Deep Ecology*, edited by M. Tobias. San Diego: Avant Books. (Reprinted in *Radical Environmentalism*, edited by Peter List. Belmont, CA: Wadsworth 1993).
- . 1985c. "The world of concrete contents." *Inquiry* 28: 417–28. (in SWAN X)
- . 1986a. "Consequences of an absolute *no* to nuclear war." In *Nuclear Weapons and the Future of Humanity: The Fundamental Questions*, edited by Avner Cohen and Steven Lee. Totowa, NJ: Rouman and Allanheld. (in SWAN IX)
- . 1986b. "The deep ecology movement: Some philosophical aspects." *Philosophical Inquiry* 8: 10–31. (in SWAN X)
- . 1986c. "Intrinsic value: Will the defenders of nature please rise?" In *Conservation Biology: The Science of Scarcity and Diversity*, edited by M. E. Soulé. Sunderland, MA: Sinauer Associates.
- . 1986d. "Limited definiteness of 'God' in Spinoza's system: Answer to Heine Siebrand." *Neue Zeitschrift für systematische Theologie und Religionsphilosophie* 28: 275–83.
- . 1986e. "Self-realization: An ecological approach to being in the world." Keith Roby Memorial Lecture in Community Science, Murdoch University, Australia, March 12. Reprinted in *The Trumpeter: Journal of Ecosophy* 4(3). (in SWAN X)
- . 1987. *Eksperternes syn på naturens egenverdi*. ("Expert Views on the Inherent Value of Nature.") Trondheim, Norway: Tapir Forlag. (in SWAN X)
- . 1989. *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and revised by David Rothenberg. Cambridge, UK: Cambridge University Press.

REFERENCES

- . 1990. "Man apart and deep ecology: A reply to Reed." *Environmental Ethics* 12: 185–92.
- . 1991. "Should we try to relieve clear cases of extreme suffering in nature?" *Pan Ecology* 6. (in SWAN X)
- . 1993. "Beautiful action: Its function in the ecological crisis." *Environmental Values* 2. (in SWAN X)
- . 2004. *Which World Is the Real World?* (original in Norwegian). Amsterdam: Kluwer. (SWAN III)
- Naess, Arne, K. Kvaløe, and J. Christophersen. 1954. *Democracy, Ideology and Objectivity: Studies in the Semantics and Cognitive Analysis of Ideological Controversy*. Oslo: University of Oslo Press (Oxford: Blackwell, 1956).
- Naess, Arne, and Ivar Mysterud. 1987. "Philosophy of wolf policies I: General principles and preliminary exploration of selected norms." *Conservation Biology* 1: 22–34. (in SWAN X)
- Neurath, Otto, et al., eds. 1936. *Philosophy of Science*, vol. 1. Chicago: University of Chicago Press. Republished 1938 as *Encyclopedia of Unified Science*.
- Norton, Bryan G. 1991. "Thoreau's insect analogies: Or, why environmentalists hate mainstream economists." *Environmental Ethics* 13.
- Nuyen, A. T. 1991. "A Heideggerian existential ethics for the human environment." *Journal of Value Inquiry* 25.
- Oelschlaeger, Max. 1991. *The Idea of Wilderness*. New Haven: Yale University Press.
- Passmore, John. 1974. *Man's Responsibility for Nature*. London and New York: Duckworth and Scribner.
- . 1975. "The treatment of animals." *Journal of History of Ideas* 26, no. 2: 195–218.
- Pauhlke, Robert C. 1989. *Environmentalism and the Future of Progressive Politics*. New Haven: Yale University Press.
- Pimlott, D. M. 1975. "Wolves." *Proceedings of the First Working Meeting of Wolf Specialists and First International Conference on Conservation of the Wolf*. Morges, Switzerland: IUCN.
- Polanyi, Michael. 1952. "The stability of beliefs." *British Journal for the Philosophy of Science* 3: 217–32.
- Ponting, Clive. 1992. *The Green History of the World*. New York: St. Martin's Press.
- Porritt, Jonathon. 1984. *Seeing Green: The Politics of Ecology Explained*. Oxford: Basil Blackwell.
- Power, Shahed Amed. 1990. *Gandhi and Deep Ecology*, Ph.D. diss., Salford University, England.

REFERENCES

- Rawls, John. 1971. *A Theory of Justice*. Cambridge: Harvard University Press (Oxford: Oxford University Press, 1971).
- Regan, Tom. 1979. "An examination and defense of one argument concerning animal rights." *Inquiry* 22: 189–219.
- . 1981. "The nature and possibility of an environmental ethics." *Environmental Ethics* 3: 19–34.
- Research Policy Conference on Environment and Development. 1988. *One Earth—One World*. Oslo: Norwegian Research Council for Science and the Humanities.
- Rohrer, Max. 1920. "Die Berge in Mythos, Kult und Dichtung der arischen Inder." *Deutsche Alpen Zeitung*.
- Sahlins, Marshall. 1972. *Stone Age Economics*. New York: Aldine.
- Schilpp, P. A., ed. 1949. *Albert Einstein: Philosopher-Scientist*. Evanston, IL: Library of Living Philosophers.
- Schwarz, Walter, and Dorothy Schwarz. 1987. *Breaking Through*. Dartington, UK: Green Books.
- Sessions, George. 1981. "Shallow and deep ecology: A review of the philosophical literature." In *Ecological Consciousness*, edited by Robert C. Schultz and J. Donald Hughes. Washington, D.C.: University Press of America, pp. 391–462.
- . 1992. "Ecocentrism, wilderness, and global ecosystem protection." In *The Wilderness Condition: Essays on Environmental and Civilization*, edited by Max Oelschlaeger. San Francisco: Sierra Club Books.
- Sextus Empiricus. 1933. *Outlines of Pyrrhonism*, translated by R. G. Bury. London: Loeb Classic Library, Heinemann.
- Sinclair, A. R. E., and M. Norton-Griffiths, eds. 1979. *Serengeti: Dynamics of an Ecosystem*. Chicago: University of Chicago Press.
- Smart, J. J. C. 1961. "Colours." *Philosophy* 36: 128–42.
- Smith, M. B., and J. B. Casagrande. 1953. "The Cross-cultural education projects: A program report." *Social Science Research Council Items*, no. 3.
- Smith, Mick. 1999. "To speak of trees: Social constructionism, environmental values, and the future of deep ecology." *Environmental Ethics* 21: 359–76.
- Snyder, Gary. 1990. *The Practice of the Wild*. San Francisco: North Point Press.
- Sørensen, O. J., P. Wabakken, T. Kvan, and A. Landa. 1984. *Viltrappport* 34: 54–59.
- Soulé, Michael E. 1980. "Thresholds for survival: Maintaining fitness and evolutionary potential." In *Conservation Biology*, edited by M. E. Soulé and B. A. Wilcox. Sunderland, MA: Sinauer Associates.
- . 1985. "What is conservation biology?" *BioScience* 35: 727–34.
- . 1992/93. "A vision for the meantime." In *Wild Earth*, special issue: 7–8.

REFERENCES

- , ed. 1986. *Conservation Biology: The Science of Scarcity and Diversity*. Sunderland, MA: Sinauer Associates.
- Soulé, Michael E., and Bruce A. Wilcox, eds. 1980. *Conservation Biology: An Ecological-Evolutionary Perspective*. Sunderland, MA: Sinauer Associates.
- Spinoza, Baruch. 1955. *Ethics*. (Includes *Treatise on the Improvement of the Understanding*.) New York: Hafner.
- . 1989. *Theological Political Treatise*, translated by S. Shirley. Leiden: Brill. (Indianapolis: Hackett, 2001).
- Strigge, T. L. S. 1979. "Metaphysics, physicalism, and animal rights." *Inquiry* 22: 101–43.
- . 1984. "Non-human rights: An idealist perspective." *Inquiry* 27: 439–61.
- Stardom, R. R. 1983. *Canadian Wildlife Service Report Series* 45: 30–34.
- Stcherbatsky, F. Th. 1974. *The Central Conception of Buddhism*. Delhi: Motilal Banarsidass.
- Stone, Christopher D. 1974. *Should Trees Have Standing?* Los Altos, CA: William Kaufmann.
- Strong, D. R., D. Simberloff, L. G. Abele, and A. B. Thistle, eds. 1984. *Ecological Communities: Conceptual Issues and the Evidence*. Princeton: Princeton University Press.
- Thonstad, Tore. 1982. "Perspectives of European Demographic Evolution: Expected Major Economic Consequences." In *European Population Conference 1982*. Council of Europe, Strasbourg, EPC (82) 10-E.
- Thoreau, Henry. 1949. *The Journal*, vol. 13, edited by B. Terrey and F. H. Allen. Boston: Houghton Mifflin.
- . 1971. *Walden*, edited by J. L. Sharley. Princeton: Princeton University Press.
- Tobias, Michael C., ed. 1985. *Deep Ecology*. San Diego, CA: Avant Books.
- Tobias, Michael C., and Harold Drasdo, eds. 1979. *The Mountain Spirit*. New York: Overlook Press.
- United Nations. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford: Oxford University Press.
- United Nations (UNESCO). 1978. *Universal Declaration of Animal Rights*. (Proclaimed in Paris on October 15, 1978 at UNESCO Headquarters.)
- Vaag, A. B., A. Haga, and H. Granstuen. 1986. *Forslag til Landsplan for Forvaltning av Bjorn, Serv og Ulvi Norge. Viltrapport* 39: 1–162.
- Vaihinger, Hans. 1935. *The Philosophy of "As If"*. London: Routledge and Kegan Paul.

REFERENCES

- VanDeVeer, Donald. 1979. "Interspecific justice." *Inquiry* 22: 55–70.
- Van Liere, Kent D., and Riley E. Dunlap. 1980. "The social bases of environmental concern: A review of hypotheses, explanations, and empirical evidence." *Public Opinion Quarterly* 44: 181–97.
- Verney, Stephen. 1976. *Into the New Age*. Glasgow: Collins.
- von Uexkull, J. 1909. *Umwelt und Innenwelt der Tiere*. Berlin.
- . 1920. *Theoretische Biologie*. Berlin. (English translation, New York, 1926.)
- Wagenen, Richard W. van. 1952. *Research in the International Organization Field*. Princeton, NJ: Princeton University.
- Walsby, Harold 1947. *The Domain of Ideologies*. Glasgow: W. MacLellan.
- Watson, Richard A., and Philip M. Smith. 1970. "The limit: 500 million." *Focus Midwest* 8(52): 25–28.
- Wendelbo, Per. 1952. *Tirich Mir: The Norwegian Expedition*. London: Hodder and Stoughton.
- Wilson, Edward O. 1975. *Sociobiology: The New Synthesis*. Cambridge, MA: Belknap Press.
- Witoszek, N. and A. Brennan, eds. 1999. *Philosophical Dialogues: Arne Naess and the Progress of Philosophy*. Lanham, MD: Rowman & Littlefield.
- Wolff, Robert Paul. 1963. *Kant's Theory of Mental Activity*. Cambridge, MA: Harvard University Press.
- Wolfson, Harry Austryn. 1958. *The Philosophy of Spinoza*, vol. 2. New York: Ridian Books.
- Wyld, Henry Cecil Kennedy. 1932. *The Universal Dictionary of the English Language*. New York: Dutton.
- Yinger, J. Milton. 1946. *Religion in the Struggle for Power: A Study in the Sociology of Religion*. Durham, NC: Duke University Press.

Comprehensive Bibliography of Arne Naess's Works in English

This bibliography is based on information compiled by Harold Glasser and Kit-Fai Naess. It is a fairly complete record of Naess's works published in English, including some that were coauthored. For a more complete list of his work published and unpublished, see the website of the Center for Development and the Environment (SUM) associated with the University of Oslo.

By Arne Naess

1936. *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge acquisition and science as behavior). Oslo: Norwegian Academy of Sciences, Inaugural Dissertation.
- 1938a. "Common sense and truth." *Theoria* 4: 39–58. (in SWAN VIII)
- 1938b. "Contribution to the discussions of the International Kongres für Einheit der Wissenschaft." *Erkenntnis* 7 (1937/38): 369–70 (D. C. Williams); 370 (J. H. Woodger); 371 (K. Grelling, P. Oppenheim); 382 (M. Kokoszynska); 384–86 (Walter Hollitscher).
- 1938c. *Truth as Conceived by Those Who Are Not Professional Philosophers*. Oslo: Norwegian Academy of Sciences and Jacob Dybwad.
- 1947a. "Abstracts of work by Georg Hygen, Ole Koppand, and Peter Wessel Zapffe." *Philosophic Abstracts* 7: 6–7.
- 1947b. "Citizenship as a subject!" *Universitas* (special issue) 2: 1–2.
- 1948a. *Notes on the Foundations of Psychology as a Science*, vol. 9, Stencil. Filosofiske Problemer, edited by Arne Naess. Oslo: Oslo University.
- 1948b. *Objectivity of Norms: Two Directions of Precization*, vol. 9, Stencil. Filosofiske Problemer, edited by Arne Naess. Oslo: Oslo University.
1949. "Towards a theory of interpretation and preciseness." *Theoria* 15: 220–41.
- 1950a. "The function of ideological convictions." In *Tensions That Cause Wars* (*Common statement and individual papers by a group of social scientists brought to-*

COMPREHENSIVE NAESS BIBLIOGRAPHY

- gether by UNESCO*), edited by H. Cantril. Urbana: University of Illinois Press, pp. 257–98. (in SWAN IX)
- 1950b. “Norwegian mountaineers in Chitral.” *Pakistan Horizon* 3: 3,5.
- 1951a. “Appendix I: The UNESCO questionnaire on ideological conflicts concerning democracy.” In *Democracy in a World of Tensions*, edited by Richard McKeon with the assistance of Stein Rokkan. Chicago: University of Chicago Press, pp. 513–21.
- 1951b. “The Norwegian expedition to Tirich Mir, 1950.” *Alpine Journal* (London) 58 (May): 6–15.
1952. “Towards a theory of interpretation and preciseness.” In *Semantics and the Philosophy of Language*, edited by Leonard Linsky. Urbana: University of Illinois Press, pp. 248–69.
- 1953a. *An Empirical Study of the Expressions ‘True,’ ‘Perfectly Certain,’ and ‘Extremely Probable.’* Oslo: Jacob Dybwad.
- 1953b. *Interpretation and Preciseness: A Contribution to the Theory of Communication.* Oslo: Jacob Dybwad. (SWAN I)
- 1953c. “Philosophers and research in the soft sciences.” In *Proceedings of the XIth International Congress of Philosophy, Volume VI: Philosophy and Methodology of the Sciences of Nature, Brussels, 20–26 August, 1953*. Amsterdam: North-Holland, pp. 255–59.
1954. “Husserl on the apodictic evidence of ideal laws.” *Theoria* 20: 53–63. (in SWAN VIII)
1956. “Synonymity and empirical research.” *Methodos* 8: 3–22.
- 1957a. “Synonymity as revealed by intuition (Discussion of B. Mates’s *Synonymity*).” *Philosophical Review* 66: 87–93.
- 1957b. “What does ‘testability’ mean? An account of a procedure developed by Ludvig Løvestad.” *Methodos* 9: 229–37.
- 1958a. “Editorial Statement.” *Inquiry* 1: 1–6.
- 1958b. “Logical equivalence, intentional isomorphism and synonymity as studied by questionnaires, sacred to the memory of Gerrit Mannoury.” *Synthese* 10a (1956–58): 471–79. (in SWAN VIII)
- 1958c. “Systematization of Gandhian ethics of conflict resolution.” *Journal of Conflict Resolution* 2: 140–55. (in SWAN X)
- 1959a. “Do we know that basic norms cannot be true or false?” *Theoria* 25: 31–55. (in SWAN VIII)
- 1959b. *Philosophy Within a World University* (a memorandum drawn up for the Conference at Brissago, Switzerland, September 1959). Stuttgart: International Society for the Establishment of a World University.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1960a. "Empiricism and freedom in theorizing (Notes on P. K. Feyerabend's mimeographed manuscripts *How to Be a Good Empiricist* and *Explanation, Reduction, and Empiricism*)." Unpublished manuscript: 11 pages.
- 1960b. "Typology of questionnaires adapted to the study of expressions with closely related meanings." *Synthese* 12: 481–94. (in SWAN VIII)
- 1961a. "Can knowledge be reached? (Lecture delivered at Oxford University, October 1960)." *Inquiry* 4: 219–27. (in SWAN VIII)
- 1961b. "The inquiring mind. Notes on the relation between philosophy and science (prepared in close cooperation with Eivind Storheim)." *Inquiry* 4: 162–89.
- 1961c. "The inquiring mind. Notes on the relation between philosophy and science (prepared in close cooperation with Eivind Storheim)" (reprint of 1961b). *Philosophy Today* 5: 185–204.
- 1961d. "Metaempirical reflections." Unpublished manuscript.
- 1961e. "A study of 'or'." *Synthese* 13: 49–60. (in SWAN VIII)
- 1962a. *Equivalent Terms and Notions in Spinoza's "Ethics"*. Oslo: Filosofisk Institutt, Universitet i Oslo.
- 1962b. "Nonmilitary defense." In *Preventing World War III*, edited by Quincy Wright, William M. Evan, and Morton Deutsch. New York: Simon and Schuster, pp. 123–35. (in SWAN IX)
- 1962c. "Typology of questionnaires adopted for the study of expressions with closely related meanings" (reprint of 1960b). In *Logic and Language: Studies Dedicated to Rudolf Carnap on the Occasion of His Seventieth Birthday*, edited by Yehoshua Bar-Hillel et al. Dordrecht: Synthese Library, pp. 206–19. (in SWAN VIII)
- 1962d. "We still do not know that norms cannot be true or false: A reply to Dag Österburg." *Theoria* 28: 205–09. (in SWAN VIII)
1963. "Knowledge and definiteness of intention." Unpublished manuscript: 10 pages.
- 1964a. "Definition and hypothesis in Plato's 'Meno'." *Inquiry* 7: 231–34.
- 1964b. "Nonmilitary defense and foreign policy." In *Civilian Defense*, edited by Adam Roberts. London: Peace News Pamphlet, pp. 33–43.
- 1964c. "Pluralistic theorizing in physics and philosophy." *Danish Yearbook of Philosophy* 1: 101–11.
- 1964d. "Reflections about total views." *Philosophy and Phenomenological Research* 25: 16–29. (in SWAN X)
- 1964e. "Was it all worth while? Review of P. de Vomécourt: *Who Lived to See the Day: France in Arms, 1940–1945*." *Peace News* (March 6).

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1965a. *Gandhi and the Nuclear Age*, translated by Alastair Hannay. Totowa, NJ: Rowman.
- 1965b. "Nature ebbing out." Unpublished manuscript. (in SWAN X)
- 1965c. "Science as behavior: Prospects and limitations of a behavioral metascience." In *Scientific Psychology: Principles and Approaches*, edited by B. Wolman and E. Nagel. New York: Basic Books, pp. 50–67. (in SWAN IX)
- 1965d. "The south wall of Tirich Mir East." *Himalayan Journal* 26: 97–106. (in SWAN X)
- 1966a. *Communication and Argument: Elements of Applied Semantics*. Second printing 1981. Translated by Alastair Hannay. Oslo: Universitetsforlaget. (SWAN VII)
- 1966b. *Elements of Applied Semantics*, translated by Alastair Hannay. London: Allen and Unwin.
- 1966c. "Psychological and social aspects of Pyrrhonian scepticism." *Inquiry* 9: 301–21.
- 1967a. "Civilian defense and foreign policy." In *Civilian Defense: An Introduction*, edited by T. K. Mahadevan et al. New Delhi: Gandhi Peace Foundation, pp. 102–16.
- 1967b. "Notes on some similarities between Spinoza on the one hand and Kierkegaard, Heidegger, Sartre on the other." Unpublished manuscript.
- 1967c. "Physics and the variety of world pictures." In *Grundfragen der Wissenschaften, und ihre Wurzeln in der Metaphysik*, edited by P. Weingartner. Salzburg: Pustet, pp. 181–88.
- 1967d. *Sanskrit for Generalists* (Sanskrit for generalists). Institute for Philosophy, mimeograph.
- 1968a. *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay. Chicago: University of Chicago Press.
- 1968b. "Kierkegaard and the values of education." *Journal of Value Inquiry* 12: 196–200. (in SWAN VIII)
- 1968c. *Scepticism*. London and New York: Humanities Press. (SWAN II)
- 1969a. "Freedom, emotion, and self-subsistence: The structure of a small, central part of Spinoza's *Ethics*." *Inquiry* 12: 66–104.
- 1969b. *Hvilken Verden er den Virkelige?* (Which world is the real one?), vol. 37. Filosofiske Problemer. Oslo: Universitetsforlaget. (SWAN III)
- 1970a. "Can violence lead to non-violence: Gandhi's point of view." In *Gandhi, India and the World: An International Symposium*, edited by Sibnarayan Ray. Philadelphia: Temple University Press, pp. 287–99. (in SWAN IX)
- 1970b. "The conquest of mountains: A contradiction." *Mountain* 14: 28–29.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1970c. "Language of creative research and language of science: A contrast." In *Linguaggi nella società e nella tecnica. Convegno promosso dalla Ing. C. Olivetti & C., S.p.a. per il centenario della nascita di Camillo Olivetti*. Milano: Edizioni di Comunita.
- 1970d. "A plea for pluralism in philosophy and physics (and discussions)." In *Physics, Logic, and History: Based on the First International Colloquium Held at the University of Denver, May 16–20, 1966*, edited by Wolfgang Yourgrau and Allen D. Breck. Denver: Plenum Press, pp. 129–46. (in SWAN IX)
- 1970e. "Rudolf Carnap." *Inquiry* 13: 337–38.
- 1971a. "Kierkegaard and the educational crisis." *Danish Yearbook of Philosophy* 8: 65–70.
- 1971b. "Letter to the king of Nepal." In *The Autobiography of a Shipping Man*, edited by Erling D. Naess (author). Oslo: Seatrade Publications, pp. 252–53. (in SWAN X)
- 1972a. "The Place of normative ethics within a biological framework." In *Biology, History, and Natural Philosophy*, edited by Allen D. Breck and Wolfgang Yourgrau. New York: Plenum, pp. 197–206.
- 1972b. *The Pluralist and Possibilist Aspect of the Scientific Enterprise*. Oslo: Universitetsforlaget. (SWAN IV)
- 1972c. "Pyrrhonism revisited." In *Contemporary Philosophy in Scandinavia*, edited by Raymond E. Olsen and Anthony M. Paul. Baltimore and London: Johns Hopkins University Press, pp. 393–403. (in SWAN VIII)
- 1973a. "Attitudes towards nature and interactions with nature (Three lectures given in Hong Kong)." Unpublished manuscript: 20 pages.
- 1973b. "Comments on 'Knowledge versus survival'." *Inquiry* 16: 415–16.
- 1973c. "The place of joy in a world of fact." *North American Review* (Summer): 53–57. (in SWAN X)
- 1973d. "Secondary qualities in the light of Sextus Empiricus' interpretation of Protagoras." Unpublished manuscript: 19 pages.
- 1973e. "The shallow and the deep, long-range ecology movement: A summary." *Inquiry* 16: 95–100. (in SWAN X)
- 1974a. "The ecopolitical frontier: A case study." *Intercollegiate Bulletin* 5: 18–26.
- 1974b. *Equivalent Terms and Notions in Spinoza's "Ethics"*. Oslo: Filosofisk Institutt, Universitet i Oslo.
- 1974c. *Gandhi and Group Conflict: An Exploration of Satyāgraha*. Oslo: Universitetsforlaget. (SWAN V)
- 1974d. "Is freedom consistent with Spinoza's determinism?" In *Spinoza on Knowing, Being, and Freedom: Proceedings of the Spinoza Symposium, Leusden, 1973*, edited by J. G. van der Bend. Assen: Van Gorcum, pp. 6–23. (in SWAN IX)

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1974e. "Martin Heidegger." In *Encyclopaedia Britannica*, 15th ed., pp. 738–41.
- 1975a. "The case against science." In *Science Between Culture and Counter-culture*, edited by C. I. Dessaur. Nijmegen, Netherlands: Dekker and Van de Vegt, pp. 25–48. (in SWAN IX)
- 1975b. *Freedom, Emotion and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics*. Oslo: Universitetsforlaget. (SWAN VI)
- 1975c. "Possibilism." Unpublished manuscript: 16 pages.
- 1975d. "Why not science for anarchists too? (A reply to Feyerabend)." *Inquiry* 18(2): 183–94. (in SWAN IX)
- 1977a. "Friendship, strength of emotion, and freedom." In *Spinoza Herdacht: 1677, 21 Februari 1977*. Amsterdam: Algemeen Nederlands Tijdschrift voor Wijsbegeerte, pp. 11–19.
- 1977b. "Husserl on the apodictic evidence of ideal laws." In *Readings on Edmund Husserl's Logical Investigations*, edited by J. N. Mohanty. Reprinted from *Theoria* 20 (1954): 53–63. The Hague: Martinus Nijhoff, pp. 67–75. (in SWAN VIII)
- 1977c. "The limited neutrality of typologies of systems: A reply to Gullvag." *Inquiry* 20: 67–72.
- 1977d. "Notes on the methodology of normative systems." *Methodology and Science* 10: 64–79. (in SWAN X)
- 1977e. "Spinoza and ecology." *Philosophia* 7(1): 45–54.
- 1977f. "Spinoza and ecology." In *Specuum Spinozanum, 1677–1977*, edited by S. Hesling. London: Routledge, pp. 418–25.
1978. "Through Spinoza to Mahāyāna Buddhism, or through Mahāyāna Buddhism to Spinoza?" In *Spinoza's Philosophy of Man: Proceedings of the Scandinavian Spinoza Symposium, 1977*, edited by J. Wetlesen. Oslo: Universitetsforlaget, pp. 136–58. (in SWAN IX)
- 1979a. "Modesty and the conquest of mountains." In *The Mountain Spirit*, edited by Michael C. Tobias and H. Drasdo. New York: Overlook Press, pp. 13–16. (in SWAN X)
- 1979b. "Self-realization in mixed communities of humans, bears, sheep, and wolves." *Inquiry* 22: 231–41. (in SWAN X)
- 1979c. "Towards a theory of wide cognitivism." In *Theory of Knowledge and Science Policy*, edited by W. Callebaut, M. De Mey, et al. Ghent: Communication and Cognition, pp. 111–18.
- 1980a. "Environmental ethics and Spinoza's *Ethics*: Comments on Genevieve Lloyd's article." *Inquiry* 23: 313–25.
- 1980b. *Filosofiens Historie I: Fra Oldtiden til Renessansen* (History of philosophy I). Oslo: Universitetsforlaget.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1980c. *Filosofiens Historie II: Fra Renessansen til vår Tid* (History of philosophy II). Oslo: Universitetsforlaget.
- 1980d. "Ideology and rationality" (revised and abbreviated version of 1978b). In *Ideology and Politics*, edited by Maurice Cranston and Peter Mair. Alphen aan den Rijn: Sijthoff, pp. 133–42. (in SWAN IX)
- 1980e. "Whole philosophies as data and as constructs." In *Social Science for What? Festschrift for Johan Galtung*, edited by H. H. Holm and E. Rudeng. Oslo: Oslo University Press, pp. 182–88.
- 1981a. "The empirical semantics of key terms, phrases and sentences." In *Philosophy and Grammar: Papers on the Occasion of the Quincentennial of Uppsala University*, edited by Stig Kanger and Sven Öhman. Dordrecht: D. Reidel, pp. 135–54. (in SWAN VIII)
- 1981b. "The primacy of the whole." In *Holism and Ecology*, edited by Arne Naess and Danilo Dolci. Tokyo: United Nations University (HSDRGPID-61/UNEP-326), pp. 1–10.
- 1981c. "Spinoza's finite God." *Revue Internationale de Philosophie* (135): 120–26. (in SWAN IX)
- 1982a. "An application of empirical argumentation analysis to Spinoza's 'Ethics.'" In *Argumentation: Approaches to Theory Formation*, edited by E. M. Barth and J. L. Martens. Amsterdam: John Benjamins, pp. 245–55. (in SWAN IX)
- 1982b. *Forward, Henryk Skolimowski, Ekofilosofi*. Stockholm: Akademilitteratur.
- 1982c. "A necessary component of logic: Empirical argumentation and analysis." In *Argumentation: Approaches to Theory Formation*, edited by E. M. Barth and J. L. Martens. Amsterdam: John Benjamins, pp. 9–22. (in SWAN VIII)
- 1982d. "Scepticism as the result of sufficiently deep and comprehensive inquiry: An answer to Nicholas Rescher." Unpublished manuscript: 12 pages.
- 1982e. "Simple in means, rich in ends: A conversation with Arne Naess." *Ten Directions* (Summer/Fall): 7–12.
- 1983a. "Einstein, Spinoza, and God." In *Old and New Questions in Physics, Cosmology, Philosophy, and Theoretical Biology: Essays in Honor of Wolfgang Yourgrau*, edited by A. van der Merwe. New York: Plenum Press, pp. 683–87. (in SWAN IX)
- 1983b. "How my philosophy seemed to develop." In *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Svilar. Bern: Peter Lang, pp. 209–26. (in SWAN IX)
- 1983c. "Spinoza and attitudes towards nature." In *Spinoza: His Thought and Work*. Jerusalem: Israel Academy of Sciences and Humanities, pp. 160–75. (in SWAN X)
- 1984a. "The arrogance of anti-humanism." *Ecophilosophy* 6 (May): 8–9. (in SWAN X)

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1984b. "Cultural anthropology: A new approach to the study of how to conceive of our own future (Fifteen lectures given in Vienna)." Unpublished manuscript.
- 1984c. "Deep ecology and lifestyle." In *The Paradox of Environmentalism: Symposium Proceedings in Downsview, Ontario*, edited by Neil Everndon. Downsview, Ontario: Faculty of Environmental Studies, York University, pp. 57–60. (in SWAN X)
- 1984d. "A defense of the deep ecology movement." *Environmental Ethics* 6: 265–70.
- 1984e. "The green utopia of 2084 (A paper presented at the University of Minnesota)." Unpublished manuscript: 9 pages.
- 1984f. "Identification as a source of deep ecological attitudes." In *Deep Ecology*, edited by Michael Tobias. San Marcos, CA: Avant Books, pp. 256–70.
- 1984g. "Intuition, intrinsic value and deep ecology: Arne Naess replies." *The Ecologist* 14 (5–6): 201–03.
- 1984h. "The politics of the deep ecology movement." Unpublished manuscript. (in SWAN X)
- 1984i. Review of *Warriors of the Rainbow: A Chronicle of the Greenpeace Movement*, by Robert Hunter. *Rigen Var Verden* (34): 10–15.
- 1984j. *A Sceptical Dialogue on Induction*. Assen, Netherlands: Van Gorcum.
- 1985a. "Ecosophy T." In *Deep Ecology: Living as if Nature Mattered*, edited by Bill Devall and George Sessions. Salt Lake City: Gibbs Smith, pp. 225–28.
- 1985b. "Gestalt thinking and Buddhism." Unpublished manuscript: 9 single-spaced pages. (in SWAN VIII)
- 1985c. "The world of concrete contents." *Inquiry* 28: 417–28. (in SWAN X)
- 1986a. "The connection of 'Self-realization!' with diversity, complexity, and symbiosis." Unpublished manuscript: 4 pages. (in SWAN X)
- 1986b. "Consequences of an absolute *no* to nuclear war." In *Nuclear Weapons and the Future of Humanity: The Fundamental Questions*, edited by Avner Cohen and Steven Lee. Totowa, NJ: Rowman and Allanheld, pp. 425–36. (in SWAN IX)
- 1986c. "Deep ecology in good conceptual health." *The Trumpeter: Journal of Ecosophy* 3(4): 18–22.
- 1986d. "The deep ecology movement: Some philosophical aspects." *Philosophical Inquiry* 8: 10–31. (in SWAN X)
- 1986e. "Intrinsic nature: Will the defenders of nature please rise?" In *Conservation Biology: The Science and Scarcity of Diversity*, edited by Michael E. Soulé. Sunderland, MA: Sinauer Associates, pp. 504–15.
- 1986f. "Limited definiteness of 'God' in Spinoza's system: Answer to Heine Siebrand." In *Neue Zeitschrift für Systematische Theologie und Religionsphilosophie*, edited by Oswald Bayer. Berlin: Walter de Gruyter, pp. 275–83.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1986g. "Self-realization: An ecological approach to being in the world." Keith Roby Memorial Lecture in Community Science, Murdoch University, Australia, March 12. (in SWAN X)
- 1987a. "Ecosophy, population, and free nature." Unpublished manuscript.
- 1987b. *Eksperternes Syn På Naturens Egenverdi* (Expert views on the intrinsic value of nature). Trondheim: Tapir Forlag. (in SWAN X)
- 1987c. "For its own sake." *The Trumpeter: Journal of Ecosophy* 4(2): 28–29.
- 1987d. "From ecology to ecosophy, from science to wisdom." Unpublished manuscript: 7 pages.
- 1987e. "Green society and deep ecology" (Schumacher Lecture). Unpublished manuscript: 14 pages.
- 1987f. "Notes on the politics of the deep ecology movement." In *Sustaining Gaia: Contributions to Another World View*, edited by Frank Fisher. Glen Waverly, Victoria, Australia: Aristoc Offset, pp. 178–98.
- 1987g. "Notes on the term 'anthropocentrism'." Unpublished manuscript.
- 1987h. "Population reduction: An ecosophical view." Unpublished manuscript: 8 pages. (in SWAN X)
- 1987i. "Scientific and technological biomedical progress as cultural concepts (Colloque de l'Académie Internationale de Philosophie des Sciences, organisé à Bruxelles, du 23 au 28 avril 1984)." In *La responsabilité éthique dans le développement biomedical*. Louvain-la-Neuve, France: CIACO, pp. 199–203.
- 1987j. "Self-realization: An ecological approach to being in the world." *The Trumpeter: Journal of Ecosophy* 4(3): 35–42. (in SWAN X)
- 1987k. "Solidarity, money, and the well-to-do." *Pan Ecology: An Irregular Journal of Nature and Human Nature* 1(3): 1–4.
- 1988a. "The basics of deep ecology." *Resurgence* (January/February): 4–7. (in SWAN X)
- 1988b. "Cultural diversity and the deep ecology movement." Unpublished manuscript: 10 pages. (in SWAN X)
- 1988c. "Deep ecology and ultimate premises." *The Ecologist* 18 (4/5): 128–31.
- 1988d. "The deep ecology movement." In *Problems of International Justice*, edited by S. Luper-Foy. Boulder, CO: Westview Press, pp. 144–48.
- 1988e. "Ecosophy, population, and free nature" (revision of 1987a). *The Trumpeter: Journal of Ecosophy* 5(3): 113–19.
- 1988f. "Environmental activism and Spinoza's *amor intellectualis dei*." Unpublished manuscript.
- 1988g. "Environmental ethics and international justice." *Ecospirit* 4(1).

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1988h. "A European looks at the North American branches of the deep ecology movement." *The Trumpeter: Journal of Ecosophy* 5(2): 75–76.
- 1988i. "Green politics, green parties, deep ecology. How related?" Unpublished manuscript.
- 1988j. "Norway—A developing country with good prospects." In *One Earth—One World*. Oslo: Ministry of Environment.
- 1988k. "Note concerning Murray Bookchin's article 'Social ecology versus deep ecology.'" Unpublished manuscript.
- 1988l. "On the structure and function of paradigms in science." In *Theories of Carcinogenesis*, edited by Olav Hilmar Iversen. Washington, D.C.: Hemisphere Publishing, pp. 1–9. (in SWAN IX)
- 1988m. "Self-realization: An ecological approach to being in the world" (excerpted from the Keith Roby Memorial Lecture, March 12, 1986, and from 1987j). In *Thinking Like a Mountain: Towards a Council of All Beings*, edited by John Seed, Joanna Macy, Pat Fleming, and Arne Naess. Philadelphia: New Society Publishers, pp. 19–30. (in SWAN X)
- 1988n. "Sustainable development and the deep long-range ecology movement." *The Trumpeter: Journal of Ecosophy* 5(4): 138–42.
- 1988o. "What is gestalt thinking? A note." Unpublished manuscript: 5 pages.
- 1989a. "Arne Naess gives his support to Edward Goldsmith's 'The Way.'" *The Ecologist* 19(5): 196–97.
- 1989b. "The basics of deep ecology." In *Actual English*. Kyoto: All English General Information Society. (in SWAN X)
- 1989c. "Deep ecology, wilderness, and the third world." Unpublished manuscript.
- 1989d. "The deepness of deep ecology." *Earth First!* (December): 32.
- 1989e. "*Docta ignorantia* and the application of general guidelines." Unpublished manuscript: 4 pages. (in SWAN X)
- 1989f. "Ecology and ethics (Goteborg paper, 28th September)." Unpublished manuscript.
- 1989g. *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and revised by David Rothenberg. Cambridge, UK: The University Press.
- 1989h. "Ecosophy and gestalt ontology." *The Trumpeter: Journal of Ecosophy* 6(4): 134–37.
- 1989i. "Ecosophy: Beyond East and West" (an interview with Richard Evanoff). *Kyoto Journal* (Summer): 40–44.
- 1989j. "Ecosophy, population, and sustainable development." Unpublished manuscript: 15 pages.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1989k. "The essence of the philosophy of Peter Wessel Zapffe." Unpublished manuscript.
- 1989l. "Finding common ground." *Green Synthesis* (March): 9–10.
- 1989m. "Gestalt ontology and gestalt thinking" (revised version of 1988o). Unpublished manuscript: 5 single-spaced pages. (in SWAN X)
- 1989n. "Metaphysics of the treeline." *Appalachia* (June 15): 56–59. Also in *Edge* 2(4): 25–26. (in SWAN X)
- 1989o. "A note on definition, criteria, and characterizations." Unpublished manuscript: 3 pages. (in SWAN X)
- 1989p. "A note on the function of the 'Eight Points' of deep ecology." Unpublished manuscript: 8 pages.
- 1989q. "Quality of life research." Unpublished manuscript.
- 1989r. "Integration of the 8 points of ecosophy T." Unpublished diagram. (in SWAN X)
- 1990a. "The basics of deep ecology" (summary of 1987 Schumacher Lecture; reprint of 1988a). In *The Green Fuse*, edited by John Button. London: Quartet Books, pp. 130–37. (in SWAN X)
- 1990b. "Deep ecology and conservation biology." *Earth First!* (March 20): 29. (in SWAN X)
- 1990c. "The deep ecology movement and ecologism." *Anarchy* (Summer): 33.
- 1990d. "Deepness of questions and the deep ecology movement." Unpublished manuscript. (in SWAN X)
- 1990e. "An intramural note on transpersonal ecosophy." Unpublished manuscript.
- 1990f. "Is freedom consistent with Spinoza's determinism?" (revision of 1974d). In *Spinoza*, edited by Martin Schewe and Achim Engstler. Frankfurt: Peter Lang, pp. 227–47. (in SWAN IX)
- 1990g. "Japan's second and last mistake." *Japan Environment Monitor* 3(2): 6–7.
- 1990h. "'Man apart' and deep ecology: A reply to Reed." *Environmental Ethics* 12 (Summer): 185–92.
- 1990i. "Peter Wessel Zapffe, obituary." *Aftenposten* (October 15).
- 1990j. "Pushing for a deep change" (interview). *English Journal* 4 (April).
- 1990k. "Spinoza and attitudes towards nature" (revised version of 1983c). Unpublished manuscript. (in SWAN X)
- 1990l. "Sustainable development and deep ecology." In *Ethics of Environment and Development: Global Challenge, International Response*, edited by R. J. Engel and J. G. Engel. Tucson: University of Arizona Press, pp. 87–96. (in SWAN X)

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1991a. "The connection of 'Self-realization!' with diversity, complexity and symbiosis." Unpublished manuscript: 7 pages. (in SWAN X)
- 1991b. "Freedom, self, and activeness according to Spinoza." Unpublished manuscript.
- 1991c. "An interview with Arne Naess." *New Renaissance* 2: 4–5.
- 1991d. "Is it a plus to have definite metaphysics in common? (Regarding Max Oelschlaeger's book, *The Idea of Wilderness*)." Unpublished manuscript: 2+ pages.
- 1991e. "A memorial tribute to Peter Wessel Zapffe." *Norwegian Literature* 1991.
- 1991f. "A note on the prehistory and history of the deep ecology movement." Unpublished manuscript: 4 pages. (in SWAN X)
- 1991g. "Paul Feyerabend—A Green hero?" In *Beyond Reason*, edited by Gonzalo Munévar. Dordrecht: Kluwer Academic, pp. 403–16. (in SWAN X)
- 1991h. "Politics and the ecological crisis: An introductory note." *ReVISION* 13(1): 142–46. (in SWAN X)
- 1991i. "Should we try to relieve cases of extreme suffering in nature?" *PanEcology* 6(1): 1–5. (in SWAN X)
- 1991j. "The Spectacular—enemy?" Unpublished manuscript.
- 1991k. "Spinoza and the deep ecology movement." Unpublished manuscript. (in SWAN X)
- 1992a. "Architecture and the deep ecology movement (Stockholm lecture)." Unpublished manuscript.
- 1992b. "Arguing under deep disagreement" (an abbreviated version of 1992i). In *Logic and Political Culture: Proceedings of the Colloquium "Logic and Politics," Amsterdam, 19–22 February 1990*, edited by E. M. Barth and E. C. W. Krabbe. Amsterdam: North-Holland, pp. 123–31.
- 1992c. "Ayer on metaphysics: A critical commentary by a kind of metaphysician." In *The Philosophy of A. J. Ayer*, edited by Lewis Edwin Hahn. La Salle, IL: Open Court, pp. 329–40.
- 1992d. "Deep ecology and potters in our planet." *The Studio Potter* 20: 38–39.
- 1992e. "Deep ecology for the twenty-second century." *The Trumpeter: Journal of Ecosophy* 9(2): 86–88. (in SWAN X)
- 1992f. "Ecology and ethics." In *Ecology and Ethics*, edited by A. Øfsti. Oslo: Norway Akademi for Kunst og Vitenskap.
- 1992g. "The encouraging richness and diversity of ultimate premises in environmental philosophy." *The Trumpeter: Journal of Ecosophy* 9(2): 53–60. (in SWAN X)

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1992h. "To grow up or to get to be more mature?" *The Trumpeter: Journal of Ecosophy* 9(2): 80–81.
- 1992i. "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap." In *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme. Gent, Belgium: Communication and Cognition, pp. 107–55. (The original German version, *Wie fördert man heute die empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap*, was written during 1937–39. It appeared in Oslo University's Filosofiske Problemer 19, 1956). (in SWAN VIII)
- 1992j. "Introductory biology and 'life appreciation' courses." *The Trumpeter: Journal of Ecosophy* 9(3): 126.
- 1992k. "Maturity, adulthood, boxing, and playfulness." Unpublished manuscript.
- 1992l. "Mountains (revised from original 1991 manuscript)." Unpublished manuscript: 6 double-spaced pages.
- 1992m. "The principle of intensity." Unpublished manuscript (article originally written in the 1940s): 4 pages. (in SWAN VIII)
- 1992n. "Radical thinking for desperate times." *The Independent* (January).
- 1992o. "Spinoza and the deep ecology movement" (Michigan lecture, revised from 1991k). Unpublished manuscript. (in SWAN X)
- 1992p. "Sustainability! The integral approach." In *Conservation of Biodiversity for Sustainable Development*, edited by O. T. Sandlund, K. Hindar, and A. H. D. Brown. Oslo: Scandinavian University Press, pp. 303–10. (in SWAN X)
- 1992q. "Third world, deep ecology, socialism, and Hitlerism: An open letter." *The Deep Ecologist* 43: 4–5.
- 1992r. "The three great movements." *The Trumpeter: Journal of Ecosophy* 9(2): 85–86. (in SWAN X)
- 1992s. "Tvergastein: An example of place." Unpublished manuscript: 18 pages. (in SWAN X)
- 1992t. "What about science in ecologically sustainable societies?" Unpublished manuscript.
- 1993a. "Beautiful action: Its function in the ecological crisis." *Environmental Values* 2(1): 67–71. (in SWAN X)
- 1993b. "The breadth and the limits of the deep ecology movement." *Wild Earth* 3: 74–75. (in SWAN X)
- 1993c. "Culture and environment." In *Culture and Environment: Interdisciplinary Approaches*, edited by Nina Witoszek and Elizabeth Gulbrandsen. Oslo: Centre for Development and the Environment, University of Oslo, pp. 201–09.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1993d. "The deep ecological movement: Some philosophical aspects." In *Environmental Ethics: Divergence and Convergence*, edited by Susan J. Armstrong and Richard G. Botzler. New York: McGraw-Hill, pp. 411–21. (in SWAN X)
- 1993e. *Deep Ecology and Politics* (a revision of three articles, "The three great movements," "Comments on the planned official Norwegian presentation in Rio, April 1992," and "Politics and the ecological crisis: An introductory note"). Centre for Development and the Environment, University of Oslo, working paper 1993.7. (in SWAN X)
- 1993f. "The deep ecology 'Eight Points' revisited." Unpublished manuscript: 9 pages. (in SWAN X)
- 1993g. "Everything really important is dangerous" (an interview with Arne Naess by David Rothenberg). In *Wisdom and the Open Air: The Norwegian Roots of Deep Ecology*, edited by Peter Reed and David Rothenberg. Minneapolis: University of Minnesota Press, pp. 99–111.
- 1993h. "Fundamentalism, Rawls, and the Eight Points of the deep ecology movement: A note." Unpublished manuscript: 3 pages.
- 1993i. "Gandhian nonviolent verbal communication: The necessity of training." Unpublished manuscript: 9 pages.
- 1993j. "How should supporters of the deep ecology movement behave in order to affect society and culture?" *The Trumpeter: Journal of Ecosophy* 10(3): 98–100.
- 1993k. "In praise of books of the big outside." *Wild Earth* 3: 88–89.
- 1993l. "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences." In *Scientific Philosophy*, edited by Friedrich Stadler. Dordrecht: Kluwer Academic, pp. 11–25. (in SWAN VIII)
- 1993m. "Migration and ecological unsustainability." Unpublished manuscript: 5 pages.
- 1993n. "Mountains and mythology." Unpublished manuscript: 2 pages.
- 1993o. "The politics of the deep ecology movement." In *Wisdom and the Open Air: The Norwegian Roots of Deep Ecology*, edited by Peter Reed and David Rothenberg. Minneapolis: University of Minnesota Press, pp. 82–99. (in SWAN X)
- 1993p. "Simple in means, rich in ends" (an interview with Arne Naess by Stephan Bodian). In *Environmental Philosophy: From Animal Rights to Radical Ecology*, edited by Michael E. Zimmerman, J. Baird Callicott, George Sessions, Karen J. Warren, and John Clark. Englewood Cliffs, NJ: Prentice-Hall, pp. 437 ff.
- 1993q. *Spinoza and the Deep Ecology Movement*. Delft: Eburon. (in SWAN X)
- 1993r. "Theory, practice, and its synthesis within a movement." Unpublished manuscript: 1 page.
- 1993s. "The tragedy of Norwegian whaling: A response to Norwegian environ-

COMPREHENSIVE NAESS BIBLIOGRAPHY

- ment group support for whaling." *North Sea Monitor* (December): 10–12. (in SWAN X)
- 1993t. "'You assert this?' An empirical study of weight-expressions." In *Empirical Logic and Public Debate: Essays in Honour of Else M. Barth*, edited by Erik C. W. Krabbe, René José Dalitz, and Pier A. Smit. Amsterdam and Atlanta, GA: Rudopi, pp. 121–32. (in SWAN VIII)
- 1994a. "Climbing and the deep ecology movement." Unpublished manuscript: 3 pages.
- 1994b. "Creativity and gestalt thinking." *The Structuralist* 33/34: 51–52. (in SWAN VIII)
- 1994c. "Culture and environment" (reprint of 1993c). *International Journal of Ecoforestry* 10(4): 158–161.
- 1994d. "From psychology to ontology (Ireland lecture)." Unpublished manuscript: 6 pages.
- 1994e. "A green history of the world (Lecture for Schumacher College, July)." Unpublished manuscript.
- 1994f. "The heart of the forest." *International Journal of Ecoforestry* 10: 40–41. (in SWAN X)
- 1994g. "How my philosophy seemed to have developed: 1983–1994." Unpublished manuscript: 7 pages. (in SWAN IX)
- 1994h. "The Norwegian roots of deep ecology." In *Nature: The True Home of Culture*, edited by Børge Dahle. Oslo: Norges Idrettshøgskole, pp. 15–18.
- 1994i. "Trust and confidence . . . An answer to Rescher's reappraisal of scepticism." Unpublished manuscript: 16 pages. (in SWAN VIII)
- 1994j. "What do we as supporters of the deep ecology movement stand for and believe in?" Unpublished manuscript: 9 double-spaced pages. (in SWAN X)
- 1995a. "The apron diagram." In *The Deep Ecology Movement: An Introductory Anthology*, edited by Alan Drengson and Yuichi Inoue. Berkeley, CA: North Atlantic Books, pp. 10–12. (in SWAN X)
- 1995b. "Deep ecology for the twenty-second century." In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions. Boston: Shambhala Publications, Inc., pp. 463–67. (in SWAN X)
- 1995c. "Deep ecology in the line of fire." *The Trumpeter: Journal of Ecosophy* 12(3): 146–49.
- 1995d. "Deepness of questions and the deep ecology movement." In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmental-*

COMPREHENSIVE NAESS BIBLIOGRAPHY

- ism*, edited by George Sessions. Boston: Shambhala Publications, Inc., pp. 204–12. (in SWAN X)
- 1995e. “The ‘Eight Points’ revisited.” In *Deep Ecology for the Twenty-first Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions. Boston and London: Shambhala, pp. 213–21. (in SWAN X)
- 1995f. Foreword to *The Interconnected Universe*, by Irvin Laszlo. Singapore: World Scientific, pp. v–vii.
- 1995g. “Industrial society, postmodernity, and ecological sustainability.” *Humboldt Journal of Social Relations* 21: 131–46. (in SWAN X)
- 1995h. “Mountains and mythology.” *The Trumpeter: Journal of Ecosophy* 12(4): 165.
- 1995i. “Notes on gestalt ontology.” Unpublished manuscript.
- 1995j. “Ranking, yes, but the inherent value is the same: An answer to William C. French.” Published in Witoszek 1999 (see references). (in SWAN X)
- 1995k. “Seven point ecology (Some attitudes and convictions held by supporters of the deep ecology movement).” *Resurgence* (January/February): 26–27.
- 1995l. “The Third World, wilderness, and deep ecology.” In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions. Boston: Shambhala Publications, Inc., pp. 397–407. (in SWAN X)
- 1995m. “Antifascist character of the eight points of the deep ecology movement.” Unpublished manuscript. (in SWAN X)
- 1995o. “Ecology, sameness & rights.” In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions. Boston and London: Shambhala Publications, Inc., pp. 222–24.
- 1996a. “The Arctic dimension outside and inside us.” In *Deep Ecology in the High Arctic: Proceedings of the 1994 International Ecophilosophical Symposium, Svalbard, Norway, 29th August–2nd September*, edited by Elisabeth Stoltz Larsen and Robin Buzza. Longyearbyen: Norwegian Polar Institute, pp. 13–16.
- 1996b. “Comments on Harold Glasser’s ‘Deep ecology approach’ (DEA).” In *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy*, edited by Nina Witoszek and Andrew Brennan. Oslo: Centre for Development and the Environment, pp. 399–401.
- 1996c. “Deep ecology in the line of fire.” In *Rethinking Deep Ecology: Proceedings from a Seminar at SUM, University of Oslo, 5 September 1995*, edited by Nina Witoszek. Oslo: Centre for Development and the Environment, University of Oslo, pp. 107–15.
- 1996d. “Does humanity have a cosmic role? Protecting and restoring the planet.” *Environment Network News* (May/June).

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1996e. "Ecosophy, community, and lifestyle." In *Humanism Toward the Third Millennium*, edited by Fons Elders. Amsterdam: VUB Press, pp. 83–93.
- 1996f. "Heidegger, postmodernism theory, and deep ecology." Unpublished manuscript: 4 pages.
- 1996g. "Living a life that reflects evolutionary insight." *Conservation Biology* 10: 1557–59.
- 1996h. "A response to Rowe's 'From shallow to deep ecological philosophy'." *The Trumpeter: Journal of Ecosophy* 13(1): 32.
- 1996i. "Vagueness and ambiguity." In *Philosophy of Language*, edited by A. P. Martinich. New York: Oxford University Press, pp. 407–17.
- 1997a. "Conquest of mountains." *Resurgence* (July/August): 24–25.
- 1997b. "'Free nature': An interview with Ian Angus." *Alternatives Journal* 23(3): 18–21.
- 1997c. "Heidegger, postmodern theory, and deep ecology." *The Trumpeter: Journal of Ecosophy* 14(4): 181–83.
- 1997d. "Insulin shock method and the economic crisis in Vienna in 1934." In *Some Notes on Madness*, edited by Tarja Heiskanen. Helsinki: Finnish Association for Mental Health, SMS Publishers.
- 1997e. "An outline of problems ahead" (talk given at Environmental Justice Conference, Melbourne, October 1997). Unpublished manuscript. (in SWAN X)
- 1998a. "All together now: A review of E. O. Wilson's *Consilience*." *New Scientist* (22 August): 42–43.
- 1998b. "Arne Naess speaks about ecophilosophy and solidarity." *Ragtime* 5: 16–17.
- 1998c. "Interview of Arne Naess by Casey Walker." *Wild Duck Review* 4(1): 18–20.
- 1998d. "The spirit of the Vienna Circle devoted to questions of *Lebens- und Weltauffassung*." In *Game Theory, Experience, Rationality*, edited by W. Leinfellner and E. Köhler. Dordrecht: Kluwer Academic, pp. 359–67. (in SWAN VIII)
- 1998e. "The term 'development' today." *Development Today* 8(1): 10–11.
- 1999a. "Articulation of normative interrelation: An information theoretical approach." Unpublished manuscript.
- 1999b. "Ecoforestry and the deep ecology movement." In *Proceedings of the Fourth Biannual Conference of the Taiga Rescue Network, October 5–10*, edited by Rein Ahas, Taime Puura, Anne Janssen, and Elisa Peters, pp. 72–73. Tartu, Estonia: Estonian Green Movement.
- 1999c. "An outline of the problems ahead." In *Global Ethics and the Environment*, edited by Nicholas Low. London and New York: Routledge. (in SWAN X)

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1999d. "The principle of intensity." *Journal of Value Inquiry* 33: 5–9. (in SWAN VIII)
2000. "Avalanches as social constructions." *Environmental Ethics* 22 (Fall): 335–36. (in SWAN X)

By Arne Naess and Coauthors

1951. Naess, Arne, and Stein Rokkan. "Analytical survey of agreements and disagreements." In *Democracy in a World of Tensions*, edited by Richard McKeon with the assistance of Stein Rokkan. Chicago: University of Chicago Press, pp. 447–512. (in SWAN IX)
1955. Galtung, Johan, and Arne Naess. *Gandhis Politiske Etikk* (Gandhi's political ethics). 2d ed. 1968. Oslo: Johan Grundt Tanum.
1956. Naess, Arne, Jens Christophersen, and Kjell Kvalø. *Democracy, Ideology, and Objectivity: Studies in the Semantics and Cognitive Analysis of Ideological Controversy*. Oslo: Universitetsforlaget.
1960. Naess, Siri, and Arne Naess. "Psychological research and human problems." *Philosophy of Science* 27: 134–46.
1964. Austin, John L., and Arne Naess. "On Herman Tønnessen's 'What should we say'." In *Eighteen Papers on Language Analysis and Empirical Semantics*, edited by Herman Tønnessen. Edmonton, Alberta: University of Alberta, pp. 143–49.
1967. Naess, Arne, and Jon Wetlesen. *Conation and Cognition in Spinoza's Theory of Affects: A Reconstruction*. Oslo: University of Oslo.
1969. Naess, Arne, and Sigmund Kvaløy (translator). "Some ethical considerations with a view to mountaineering in Norway." *American Alpine Journal* (London: *The Alpine Club*): 230–33. (in SWAN X)
- 1972a. Naess, Arne, and Alastair Hannay. "An appeal to the cramped scholar by way of a foreword." In *An Invitation to Chinese Philosophy: Eight Studies*, edited by Arne Naess and Alastair Hannay. Oslo: Universitetsforlaget, pp. vii–xv.
- 1972b. Naess, Arne, and Alastair Hannay, eds. *An Invitation to Chinese Philosophy: Eight Studies*. Oslo: Universitetsforlaget.
1974. Naess, Arne, and A. J. Ayer. "The glass is on the table: An empiricist versus a total view" (a debate between Ayer and Naess). In *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders. London: Souvenir Press, pp. 11–68. (in SWAN VIII)
1980. Naess, Arne, and Jon Hellesnes. "Norway." In *Handbook of World Philosophy Since 1945*, edited by John Burr. Westport, CT: Greenwood Press, pp. 159–71.
1984. Naess, Arne, and George Sessions. "Basic principles of deep ecology." *Eco-philosophy* 6 (May): 3–7.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1987a. Naess, Arne, and Ivar Mysterud. "Philosophy of wolf policies I: General principles and preliminary exploration of selected norms." *Conservation Biology* 1: 22–34. (in SWAN X)
- 1987b. Naess, Siri, Arne Naess, and Torbjørn Moum and Tom Sørensen with the cooperation of Arne Mastekaasa. *Quality of Life Research: Concepts, Methods, and Applications*. Oslo: Institute of Applied Social Research.
1988. Seed, John, Joanna Macy, Pat Fleming, and Arne Naess, eds. *Thinking Like a Mountain: Towards a Council of All Beings*. Philadelphia: New Society Publishers.
1989. Naess, Arne, Liu Shiao-Ru, and Nicholas Gould. "Deep ecology (A conversation on 'deep ecology' and Taiwan's environmental problems)." *Issues and Options* 1(44): 1–6.
1990. Mysterud, Ivar, and Arne Naess. "Philosophy of wolf policies II: Supernational strategy and emergency interim management." Unpublished manuscript: 14 pages.
1995. Naess, Arne, and Johan (Bilder) Brun. *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein). Oslo: N. W. Damm and Son.
1996. Gullvåg, Ingemund, and Arne Naess. "Vagueness and ambiguity." In *Philosophy of Language*, edited by Marcelo Dascal, Dietfried Gerhardus, Kuno Lorenz, and Georg Meggle. Berlin and New York: Walter de Gruyter, pp. 1407–17.
1997. Naess, Arne, and Helena Norberg-Hodge. "Self-realization and society." *Resurgence* (January).
- 1998a. Grøn, Øyvind, and Arne Naess. *Introduction to General Relativity and Its Mathematics*. Oslo: Høgskolen i Oslo.
- 1998b. Naess, Arne, and Per Ingvar Haukeland. *Livsfilosofi: et personlig bidrag om følelser og fornuft / Arne Naess med Per Ingvar Haukeland*. Oslo: Universitetsforlaget.
2000. Naess, Arne. "Deep ecology and education: A conversation with Bob Jickling." *Canadian Journal of Environmental Education* 5: 48–62. (in SWAN IX)
2002. Naess, Arne, with Per Ingvar Haukeland. *Life's Philosophy: Reason and Feeling in a Deeper World*. Translated by Roland Huntford. Foreword by Bill McKibben. Introduction by Harold Glasser. Athens and London: University of Georgia Press.

Index

- absolute and final principles, Aristotle's doctrine of, 478
- absolutist *ding-an-sich* conceptions, rejection of, 451–52
- abstract structures (of reality), 449, 453, 455–56, 458, 462, 465
- abundance, 595
- “acceptance of life,” 134
- acting, from inclination vs. from duty, 124
 - See also* duty
- action research, 496–97
- activeness, 112, 113, 408–09
- activism, 73, 87, 88, 408
 - fighting the dominance of something vs. trying to eliminate it, 615
 - See also* deep ecology movement supporters; movements
- activists, 98, 255, 596
- agricultural commodities and economics, 586
- AIDS, 164, 165
- “alternative (future)” movements, 64, 88
 - See also* movements
- altruism, 52, 53, 519
- Amnesty International, 223, 288
- amor intellectualis*, 417
- amor intellectualis Dei*, 400–401
- anarchism, 216, 506
- Andersnatten, 463–65
- animal rights, 214, 291, 292, 298–99, 329–30
 - compared with human rights, 416–17
 - declarations of, 568
 - Gandhi on, 243
 - moral capacity as necessary for rights, 299–300
 - obligations as requirement for rights, 62, 614
 - point 3 of Eight Points and, 62
 - right to self-expression, 390
 - See also* life, right to
- animal welfare and animal cruelty, Gandhi and, 524
- animals
 - classes, 293
 - condemned to death for “crimes” committed, 296–97
 - death, 131
 - dignity, 505
 - identification with, 143, 302, 518–19
 - intrinsic/inherent value, 95, 330
 - See also* value (inherent/intrinsic)
 - killing (*see* animal rights; whaling)
 - “mere,” 330
 - mixed communities with wolves, sheep, and sheep owners, 303–06
 - norms about fairness toward, 95–96
 - suffering, 131, 132
 - viewing humans as, 265
 - wild-animal “management,” 296–97
 - See also* under self-realization; *specific topics*
- anthropocentric arguments, 46
- anthropocentrism, 47, 72, 186, 244, 406
- anthropology, philosophical, 623n1
- anthropomorphism, 581–82
- anticlass posture, 8–9
- antihumanism, arrogance of, 185–87
- antinuclear campaign, 215–16
- appearance vs. reality, 458–60
- apron diagram, 75–81
- areté* (virtue), 267, 415
- arguing from first principles, role of, 491–97
- argumentation and debate, 16, 80, 281, 501, 597
 - See also* deep ecology, on the defensive; non-violence, Gandhian form of
- argumentation patterns, 192
- Aristotle, 146–47, 478
- Armstrong-Buck, Susan, 237–39

INDEX

- ātman*, 488, 524, 525, 531, 619n8
 attributes of extension and non-extension, 391
 Australia, 15
 authoritarian policies, 100
 See also Eight Points of deep ecology movement, antifascist character
 Auxter, Thomas, 294
 avalanches as social constructions, 559–60
 axioms, 399–400, 583
 Ayer, Alfred, 544
- Baastad, Kjell Friis, 371, 375
 Barents Sea, 196, 261, 331
 Barth, Fredrik, 269, 272
 bears, 295, 296–300
 beautiful action
 function in ecological crisis, 121–27
 See also under Kant; “moral acts”
 behaviorism, 392
 beliefs, level-1 through 4, 77–79
 Bennett, David, 457, 458
 Bentham, Jeremy, 30, 479
 Bergland, Trygve, 169
 Bhagavad Gita, 242–43, 415
 biocentric vs. ecocentric, 18
 biodiversity, 148, 193, 595
 See also diversity
 “biospheric,” 618n3
 body, 113
 Bookchin, Murray, 100
 Brundtland, Gro Harlem, 143
 Brundtland Report, 140, 143, 144
 Buddha (Siddhartha Gautama), 525
 Buddhism, 50, 116, 242, 245
 budgets, private vs. public, 280
 bureaucracy, 4
- Callicott, J. Baird, 59, 60, 242, 458
 Cameron, Mr., 4
 Canada, 15
 capitalism, 216, 587
 See also free market
 Capra, Fritjof, 59
 carbon dioxide production, 196
 Carson, Rachel, 27, 89, 191–92, 405, 491
 caste system, 534
causa, 239–40
 centers of development, 521
 centralization of power, 588
 See also decentralization; globalization
 chain, 617n2
- change, deepness of, 30
 characterizations, 539–40
 chemistry, teaching, 583–84
 children, teaching
 about environment, 125–26
 See also education; schools
 Christianity, 50
 civil disobedience campaigns, 433–36
 See also Gandhian ethics of conflict resolution
 Clark, Stephen R. L., 297
 class differences, elimination of, 210
 class suppression, 210–11
 cognitive self-determination, 508
 collectives, 94, 112
 commiseration, 117
 Commoner, Barry, 388
 communication
 between conflicting groups, 597
 nonviolent, 597
 communism, 109, 216
 communities
 mixed, 304, 516
 vs. societies, 253, 303, 507
 web of, and its administration, 507–09
 “compassion priority norm,” 132–33
 complexity, 9–10, 37–39, 293, 295, 534
 vs. complication, 533
 conflict resolution
 research suggestions in area of, 440–43
 See also Gandhian ethics of conflict resolution
 conformity, cultural, 235–36
 consciousness, 105, 460
 conservation, defined, 565
 conservation biology, deep ecology and, 325–28
 conservation efforts, 276
 See also wolf policies; *specific topics*
 conservation strategy, 36
 conservatism, 22
conserve, 632n7
 “Constructive Programme, The,” 433–34
 consumerism, 585
 consumption, 578–79
 of natural resources, 167, 217
 criteria/criterion, 537–40
 history of the term, 537
 types of, 537–38
 critical philosophy, 121
 crowding, 8, 608
 See also overpopulation and overcrowding; population
 “cult of life,” 134

INDEX

- “cult of nature,” 134
- cultural anthropology, 91, 623–24nn1–2
 - the new, 263–65
- cultural differences, deepness of, 265–69
- cultural diversity, 238, 272, 502
 - deep ecology platform and, 269–73
 - deep vs. shallow ecological approach to, 44
 - social justice, sustainable development, and, 572–75
- cultural evolution, 265
- cultural systems and suffering, 135
- cultures
 - development from premodern or postmodern, 578
 - disrespect in the West of nonindustrial, 579–81
 - extinction, 270–71
 - peaceful coexistence of different, 233
 - richness (*see* cultural diversity)
- Darwin, Charles, 136
- Davidson, Donald, 244, 245, 247, 623n5
- de principiis non est disputandum*, 495
- death and dying, 131
- debate. *See* argumentation and debate; mediators
- decentralization, 10–11, 197, 258, 317, 541–42
 - See also* centralization of power
- decision making, 10–11, 501
 - See also* argumentation and debate
- deconstruction, 559
- deep ecological questioning. *See* questioning
- deep ecologists, 90, 618n3
 - what they have in common, 18–20, 57
 - See also* Eight Points of deep ecology movement
- deep ecology, 90
 - a call to speak out, 35–37
 - on the defensive, 33–35
 - definitions and meanings, 538–39, 622n1
 - goals, 14
 - illustrated as a derivational system, 48–49
 - for the 22nd century, 611–16
 - possible scenarios, 613
 - principles, 13–20, 48
 - multiple roots of, 49–50
 - See also* Eight Points of deep ecology movement
 - reasons for a, 46–47
 - terminology, 64, 187
 - See also specific topics*
- deep ecology approach, aspects of, 14–15
- deep ecology movement, 14
 - alternate names for, 41
 - attitudes and tendencies characteristic of, 105–07
 - authors who have contributed to, 617–18n2
 - breadth and limits, 71–74
 - defining, 37, 58, 220, 230
 - fascist tendencies, 100
 - See also* Eight Points of deep ecology movement, antifascist character
 - four-level conception of (*see* apron diagram)
 - historical perspective, 21–22
 - history and prehistory/forerunners of, 89–92
 - key slogans, 201–03
 - persistent “whys” and “hows,” 23–31
 - plurality and unity, 77
 - politics, 194
 - role in political life, 200
 - supporters, 72
 - terminology, 618n3
 - vision of reality, 16
 - See also specific topics*
- deep ecology movement supporters
 - what they stand for and believe in, 83–88
- deep ecology platform, 275
 - apron diagram, 75–81
 - See also* Eight Points of deep ecology movement
- deepness, 21–22, 26, 42, 79
 - See also* shallow ecology movement
- “deepness and broadness of attitude” approach, 21–22
- definition, 538–40
- deforestation. *See* forest(s), depletion of
- Dæhlin, Knut, 161
- demand, 140, 141
- democracy, 99–100
- depreciation, 580
- Descartes, René, 475–77
- “determined in its essence,” 622n3
- determinism and determination, 240
- deva* (god), 267
- Devall, Bill, 230
- developed and undeveloped countries, 141–42, 266, 270, 594–96, 600
 - See also* low material standard, countries with; poor countries; rich industrial countries
- developers and conservers, confrontations between, 456–57
- developing countries, 141, 508, 564
- development, 266
 - centers of, 521

INDEX

- development (*continued*)
 - defined, 565, 566
 - ecologically unsustainable, 141–42, 563–64, 595
 - See also* sustainability
 - environment and, 599, 603, 606
 - conflicts between, 594
 - terminological and conceptual recommendations regarding, 593–98
- Diderot, Denis, 465
- dignity, 505
- Diogenes of Sinope (Diogenes in the Barrel), 139, 140
- diversity, 8–9, 270
 - of life forms, 18, 37–39, 99, 153, 154
 - maximum, 502–03, 533, 534
 - vs. plurality, 532, 533
 - and realization of potentials, 292–93
 - vital needs and right to reduce, 568
 - See also* biodiversity; cultural diversity
- “diversity norm,” 61–62
- Diwakar, Ranganath R., 434
- docta ignorantia* (conscious ignorance), 17, 503, 542, 543
- doomsday prophets. *See* ecological doomsday prophets; pessimism
- Douglas, William O., 390
- dread, 111
- Drengson, Alan, 328
- duplication, theory of, 454–55, 460
- duty, 122–23, 125
 - acting from inclination vs. from, 124, 127
 - as relational, 125
 - See also* obligations
- “Earth First!,” 201
- ecocentrism, 406–07
- ecofeminism, 80, 222
- ecological consciousness, 86, 105
- ecological crisis, 98, 398–400, 411, 612, 615
 - positive function, 92
 - See also under* beautiful action; politics
- ecological doomsday prophets, 207, 603–04, 612
 - See also* pessimism
- ecological egalitarianism. *See* egalitarianism
- ecological questioning. *See* questioning
- ecological self, 516, 517, 520, 522, 523
- ecologism, 12
- ecologists, 9, 207
- ecology, science of, 95
- economic globalization, 585
 - See also* globalization
- economic growth, 171
 - if-statements and exponential growth, 207–08
 - sustainable, 40, 65, 141, 563–64
- economy, mixed, 587
- ecophilosophical aspect of deep ecology movement, 89–90
- ecophilosophy, 41, 203
 - See also* ecosophy
- ecopolitical issues, checklist of, 208–12
- ecopolitics, 203
- ecosophers, 518, 557–58
- ecosophical development, 563
- Ecosophy T, 51–54, 59, 320, 636–37n2
 - codification of, 534
 - diagrams of, 53, 484–85
 - diversity, complexity, and, 533
 - fundamental norm, 52
 - hypothetical assumptions of, 134
 - integration of Eight Points into, 535
 - motivations for developing, 134
 - norms in, 310
 - See also under* Self-realization
 - population issues and, 275
 - relieving suffering and, 135
 - self-realization and, 488, 489
 - See also* self-realization
 - See also under* Feyerabend
- ecosophy(ies), 11–12, 17, 59, 96–99, 232, 601
 - See also* total view(s)
- ecosystemic knowledge, 96
- ecosystemic rights, 214
 - See also* rights
- ecosystems, 222
 - mature, 387
 - respect for, 96
 - noninterference with, 38–40
 - preserving, 129–30
 - theory of, 9–10
- education, 210
 - deep vs. shallow ecological approach to, 45–46
- education campaigns, environmental, 36–37
 - See also* schools
- egalitarianism (biospherical), 296
 - “Against biospherical egalitarianism” (French), 547
 - applications of the term, 187
 - biospherical egalitarianism in principle, 68
 - deep ecology movement and, 7–9

INDEX

- equal rights (in principle) and, 292
- Gandhi and, 524
- "human lot" and, 186
- shallow-deep ecology spectrum and, 47
- species egalitarianism in principle, 300
- Spinoza and, 407
- two-factor, 295
- ego, 526
- ego-realization, 488
- ego trips, 525, 526
- egocentrism. *See* frames of reference
- Eight Points of deep ecology movement, 37–42, 220, 270, 564–65, 621n1
 - antifascist character, 93–101
 - elaboration and examples, 77–78
 - integration into Ecosophy T, 535
 - revisited, 57–66
 - World Conservation Strategy and, 565–67
- Einstein, Albert, 356
- elections, 206
- elitism, 327–28
- empathy, 517–18
 - See also* identification
- empowerment, 73
- Encyclopedia of Unified Science* (Neurath et al.), 479
- energy consumption, 217
- energy resources, 196–97, 599–600
- environment, 202
 - economics, measurement, and, 4
 - problems of protecting, 3–5
 - relationship with, 14–15
 - See also specific topics*
- environmental, peace, and social (justice) movements, 72–73, 88, 193–94, 219–24, 236, 613–14
 - See also* peace movement
- environmental decisions, philosophical position
 - of persons who influence, 149–51
- "environmental fascism," 94, 100
- environmental ontology vs. environmental ethics, 527
- environmental philosophy
 - main problem of, 237–38
 - richness and diversity of ultimate premises in, 229–49
- environmentalism, 240
 - philosophical premises, 118–19
 - problems with the word, 614
 - radical, 253, 614
- environmentalists, 3–4, 450
 - who predicted environmental catastrophes (*see* ecological doomsday prophets)
 - See also* experts
- Enzenberger, Hans Magnus, 542–43
- epistemology, 464
 - See also* ignorance; scepticism
- epoché*, 473
- equal right to live and blossom, 494–95
- equal rights, 506
- equality, sameness, and rights, 67–70
 - See also* egalitarianism
- equity, 97
- essence, 630n7
- ethical obligations, 97, 98
- ethical rules and ethical views, 311–12
- ethics, 234, 241, 242
 - ecosystems and, 129–30, 389–90
 - ontology and, 456–58
 - See also* Gandhian ethics of conflict resolution; justice; "moral acts"; *specific topics*
- Ethics* (Spinoza). *See under* Spinoza
- ethnography, 623n1
- ethnology, 623n1
- ethology, 392
- Euclid, 399
- European Common Market (EEC), 210
- European philosophy and religion, 90–91
- European Union (EU), 585–88, 602–03
- evil, 112, 388, 459, 581
- evolution, 136
- exclusivity, relations of, 292
- existentialist thinking, 463
- experience, 459, 471
- experts
 - attitudes of, 151
 - role of, 178–80
 - See also* environmentalists
- exploitation, 487
- external relation, 522
- extinction, 270–71, 305–06, 330
- facts, 18
- farms, family
 - in Norway, 586
- fascism, 93–95, 100
 - See also* Eight Points of deep ecology movement, antifascist character; Mussolini; Nazi Germany
- fascist ideas, popularity of, 24

INDEX

- feminism. *See* ecofeminism
- Feyerabend, Paul, 511
- fundamental philosophies, Ecosophy T, and, 505–07
- on Lakatos, 636n2
- as mild and green, 499–500
- principle of maximum diversity and, 503
- principle of minimum interference and, 503–05
- scientific worldviews and, 509–10
- traditions and rationality, 500–02
- and the web of communities and its admiration, 507–09
- first-order comments, 99
- fisheries, policies for, 126–27
- Foreman, Dave, 100
- forest(s)
- depletion of, 194, 255–56, 580
- heart of the, 551–53
- See also* treeline; trees
- Foundation for Deep Ecology, 603
- Fox, Warwick, 26, 60, 543
- frames of reference, 470
- explication of one as involving introduction of another, 473–77
- See also* total/fundamental frames; total view(s)
- France, 15
- Francis of Assisi, St., 382
- free market, 585–87
- “free nature,” 259–60
- free nature, darker side of, 131
- free society, 507
- freedom, 238, 296, 391, 409, 539, 633n8
- economic, 585–87
- See also* self-realization
- French, William C., 547, 550
- Freud, Sigmund, 118, 518
- Fromm, Erich, 518–20
- fundamental frames. *See* total/fundamental frames
- fundamentalists vs. realists, 16
- Future in Our Hands, The, 174, 177
- Gaia hypothesis, 403, 567
- Galtung, Johan, 73
- Gandhi, Mahatma, 60, 96, 111, 242–43
- on animal welfare, 243, 524
- biospherical egalitarianism and, 524
- metaphysics, 523–25
- Gandhi and Group Conflict* (Naess), 636n1
- Gandhian ethics of conflict resolution, 422
- systematization D of, 422–28
- application to efforts of peaceful international cooperation, 437–40
- exemplification and elaboration, 433–37
- norms and hypotheses, 428–33
- gas. *See* natural gas
- Gathering for the Creation, 168
- Gauri Shankar, 335–36
- Gautvik, Morten, 179
- genetic relations, defined, 75
- Germany, 15
- See also* Nazi Germany
- gestalt apperception, 461
- gestalt ontology
- deep ecology movement and, 460
- and gestalt thinking, 235, 386, 410, 455–63
- gestalt perception, 461
- gestalt principles, 9–10, 202
- gestalt thinking
- defined, 463
- See also* gestalt ontology
- gestalt(s)
- higher-order and subordinate, 556
- and the process of identification, 465–66
- global action, 40, 258–59
- global attitudes. *See* place-corrosive process
- global community, 198
- global ecology movement, 141
- “global” vs. “international,” 584
- globalization, 585, 602–03
- See also* centralization of power
- God, 382
- as finite vs. infinite, 404
- functions of, in Spinoza’s *Ethics*, 404
- See also* Spinoza, *Ethics*
- identified with Nature, 383–86, 388, 389, 402–04, 406, 629n3
- See also under* Spinoza, *Ethics*
- immanence, 383–87, 398, 401–06
- love of, 401, 405–06, 410
- power of, 389
- See also* *deus* (god)
- Goethe, Johann Wolfgang von, 235, 397, 411
- Goldsmith, Edward, 65
- goodness, 129–33, 388, 581–82
- Gran, Finn, 174–75
- Grand Canyon, 3–4
- grassroots activism, 613–14
- See also* activism
- Great Britain, 15
- See also* Gandhian ethics of conflict resolution

INDEX

- green communities, 407
- Green economics and political theory, 605–10
- green economies, 587
- Green movement, 64, 65
- Green party program, Norwegian, 198
 - basic tenets, 198
- green philosophy and politics, 41
- green political parties, fundamental vs. pragmatist positions in, 197
- green political party programs, 30
 - from day to day, 217–18
- Green political theory, 95
 - vs. green political theory, 100–101
- green politics, 197–200, 203–06
- green-red alliances, 211
- green society, 65, 83–85, 236, 256–57, 574, 616
 - goals and characteristics, 14–15, 193–94
 - “green utopias,” 256–57
- Green vs. green distinction, 100–101, 620n1
- Green vs. green economists, 605
- Greens. *See* Green party program, Norwegian
- gross domestic product (GDP), 590
- gross national product (GNP), 569
- group struggle, ethics of. *See* Gandhian ethics of conflict resolution
- Grue, Per Harald, 161, 165, 172
- Gueroult, M., 407
- Guha, Ramachandra, 254, 255, 261
- guided exchange, 501

- Hallen, Patsy, 525
- Hallingskarvet, 340–41
- happiness, 22, 277, 529, 530
 - See also* joy
- Hargrove, Eugene C., 241, 243
- healers, 504–05
- Hegel, Georg Wilhelm Friedrich, 235, 397, 398
- Heidegger, Martin, 26, 235, 240, 244–46, 463
- historical research, methodology of, 395
- history
 - philosophy of, 395–96
 - teaching, 584
- Hitler, Adolf, 135, 609
- Höibakk, Ralph, 370–72, 375, 376
- holistic medicine, 504–05
- holistic thinking, 461
 - See also* wholism
- “home,” and global place-corrosive process, 339–40
- homocentrism, 47, 186
- homocentrists, 557

- human beings, intrinsic value of. *See* value
- human chauvinism, 47
- human condition, 577–79
- human-in-environment concept, 7
- human rights, 96, 214, 223
- humankind, goals for, 277, 322
- humility, 116
- Huxley, Julian, 265
- Hveding, Vidkun, 171–72, 176
- hypocrisy. *See* “schizophrenia”
- hypotheses, 425

- “I,” 517
- idealist philosophers, 557
- identification, 417, 517, 524
 - with animals, 143, 302, 518–19
 - gestalts and the process of, 465–66
 - with others, 142–43, 302, 516
- ideology, 480–81
- ignorance
 - extending the area of one’s, 467–70
 - awareness of one’s, 468
 - See also* *docta ignorantia*
- immigration
 - ethical aspect, 284
 - See also* migration
- India, 260
 - See also* Gandhi
- inherent value/worth. *See* value
- Innerdalen, 5
- integration, 115
 - and maturity of philosophers, 111
 - of personality, 114
 - See also* wholism
- intensities vs. quantities, philosophical problem
 - of, 286–87, 313–15
- interference, 503–05
- internal relation, 522
- international conflict resolution. *See* Gandhian ethics of conflict resolution
- international trade, 588
- International Union for Conservation of Nature and Natural Resources (IUCN), 36, 39, 46
- internationalism, 584
- interpretability, multiple
 - use of vagueness and ambiguity to achieve, 486–87
- intrinsic value/worth. *See* value
- intuition(s), 68–70, 147, 311, 405, 449, 544
- intuitively based announcements, 147

INDEX

- isolation and elitism, 328
- Iverson, Olav Hilmar, 176
- James, William, 522–23
- Janzen, Daniel H., 145
- Johnson, Lawrence, 550
- joy, 110, 402, 528
 - according to “pessimistic” philosophers, 111–12
 - self-realization and, 293
 - Spinoza on, 112–18, 402
 - See also* happiness
- justice, 95
 - opinions about facts vs. opinions about, 609–10
- Kamal, Lieutenant-Sabir, 372
- Kant, Immanuel, 233–35, 245, 246, 397–98, 527
 - on beautiful acts/actions, 54, 61, 121–27, 516
 - critical philosophy of, 121
 - ethics, 248
- Kantian interpretation of Spinoza, 397–98
- karamayogi*, 425
- Karim, Abdul, 371–74, 378
- Karim, Safdul, 374, 378
- Kåsa, Erik, 169, 170, 173–74
- Kathmandu, Nepal, 581
- Katzner, Kenneth, 248–49, 268, 269
- Kiër, Johan, 357
- Kierkegaard, Søren, 105, 111, 145, 241, 472, 474, 507
- Knauth, Professor, 372
- knowing, 473
 - See also* ignorance
- knowledge, 16–17, 112, 471
 - See also* ignorance
- Koestler, Arthur, 480
- Kristiansen, Kåre, 167, 169, 171
- Kropotkin, Peter, 95, 552
- Kuhn, Thomas S., 229
- Kvaloy, Sigmund, 41
- L*-formulation, 129–30
- Lackner, Stephan, 133, 411–12
- Lakatos, Imre
 - as fellow anarchist, 636n2
- lamentation, 272
- land and sea ethics, deep vs. shallow ecological
 - approach to, 45
- language(s), 246–48, 268–69, 623n5
 - See also* translation
- Lapps, 507, 521
- Lebow, Victor, 578–79
- Leopold, Aldo, 129, 328, 457–58
- Leopold formula, 230, 231
- liberation. *See* freedom; self-realization
- life, 8, 133, 134, 214, 567
 - happy, 277
 - (intrinsic) value of (*see* value)
 - reverence for, 14, 37, 38, 133, 172
 - right to, 67, 214, 299, 416–17
 - See also* animal rights
- life community, 304
- life-forms, 94–95, 187, 320
 - interdependence and interference between, 292
- life quality. *See* quality of life
- life unfolding/life expansion, 489
- lifestyle
 - deep ecology and, 105–08
 - of environmentalists, 110
- linguistics, 248
 - See also* language(s)
- listening to opponent’s argument, 16
- Little Hans, 3
- “Live and let live,” 136, 185, 302–03, 329, 489, 505
- living beings, 309, 567
 - See also specific topics*
- Lloyd, Genevieve, 238
- local autonomy, 10–11
- logic, 18
- logical relations, defined, 75
- Longergan, Bernard J., 635n1
- love, 417
 - of oneself, 518
 - types of, 400–401, 405
- low material standard, countries with (Ls), 270, 597–98, 603
 - See also* developed and undeveloped countries; Third World
- Malinowski, Bronislaw, 247–48
- Malthus, Thomas Robert, 212–13
- Malthusianism, 212–13
- Mannheim, Karl, 481
- Marx, Karl, 109
- Masai, 260–61
- masculinity, power, and conquest, 278
- Masson-Oursel, Paul, 246
- mathematics, 583
- matter, 633–34n2
- maturity
 - comprehensive, 515–16
 - of the self, 516

INDEX

- “Maximum fulfillment of life potentials,” 505
- McCloskey, Henry John, 214, 299–300
- means and ends, 426
- mediators, need for, 609
- medicine, natural, 504–05
- Mediterranean, 15
- Meeker, Joseph, 41
- metaphysics, 320
- methodology
 - hard and soft, 483–84, 497
 - of historical research, 395
- mice, mountain, 345–46
- migration
 - and ecological unsustainability, 283–89
 - from poor to rich countries, how to reduce, 287–88
- Milbrath, Lester W., 150
- Miller, G. Tyler, 41, 51
- minimal interference, principle of, 503–05
- minorities, 272
- modern cultures, 578
- modesty, intellectual, 467–68
- monism, 239, 242
- “moral acts”
 - vs. “beautiful acts,” 61, 121–22, 527
 - moral law and, 526–27
- moral world order, 387
- Mount Saint Helens, 196
- mountaineering in Norway
 - ethical considerations with a view to, 361–64
 - See also* Tvergastein, climbing
- mountains, 335–36, 573
 - modesty and the conquest of, 365–68
- movements, 613–14
 - See also* “alternative (future)” movements; environmental, peace, and social (justice) movements
- Müller, Oluf C., 180
- Mussolini, Benito, 277–78
- mutual aid, 95
- Mysterud, Ivar, 130, 231, 548
- Naess, Arne Dekke Eide
 - lifestyle, 350–51
 - as optimist, 596, 611–12
 - psychological and social determiners of his philosophy, 350–51
 - writings
 - “Deepness of Questions,” 617n1
 - Gandhi and Group Conflict*, 636n1
 - “Self-realization,” 60
 - “Spinoza and Ecology,” 622n1, 631n10
 - “The deep ecology movement,” 22
- national identity, 210
- natural gas, 196–97, 599–600
- “natural greens,” 15
- natural law, 164, 387–88
- natural medicine, 504–05
- natural objects, projection of personal traits onto, 581–82
- natural resources. *See* energy resources; resources
- Natural Right, philosophy of, 390
- Nature, 134, 527–28
 - perfection of, 386–87, 411
 - See also under* God; Spinoza
- nature, 3, 155, 559–60
 - “cult of nature,” 134
 - getting people to see reality in relation to, 16
 - inherent value of, 134, 152–55, 244, 560
 - experts’ views on, 156–77
 - See also* value
 - man-nature relations, 90
 - philosophies of, in harmony with sane ecopolitical outlook, 381
 - principle of minimal interference with, 503–05
 - projection into, 557
 - respect for, 14, 37, 38, 134, 150
 - “romantic attitude” toward, 162–63
 - suffering and, 134–35
 - See also specific topics*
- Nature-as-creative, 402–03
- nature mysticism, 50, 59
- Nazi Germany, 223, 265, 609–10
- Nazi occupation of Norway, 288
- need(s), 140–41
 - vs. demand, 140, 141, 206
 - See also* vital needs
- neither-nor and the both-and answers, 449–50
- neocolonialism, 271
- Nepal
 - destruction of, 580–81
 - letter to king of, 335–36
- Nirvana, 116
- nobility, 123
- nominalism, 456
- nonviolence, 100, 421, 597
 - ethics of, 421, 437
 - research suggestions regarding application of, 440–43
 - writings on, 443

INDEX

- nonviolence (*continued*)
 - Gandhian form of, 16, 100
 - See also* Gandhian ethics of conflict resolution; *satyāgraha*
- Nonviolence in Peace and War* (Gandhi), 422
- normative systems, 490
 - preponderance of nonnormatives in, 492–93
 - role of social and political contexts, 490–91
- norms, 135, 232–33, 241, 271
 - in Ecosophy T, 310
 - “hypotheses” and, 484–90
 - internalization of, 125
 - lower (derived), 486
 - ultimate, 493–95
 - rational policies rest on, 310–13
 - values and, 181–82
 - See also* “compassion priority norm”
- North American Treaty Organization (NATO), 215
- Norton, Bryan G., 231
- Norum, Kaare R., 165
- Norway
 - consumption of natural resources, 167
 - Nazi occupation, 288
 - oil and gas resources, 599
 - wild-animal “management,” 296–97
 - See also specific topics*
- Norwegian policies, as hostile toward environment, 149
- Norwegian Society for the Conservation of Nature (NNV), 331–32
- Norwegians, 595
 - attitudes toward environment, 595
- nuclear power. *See* antinuclear campaign
- Nuyen, A. T., 244
- objectivity, 449
- obligations, 141
 - See also* duty
- oceanic feeling, 94
- Ødegaard, Hans Chr., 157–59, 180
- Oelschlaeger, Max, 230
- Oftedal, Per, 159, 164, 166, 168, 173, 178
- oil, 599–600
- Økland, Jan, 166
- oneness. *See* oceanic feeling; symbiosis
- ontology, 634n4
- Opdal, Anders, 370–72, 376
- open exchange, 501
- opinions, 493
 - See also* norms
- optimism, 27, 87, 609
- overpopulation and overcrowding, 214, 601, 607
 - See also* population
- Øye, Ivar, 173
- Paasche, Eystein, 162
- pain. *See* suffering
- parasitism, 130, 131, 533
- passivity, 112, 113, 409
- Passmore, John, 297, 457
- peace movement, 202
 - campaigns of deep ecology movement and, 214–16
 - See also* environmental, peace, and social (justice) movements; Gandhian ethics of conflict resolution; nonviolence
- peace organizations, 223
- peaceful communities, 416
- peaceful cooperation, social science contributions
 - to questions of, 443–45
- pecking-order law, 509
- perfection, 115, 277, 278, 402, 459, 630n8, 631n10
 - of God, 401–02
 - of Nature, 386–87, 411
 - See also* integration
- perseveration/*perseverare*, 412–14, 520, 632n7
 - See also* self-preservation
- Personal Place and Person-Place, 352
- personification of natural objects, 581–82
- perspectivism, 458–60
- pessimism, 27, 87, 612
- pesticides, 28
- philosophers, 146
 - idealist, 557
 - maturity and integration, 111
- philosophical approaches
 - deep ecologists with different, 18
 - points agreed upon by various, 18–20, 57
- philosophical relativism, 506
- philosophical schools, 121, 221
- philosophy
 - history of, 395–97, 408
 - vs. movement, 42
 - origin of the term, 306
- pity, 117
- place-corrosive process, global, 339–40
- Plato, 180, 472
- pleasure, 277, 529, 530
- pluralism, 242

INDEX

- plurality, 263, 531, 532
 - vs. diversity, 532, 533
- polarization of conflicting views, 609
- policies, ecological
 - universalizability, 30
 - See also* environmental decisions
- policy change, need for, 19, 38, 40
- political decisions, green relevance of all, 206
- political issues, deep ecology and big, 216–17
- political relativism, 506
- political triangle, poles of
 - and limitations of triangular analysis, 203–06
- political voluntarism, 217
- politics, 29
 - and the ecological crisis, 191–200
- pollution, 9, 17
 - deep vs. shallow ecological approach to, 42–43
 - politics of, 209, 210
 - See also* carbon dioxide production
- poor countries, 572, 594–96, 599
 - emigration from rich countries to, 283
 - See also* developed and undeveloped countries; low material standard, countries with (Ls)
- population, 201, 608–09
 - carrying capacity of Earth and, 569–70
 - deep vs. shallow ecological approach to, 43–44
 - flourishing of life and, 19, 270, 624n5
 - if-statements and exponential growth, 207–08
 - See also* Malthusianism; overpopulation
- population factor, 569–72
- population pressure, 600–601, 607–08
- population reduction, 62, 154–55, 201, 270
 - ecosophical view of, 275–79
 - period of transition in rich countries, 279–81
 - “productive” and “unproductive” people, economics, and, 280
- postindustrial societies, 588
- postmodern cultures, 578
- potentialities of realization, 292–93, 295, 505
 - See also* self-realization potentials
- potentials, 531
- poverty, 572, 607
 - See also* poor countries
- power, 115, 389, 412, 416
 - See also* perseverance/perseverare
- precizations, 99, 486–87
- premises
 - and conclusions, 399–400
 - deepness of, 21
- primary, secondary, and tertiary qualities, 452–54
- problematizing, 22, 28–29
- “profound,” 22
- projection, theory of, 452–53
- proof, 18
- proofs, teaching mathematical, 583
- property. *See* land and sea ethics
- Protagoras, 450, 633–34nn2
- psychoanalytic theory, 518
- public opinions, 493
 - See also* norms
- purna swaraj*, 435
- quality of life, 19–20, 38, 39, 41, 310
 - vs. self-realization, 137, 626–27n13
 - vs. standard of living, 153, 173–76, 179–80, 202
 - See also* value (inherent/intrinsic)
- quantities vs. intensities, philosophical problem of, 286–87, 313–15
- questioning, 22–26, 28–29
 - deep, 38, 49
- questionnaires, methodology of, 483
- questions, deep, 23–26, 29
- radicalism, 614
- ranking, 548
- rational grounding, 182
- rationalism, 117, 502
- rationality, 49, 391, 502
- Rawls, John, 95, 601
- realism, 91, 527
- reality. *See* abstract structures (of reality)
- reason, 406
- Reed, Peter, 177
- “reforestation” projects, 558, 591
- reform ecology movement. *See* shallow ecology movement
- reform vs. revolution, 216
- refugees, 284, 287–89
- Regan, Tom, 298–99
- relata, 451, 523
- relationalism, 506
- relativism, 506
- religions
 - of deep ecologists, 18, 50
 - points agreed upon by various, 18–20, 57
 - See also* apron diagram
- religious leaders and the environment, 29

INDEX

- research and researchers, 16–17
- resource depletion, 9
- resources
 - deep vs. shallow ecological approach to, 43
 - fair distribution and profit from nonrenewable, 597–605
- respect, 97
- responsibility, ethics of, 9
- rhetoric, 80
 - See also* argumentation and debate; deep ecology, on the defensive; nonviolence, Gandhian form of
- rich industrial countries (R's), 270, 597–99, 603
 - See also* developed and undeveloped countries
- "Rich life with simple means!", 406
- rich-to-poor emigration, 283, 288
- richness, 127, 153, 154, 196, 543, 568, 595
 - See also* cultural diversity
- rights, 62, 389–90
 - ecosystemic, 214
 - of living beings, 213
 - moral capacities and, 299–300
 - moral capacity as necessary for, 299–300
 - natural, 495
 - nature of, 329
 - "no right to," 62
 - obligations as requirement for, 62, 614
- Rodman, John, 41
- role models. *See* lifestyle, of environmentalists
- Romanticism, European, 90, 91
- Rothenberg, David, 26
- rules
 - fundamental, 311–12
 - types of, 311–12
- Sahlins, Marshall, 91–92, 264
- Sami language, 268
- Sami people, 259, 267
- Sarvam dharmaṃ niḥsvabbavam*, 451
- satyāgraha*, 423, 435–36, 438–40
- Scandinavia, 15
- scepticism, 473–74
 - higher-order, 470–73
- Schilling, Friedrich, 381
- Schilpp, P. A., 356
- "schizophrenia," 330–31, 602
- schools
 - green, 210
 - teaching about environment, 125–26
 - Western, and European unity, 583–88
- Schreiner, Per, 164, 170, 174, 181
- Schweitzer, Albert, 397
- science, 449
 - political function, 211
- scientific enterprise, deep vs. shallow ecological approach to, 45–46
- scientific influence, factors in ecopolitics operating against, 211–12
- scientific worldviews, absence of any, 509–10
- scientists, earth
 - why they avoid propagating their views, 327
- Self, 524, 531
 - See also* ātman
- self, 515
 - internal and external relations, 521–23
 - psychology of the, 521–23
 - See also* "I"
- self-acceptance and self-respect, lack of, 113–14, 116
- self-defense, 522
- self-destructiveness, convergence of three areas of, 219–20
- self-determination, 293–94, 508
- self-expression, 390, 489
- self-interest, 489, 519
- self-love, 518, 519
- self-preservation, 272, 389, 412–13, 489
 - See also* perseverance/perseverare
- Self-realization, 320, 488
 - diversity, complexity, symbiosis, and, 531–34
 - maximum, 52, 620n1
 - as norm of Ecosophy T, 52, 53, 137, 222, 231
 - as ultimate goal, 278
- self-realization, 135, 320
 - an ecological approach to being in the world, 516, 519–30
 - complete/maximum, 532, 533
 - concept of self and, 172, 320
 - exploitation, coercion, and, 8, 119
 - Gandhi on, 523–26
 - and identification with others, 52–53
 - interpretations of, 488–90
 - joy, suffering, and, 293
 - levels of, 222–23, 389
 - in self and others, 137
 - vs. life quality, 137, 626–27n13
 - in mixed communities of humans and animals, 291–300
 - pleasure, happiness, and, 528–30
 - rationality and, 391
 - right to, 119, 494

INDEX

- self-preservation and, 389
- self-realization potentials, 531–33, 620n1
 - See also* potentialities of realization
- self-subsistence, 622n1
- sentences
 - function of one-word sentences and other utterances, 487–88
 - understanding their meaning, 627n15
- Sessions, George, 230, 541
- Sextus Empiricus, 450, 537, 633–34nn2
- Shah, Wazir Ali, 371
- shallow ecologist, 618n3
- shallow ecology movement, 170
 - anthropocentrism/homocentrism, 186
 - vs. deep ecology movement, 7–11, 16, 17, 28–30, 89, 155, 192, 202–03, 620n1
 - See also* Green vs. green distinction; shallow vs. deep ecology
 - impact on governmental level, 220
 - main complaint against, 51
- shallow vs. deep ecology, 42–47
 - See also* shallow ecology movement, vs. deep ecology movement
- sheep, 295, 296–98, 301–02, 548–50
 - See also under* animals
- skepticism. *See* scepticism
- Smart, J. J. C., 452
- Smith, Mick, 560
- Smuts, General, 436
- snakes, 317–18
- Snyder, Gary, 230, 242, 245, 251–53
- social Darwinism, 295
- social ecology movement, 601
 - See also* ecosophy(ies)
- social economics, 160–61
- social epistemology, 464
- “social greens,” 15
- social injustice as violence, 73
- social justice, 193–94
 - sustainable development, cultural diversity, and, 572–75
- social (justice) movement(s). *See* environmental, peace, and social (justice) movements
- social justice organizations, 223
- social science action research, 496–97
- socialism, 216
- society
 - in dynamic ecological equilibrium, 381
 - “no way back” to old forms of, 588–91
- sociobiology, 265
- Socrates, 52, 470
- Somalis, 283–84
- sorrow. *See* commiseration
- Soulé, Michael, 224, 316–17, 325–27
- species, 95
 - ranking, 548
- species egalitarianism. *See* egalitarianism (biospherical)
- Spinoza, Benedict de, 76–77, 293, 476–78, 530, 629n3, 631n16
 - accounts of human nature, 295–96
 - on animal rights, 416
 - on animals, 631n15
 - antimoralist attitude, 415
 - and attitudes toward Nature, 381–94, 411
 - on *causa*, 239–40
 - and deep ecology movement, 239, 396–419, 622n1
- environmental ethics and, 239
- ethics, 300
 - Kant’s ethics and, 248
- Ethics*, 248, 392, 406, 416, 418, 629nn1–4, 631n11, 632nn17–2, 633n8
 - account of free human beings, 296
 - apparent inconsistencies in, 400
 - argumentation in, 419
 - conservare* and *perseverare*, 412, 413, 632n7
 - Ecosophy T and, 489
 - English translations of, 246
 - “God or Nature,” 137, 383, 385, 402–06
 - methodology, 478
 - nature and, 399
 - spiritual genesis of fifth part of, 400–403
 - as supreme synthesis, 478
 - terminology, 400–402, 414–15, 419
 - total view outlined in, 399
 - on God, 383–86, 400–402, 406
 - interpretations of, 235, 238–39
 - history of, 397–98
- Jewish faith, 403
 - on joy, 112–18, 402
- on lamentation and emotional epistemology, 272
- metaphysics, 238–39
- total view, 247, 399, 410–11
- Treatise on the Correction of the Understanding*, 478
- “Spinoza and Ecology” (Naess), 622n1, 631n10
- Spinozist, Kantian, Heideggerian, and Whiteheadian character (S-K-H-W) premises, 245, 246

INDEX

- Spinozistic social utopia, 633n8
 Spirit, 382
 spiritual world order, 382
 spontaneous experience, 461, 464–66
 forests and, 552, 553
 Sprigge, T. L. S., 300, 459–60
 Stammberger, Fritz, 373
 standard of living, 572
 vs. quality of life, 153, 173–76, 179–80, 202
 “statement,” 627n15
 stress, 123
 structural violence, 73
 subcultures, 272, 504
 See also communities
 subject-object cleavage, spontaneous experience
 without, 455–56
 subject-object distinction, 454–55
substantia (substance), 239–40, 246, 247
 suffering, 285, 287, 293, 626n11
 in nature, whether or not to relieve, 129–37
 norms about, 308–10, 313–14
 of other, identification with, 302–03
 quantity, quality, and experience of, 313–14
 Sundby, Per, 181–83
 superego, 352
 sustainability, ecological, 83, 84, 595–96, 612–14
 classes of unsustainability, 195–97
 goal of full, 578
 integral approach, 139–48
 meaning, 565–66
 “narrow” vs. “wide,” 65, 257–58
 as our “way back,” 588–91
 politics and, 193–95
 poverty and, 607
 promoting beautiful actions in the fight for,
 125–26
 soft technologies and, 85
 See also development, ecologically unsustainable
 sustainable development, 140, 141, 563–64
 See also under social justice
 sustainable economic growth and progress, 40,
 65, 141, 563–64
swaraj, 435
 Sweden, 288
 symbiosis, 8, 9, 52, 53, 389, 489, 533, 534
 See also oceanic feeling
 System, 474
 systems thinking, 12, 461
 See also ecosystems, theory of
 Taoism, 50
 Tasmanian devil, 303
 Taylor, Paul, 547
 teamwork, 495–96
 technocracies. *See* arguing from first principles
 technology(ies), 41, 83–86
 deep vs. shallow ecological approach to, 44
 soft, 85
 See also quality of life, vs. standard of living
 Tennyson, Alfred, 136
 “Think globally, act globally,” 259
 Third World, 98, 142, 145, 327, 603, 606
 migration problems, 286
 wilderness, deep ecology, and, 251–62
 See also low material standard, countries with;
 migration
 Third World communities, environmental
 concerns of, 260
 Thonstad, Tore, 625n4
 Thoreau, Henry David, 134
 Tirich Mir East, 369–72
 South Wall of, 369–78
 torture, 97
 total-field image, 7
 total/fundamental frames
 explication of, 470–73
 genesis of the belief in the possibility of,
 479–82
 paradoxes of, 477–79
 See also frames of reference
 total view(s), 17, 51, 59, 200, 231, 472
 ecosophies as, 97, 238
 inspired by ecological crisis, 411
 nature of, 399
 population issues and, 275, 279
 preconscious, 477–79
 of Spinoza, 247, 399, 410–11
 See also ecosophy(ies); wolf policies
 “totalitarian” disposition, 478
 totalitarianism. *See* Eight Points of deep ecology
 movement, antifascist character
 totus, 630n6
 trade, international, 588
 translation, 246–47, 267–68
 trash, disposal of, 352–53
 treeline, metaphysics of the, 555–58
 trees, relationship with, 14–15
 trust and mistrust, 430
 truth, 429
 Tveit, Jon, 160, 163, 173, 176–77, 179
 Tvergastein, 340
 amateur research at, 355–59

INDEX

- animals, 345–47
- climbing, 354–55
- flowers, 342–45
- genesis of a place-person, 347–48
- geography, 340–42
- human life at, 349–54
- ultimate norms, 310–13
- ultimate premises, 79
 - See also under* environmental philosophy
- ultimate source, 471
- understanding, 411, 631–32n16
- unemployment, 605
- United Nations, 599–600
- United States, northwestern, 15
- unity. *See* oceanic feeling; symbiosis
- universalizability, norm of, 195
- urban areas and nonurbanized personal places, 350
- urbanization, 254
- utilitarianism, 293, 567
- utopia(s)
 - green, 256–57
 - Spinozistic social, 633n8
- Vaihinger, Hans, 243
- Valhalla of the Vikings, 504
- value (inherent/intrinsic), 18, 37, 38, 95
 - of all human beings, 97, 99
 - of all living beings
 - Norwegians on, 330
 - as self-evident, 80
 - conservation efforts and, 276
 - gradations of, 97–98
 - identification and attribution of, 417
 - intolerance, discrimination, and, 99
 - intrinsic value vs. inherent value/worth, 61
 - justifiability of views on, 181–83
 - of natural world, 237
 - vs. nonliving entities as having value only as means, 4–5, 202
 - ranking and grading of, 549
 - See also* animals; quality of life
- value priorities, 114, 308
- VanDeVeer, Donald, 295
- views, 478
 - See also* frames of reference; total view(s)
- Vigerust, Per, 370–71
- violence
 - definitions and meanings of, 425–26
 - See also* nonviolence
 - effects of, 427
- virtue, 267, 410, 412, 415
- vital needs (and vital interests), 62, 67–68
 - vs. “needs,” 140–41, 154, 161–62, 319
 - rights and, 567–69
 - satisfying “wants” vs., 586
 - vagueness regarding the term, 39
- voting, 206
- Walsby, H., 480–81
- war. *See* peace movement
- Watt, James, 79–80
- whales, 595
- whaling, response to Norwegian environmental group’s support for, 331–34
- Whitehead, Alfred North, 237, 240, 245, 246, 453, 582
- wholism, 94
 - See also* integration
- Whorfian approach, 246
- wilderness areas, 109–10
- Wilson, E. O., 265
- Wingård, Bo, 163, 166–67, 173, 174, 177
- wisdom, 306, 563
- wolf policies, 301–02
 - norms, 310–13, 317–19
 - about suffering, 309–10, 313–14
 - protection of sheep against suffering, 313–15
 - protection of wolves as members of mixed communities, 315–21
 - reflect philosophies as total views, 306–08
 - respect for international agreements, 321–23
 - ultimate norms and, 310–13
- Wolff, Robert Paul, 476
- Wolfson, Harry Austryn, 400–401
- wolves, 548–50, 627n17, 628n25
 - danger of extinction, 305–06
 - dignity, 321
- world conservation strategy, 574
- World Conservation Strategy*, 36, 39, 46, 158, 216
- World Conservation Strategy (WCS)
 - deep ecology and, 564–68
- World Ecological Strategy*, 283
- world order
 - moral, 387
 - spiritual, 382
- Wyld, Henry Cecil Kennedy, 413
- Yellow Cheese (*Gulosten*), 223
- Zapffe, Peter Wessel, 133
- zoning and protection zones, 256

Arne Naess was born in Slemdal, Norway, in 1912. One of Norway's foremost philosophers, known especially for his innovative eco-philosophy, Naess began his work with peace studies, global justice, and human rights, and continued with environmental matters. The subjects of his scholarly work and interests include empirical semantics, logic and foundations of science, communication theory and practice, Spinoza, scepticism, gestalt ontology, and normative systems theory. Naess's contributions have been honored by many awards, including Norway's Peer Gynt Award, Denmark's Sonning Prize, the Nordic Council Award for Nature and Environment, the Uggla Prize for Humanistic Studies from Stockholm University, and the Mahatma Gandhi Prize for Non-violent Peace.

Naess graduated from the University of Oslo in 1933, studied in Paris and Vienna, and became the youngest person appointed to a full professorship of philosophy at the University of Oslo, where he worked from 1939 to 1969. Since 1970, he has continued his work as a philosopher, naturalist, and environmental activist. He has been involved with the University of Oslo's Center for Development and the Environment since 1991. The Arne Naess Chair in Global Justice and the Environment is being established at the university to encourage scholars to engage creatively with Naess's work and ideas, in particular to promote new insights into environmental issues and the challenges posed by globalization, and to develop ideas that will help to humanize the difficult and conflict-laden transition to sustainability. Naess holds honorary doctorates from Stockholm University and The Norwegian National University of Sports and Physical Education. He is also an honorary member of The Norwegian Alpine Club and The Norwegian Tourist Association.

In addition to writing countless articles and essays that have been translated into several languages and have appeared in anthologies and journals throughout the world, Naess is the author of numerous books, including *Life's Philosophy: Reason and Feeling in a Deeper World* and *Ecology, Community and Lifestyle*. He was founder and editor of the journal *Inquiry*, and has lectured in many countries. As a mountaineer, Naess was the first to climb Tirich Mir in Pakistan. In the 1930s, he built a hut on Hallingskarvet Mountain in Norway, where he spent much time reflecting upon and relating to the surroundings and native plants of his retreat. His respect and appreciation for diversity, wonderment, and our relationship to

the natural world has continued throughout his life and is reflected in the spirit of his work.

Naess currently lives in Oslo with his wife, Kit-Fai.

Harold Glasser, Ph.D. is Associate Professor of Environmental Studies at Western Michigan University in Kalamazoo, Michigan. He has been a visiting Senior Fulbright scholar at the Center for Development and Environment and Department of Philosophy, University of Oslo; a Resource Person for the United Nations University–Institute of Advanced Study; a visiting researcher at the International Institute for Applied Systems Analysis; and a lecturer at Schumacher College. He has written on environmental philosophy, policy, and planning, as well as green accounting, education for ecocultural sustainability, and campus sustainability assessment.

Alan R. Drengson, Ph.D. is Emeritus Professor of Philosophy at the University of Victoria, in Victoria BC Canada. He is a former Director of Environmental Studies and is currently an Adjunct Professor of Graduate Studies. He is the author of numerous articles, reviews, and books, as well as the editor of three anthologies and the founding editor of two journals, *The Trumpeter: Journal of Ecosophy* and *Ecoforestry*.

Bill Devall, Ph.D. is Emeritus Professor of Sociology at Humboldt State University, Arcata, California. He is the author of numerous books on deep ecology, including *Deep Ecology: Living as if Nature Mattered* and *Simple in Means, Rich in Ends: Practicing Deep Ecology*. He was also editor-in-chief of *Clearcut: The Tragedy of Industrial Forestry*. He has written numerous articles on the deep, long-range ecology movement and has been a conservation activist in many wilderness issues.

George Sessions is Emeritus Professor of Philosophy at Sierra College in Rocklin, California. He is co-author, with Bill Devall, of *Deep Ecology: Living as if Nature Mattered* and editor of *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*. He has been a lifelong mountain climber who began his research in the area of ecological philosophy in 1968.

Comprehensive Bibliography of Arne Naess's Works in English

This bibliography is based on information compiled by Harold Glasser and Kit-Fai Naess. It is a fairly complete record of Naess's works published in English, including some that were coauthored. For a more complete list of his work published and unpublished, see the website of the Center for Development and the Environment (SUM) associated with the University of Oslo.

By Arne Naess

1936. *Erkenntnis und Wissenschaftliches Verhalten* (Knowledge acquisition and science as behavior). Oslo: Norwegian Academy of Sciences, Inaugural Dissertation.
- 1938a. "Common sense and truth." *Theoria* 4: 39–58. (in SWAN VIII)
- 1938b. "Contribution to the discussions of the International Kongres für Einheit der Wissenschaft." *Erkenntnis* 7 (1937/38): 369–70 (D. C. Williams); 370 (J. H. Woodger); 371 (K. Grelling, P. Oppenheim); 382 (M. Kokoszynska); 384–86 (Walter Hollitscher).
- 1938c. *Truth as Conceived by Those Who Are Not Professional Philosophers*. Oslo: Norwegian Academy of Sciences and Jacob Dybwad.
- 1947a. "Abstracts of work by Georg Hygen, Ole Koppand, and Peter Wessel Zapffe." *Philosophic Abstracts* 7: 6–7.
- 1947b. "Citizenship as a subject!" *Universitas* (special issue) 2: 1–2.
- 1948a. *Notes on the Foundations of Psychology as a Science*, vol. 9, Stencil. Filosofiske Problemer, edited by Arne Naess. Oslo: Oslo University.
- 1948b. *Objectivity of Norms: Two Directions of Precization*, vol. 9, Stencil. Filosofiske Problemer, edited by Arne Naess. Oslo: Oslo University.
1949. "Towards a theory of interpretation and preciseness." *Theoria* 15: 220–41.
- 1950a. "The function of ideological convictions." In *Tensions That Cause Wars* (*Common statement and individual papers by a group of social scientists brought to-*

COMPREHENSIVE NAESS BIBLIOGRAPHY

- gether by UNESCO*), edited by H. Cantril. Urbana: University of Illinois Press, pp. 257–98. (in SWAN IX)
- 1950b. “Norwegian mountaineers in Chitral.” *Pakistan Horizon* 3: 3,5.
- 1951a. “Appendix I: The UNESCO questionnaire on ideological conflicts concerning democracy.” In *Democracy in a World of Tensions*, edited by Richard McKeon with the assistance of Stein Rokkan. Chicago: University of Chicago Press, pp. 513–21.
- 1951b. “The Norwegian expedition to Tirich Mir, 1950.” *Alpine Journal* (London) 58 (May): 6–15.
1952. “Towards a theory of interpretation and preciseness.” In *Semantics and the Philosophy of Language*, edited by Leonard Linsky. Urbana: University of Illinois Press, pp. 248–69.
- 1953a. *An Empirical Study of the Expressions ‘True,’ ‘Perfectly Certain,’ and ‘Extremely Probable.’* Oslo: Jacob Dybwad.
- 1953b. *Interpretation and Preciseness: A Contribution to the Theory of Communication.* Oslo: Jacob Dybwad. (SWAN I)
- 1953c. “Philosophers and research in the soft sciences.” In *Proceedings of the XIth International Congress of Philosophy, Volume VI: Philosophy and Methodology of the Sciences of Nature, Brussels, 20–26 August, 1953*. Amsterdam: North-Holland, pp. 255–59.
1954. “Husserl on the apodictic evidence of ideal laws.” *Theoria* 20: 53–63. (in SWAN VIII)
1956. “Synonymity and empirical research.” *Methodos* 8: 3–22.
- 1957a. “Synonymity as revealed by intuition (Discussion of B. Mates’s *Synonymity*).” *Philosophical Review* 66: 87–93.
- 1957b. “What does ‘testability’ mean? An account of a procedure developed by Ludvig Løvestad.” *Methodos* 9: 229–37.
- 1958a. “Editorial Statement.” *Inquiry* 1: 1–6.
- 1958b. “Logical equivalence, intentional isomorphism and synonymity as studied by questionnaires, sacred to the memory of Gerrit Mannoury.” *Synthese* 10a (1956–58): 471–79. (in SWAN VIII)
- 1958c. “Systematization of Gandhian ethics of conflict resolution.” *Journal of Conflict Resolution* 2: 140–55. (in SWAN X)
- 1959a. “Do we know that basic norms cannot be true or false?” *Theoria* 25: 31–55. (in SWAN VIII)
- 1959b. *Philosophy Within a World University* (a memorandum drawn up for the Conference at Brissago, Switzerland, September 1959). Stuttgart: International Society for the Establishment of a World University.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1960a. "Empiricism and freedom in theorizing (Notes on P. K. Feyerabend's mimeographed manuscripts *How to Be a Good Empiricist* and *Explanation, Reduction, and Empiricism*)." Unpublished manuscript: 11 pages.
- 1960b. "Typology of questionnaires adapted to the study of expressions with closely related meanings." *Synthese* 12: 481–94. (in SWAN VIII)
- 1961a. "Can knowledge be reached? (Lecture delivered at Oxford University, October 1960)." *Inquiry* 4: 219–27. (in SWAN VIII)
- 1961b. "The inquiring mind. Notes on the relation between philosophy and science (prepared in close cooperation with Eivind Storheim)." *Inquiry* 4: 162–89.
- 1961c. "The inquiring mind. Notes on the relation between philosophy and science (prepared in close cooperation with Eivind Storheim)" (reprint of 1961b). *Philosophy Today* 5: 185–204.
- 1961d. "Metaempirical reflections." Unpublished manuscript.
- 1961e. "A study of 'or'." *Synthese* 13: 49–60. (in SWAN VIII)
- 1962a. *Equivalent Terms and Notions in Spinoza's "Ethics"*. Oslo: Filosofisk Institutt, Universitet i Oslo.
- 1962b. "Nonmilitary defense." In *Preventing World War III*, edited by Quincy Wright, William M. Evan, and Morton Deutsch. New York: Simon and Schuster, pp. 123–35. (in SWAN IX)
- 1962c. "Typology of questionnaires adopted for the study of expressions with closely related meanings" (reprint of 1960b). In *Logic and Language: Studies Dedicated to Rudolf Carnap on the Occasion of His Seventieth Birthday*, edited by Yehoshua Bar-Hillel et al. Dordrecht: Synthese Library, pp. 206–19. (in SWAN VIII)
- 1962d. "We still do not know that norms cannot be true or false: A reply to Dag Österburg." *Theoria* 28: 205–09. (in SWAN VIII)
1963. "Knowledge and definiteness of intention." Unpublished manuscript: 10 pages.
- 1964a. "Definition and hypothesis in Plato's 'Meno'." *Inquiry* 7: 231–34.
- 1964b. "Nonmilitary defense and foreign policy." In *Civilian Defense*, edited by Adam Roberts. London: Peace News Pamphlet, pp. 33–43.
- 1964c. "Pluralistic theorizing in physics and philosophy." *Danish Yearbook of Philosophy* 1: 101–11.
- 1964d. "Reflections about total views." *Philosophy and Phenomenological Research* 25: 16–29. (in SWAN X)
- 1964e. "Was it all worth while? Review of P. de Vomécourt: *Who Lived to See the Day: France in Arms, 1940–1945*." *Peace News* (March 6).

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1965a. *Gandhi and the Nuclear Age*, translated by Alastair Hannay. Totowa, NJ: Rowman.
- 1965b. "Nature ebbing out." Unpublished manuscript. (in SWAN X)
- 1965c. "Science as behavior: Prospects and limitations of a behavioral metascience." In *Scientific Psychology: Principles and Approaches*, edited by B. Wolman and E. Nagel. New York: Basic Books, pp. 50–67. (in SWAN IX)
- 1965d. "The south wall of Tirich Mir East." *Himalayan Journal* 26: 97–106. (in SWAN X)
- 1966a. *Communication and Argument: Elements of Applied Semantics*. Second printing 1981. Translated by Alastair Hannay. Oslo: Universitetsforlaget. (SWAN VII)
- 1966b. *Elements of Applied Semantics*, translated by Alastair Hannay. London: Allen and Unwin.
- 1966c. "Psychological and social aspects of Pyrrhonian scepticism." *Inquiry* 9: 301–21.
- 1967a. "Civilian defense and foreign policy." In *Civilian Defense: An Introduction*, edited by T. K. Mahadevan et al. New Delhi: Gandhi Peace Foundation, pp. 102–16.
- 1967b. "Notes on some similarities between Spinoza on the one hand and Kierkegaard, Heidegger, Sartre on the other." Unpublished manuscript.
- 1967c. "Physics and the variety of world pictures." In *Grundfragen der Wissenschaften, und ihre Wurzeln in der Metaphysik*, edited by P. Weingartner. Salzburg: Pustet, pp. 181–88.
- 1967d. *Sanskrit for Generalists* (Sanskrit for generalists). Institute for Philosophy, mimeograph.
- 1968a. *Four Modern Philosophers: Carnap, Wittgenstein, Heidegger, Sartre*, translated by Alastair Hannay. Chicago: University of Chicago Press.
- 1968b. "Kierkegaard and the values of education." *Journal of Value Inquiry* 12: 196–200. (in SWAN VIII)
- 1968c. *Scepticism*. London and New York: Humanities Press. (SWAN II)
- 1969a. "Freedom, emotion, and self-subsistence: The structure of a small, central part of Spinoza's *Ethics*." *Inquiry* 12: 66–104.
- 1969b. *Hvilken Verden er den Virkelige?* (Which world is the real one?), vol. 37. Filosofiske Problemer. Oslo: Universitetsforlaget. (SWAN III)
- 1970a. "Can violence lead to non-violence: Gandhi's point of view." In *Gandhi, India and the World: An International Symposium*, edited by Sibnarayan Ray. Philadelphia: Temple University Press, pp. 287–99. (in SWAN IX)
- 1970b. "The conquest of mountains: A contradiction." *Mountain* 14: 28–29.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1970c. "Language of creative research and language of science: A contrast." In *Linguaggi nella società e nella tecnica. Convegno promosso dalla Ing. C. Olivetti & C., S.p.a. per il centenario della nascita di Camillo Olivetti*. Milano: Edizioni di Comunita.
- 1970d. "A plea for pluralism in philosophy and physics (and discussions)." In *Physics, Logic, and History: Based on the First International Colloquium Held at the University of Denver, May 16–20, 1966*, edited by Wolfgang Yourgrau and Allen D. Breck. Denver: Plenum Press, pp. 129–46. (in SWAN IX)
- 1970e. "Rudolf Carnap." *Inquiry* 13: 337–38.
- 1971a. "Kierkegaard and the educational crisis." *Danish Yearbook of Philosophy* 8: 65–70.
- 1971b. "Letter to the king of Nepal." In *The Autobiography of a Shipping Man*, edited by Erling D. Naess (author). Oslo: Seatrade Publications, pp. 252–53. (in SWAN X)
- 1972a. "The Place of normative ethics within a biological framework." In *Biology, History, and Natural Philosophy*, edited by Allen D. Breck and Wolfgang Yourgrau. New York: Plenum, pp. 197–206.
- 1972b. *The Pluralist and Possibilist Aspect of the Scientific Enterprise*. Oslo: Universitetsforlaget. (SWAN IV)
- 1972c. "Pyrrhonism revisited." In *Contemporary Philosophy in Scandinavia*, edited by Raymond E. Olsen and Anthony M. Paul. Baltimore and London: Johns Hopkins University Press, pp. 393–403. (in SWAN VIII)
- 1973a. "Attitudes towards nature and interactions with nature (Three lectures given in Hong Kong)." Unpublished manuscript: 20 pages.
- 1973b. "Comments on 'Knowledge versus survival'." *Inquiry* 16: 415–16.
- 1973c. "The place of joy in a world of fact." *North American Review* (Summer): 53–57. (in SWAN X)
- 1973d. "Secondary qualities in the light of Sextus Empiricus' interpretation of Protagoras." Unpublished manuscript: 19 pages.
- 1973e. "The shallow and the deep, long-range ecology movement: A summary." *Inquiry* 16: 95–100. (in SWAN X)
- 1974a. "The ecopolitical frontier: A case study." *Intercollegiate Bulletin* 5: 18–26.
- 1974b. *Equivalent Terms and Notions in Spinoza's "Ethics"*. Oslo: Filosofisk Institutt, Universitet i Oslo.
- 1974c. *Gandhi and Group Conflict: An Exploration of Satyāgraha*. Oslo: Universitetsforlaget. (SWAN V)
- 1974d. "Is freedom consistent with Spinoza's determinism?" In *Spinoza on Knowing, Being, and Freedom: Proceedings of the Spinoza Symposium, Leusden, 1973*, edited by J. G. van der Bend. Assen: Van Gorcum, pp. 6–23. (in SWAN IX)

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1974e. "Martin Heidegger." In *Encyclopaedia Britannica*, 15th ed., pp. 738–41.
- 1975a. "The case against science." In *Science Between Culture and Counter-culture*, edited by C. I. Dessaur. Nijmegen, Netherlands: Dekker and Van de Vegt, pp. 25–48. (in SWAN IX)
- 1975b. *Freedom, Emotion and Self-Subsistence: The Structure of a Central Part of Spinoza's Ethics*. Oslo: Universitetsforlaget. (SWAN VI)
- 1975c. "Possibilism." Unpublished manuscript: 16 pages.
- 1975d. "Why not science for anarchists too? (A reply to Feyerabend)." *Inquiry* 18(2): 183–94. (in SWAN IX)
- 1977a. "Friendship, strength of emotion, and freedom." In *Spinoza Herdacht: 1677, 21 Februari 1977*. Amsterdam: Algemeen Nederlands Tijdschrift voor Wijsbegeerte, pp. 11–19.
- 1977b. "Husserl on the apodictic evidence of ideal laws." In *Readings on Edmund Husserl's Logical Investigations*, edited by J. N. Mohanty. Reprinted from *Theoria* 20 (1954): 53–63. The Hague: Martinus Nijhoff, pp. 67–75. (in SWAN VIII)
- 1977c. "The limited neutrality of typologies of systems: A reply to Gullvag." *Inquiry* 20: 67–72.
- 1977d. "Notes on the methodology of normative systems." *Methodology and Science* 10: 64–79. (in SWAN X)
- 1977e. "Spinoza and ecology." *Philosophia* 7(1): 45–54.
- 1977f. "Spinoza and ecology." In *Specuum Spinozanum, 1677–1977*, edited by S. Hesling. London: Routledge, pp. 418–25.
1978. "Through Spinoza to Mahāyāna Buddhism, or through Mahāyāna Buddhism to Spinoza?" In *Spinoza's Philosophy of Man: Proceedings of the Scandinavian Spinoza Symposium, 1977*, edited by J. Wetlesen. Oslo: Universitetsforlaget, pp. 136–58. (in SWAN IX)
- 1979a. "Modesty and the conquest of mountains." In *The Mountain Spirit*, edited by Michael C. Tobias and H. Drasdo. New York: Overlook Press, pp. 13–16. (in SWAN X)
- 1979b. "Self-realization in mixed communities of humans, bears, sheep, and wolves." *Inquiry* 22: 231–41. (in SWAN X)
- 1979c. "Towards a theory of wide cognitivism." In *Theory of Knowledge and Science Policy*, edited by W. Callebaut, M. De Mey, et al. Ghent: Communication and Cognition, pp. 111–18.
- 1980a. "Environmental ethics and Spinoza's *Ethics*: Comments on Genevieve Lloyd's article." *Inquiry* 23: 313–25.
- 1980b. *Filosofiens Historie I: Fra Oldtiden til Renessansen* (History of philosophy I). Oslo: Universitetsforlaget.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1980c. *Filosofiens Historie II: Fra Renessansen til vår Tid* (History of philosophy II). Oslo: Universitetsforlaget.
- 1980d. "Ideology and rationality" (revised and abbreviated version of 1978b). In *Ideology and Politics*, edited by Maurice Cranston and Peter Mair. Alphen aan den Rijn: Sijthoff, pp. 133–42. (in SWAN IX)
- 1980e. "Whole philosophies as data and as constructs." In *Social Science for What? Festschrift for Johan Galtung*, edited by H. H. Holm and E. Rudeng. Oslo: Oslo University Press, pp. 182–88.
- 1981a. "The empirical semantics of key terms, phrases and sentences." In *Philosophy and Grammar: Papers on the Occasion of the Quincentennial of Uppsala University*, edited by Stig Kanger and Sven Öhman. Dordrecht: D. Reidel, pp. 135–54. (in SWAN VIII)
- 1981b. "The primacy of the whole." In *Holism and Ecology*, edited by Arne Naess and Danilo Dolci. Tokyo: United Nations University (HSDRGPID-61/UNEP-326), pp. 1–10.
- 1981c. "Spinoza's finite God." *Revue Internationale de Philosophie* (135): 120–26. (in SWAN IX)
- 1982a. "An application of empirical argumentation analysis to Spinoza's 'Ethics.'" In *Argumentation: Approaches to Theory Formation*, edited by E. M. Barth and J. L. Martens. Amsterdam: John Benjamins, pp. 245–55. (in SWAN IX)
- 1982b. *Forward, Henryk Skolimowski, Ekofilosofi*. Stockholm: Akademilitteratur.
- 1982c. "A necessary component of logic: Empirical argumentation and analysis." In *Argumentation: Approaches to Theory Formation*, edited by E. M. Barth and J. L. Martens. Amsterdam: John Benjamins, pp. 9–22. (in SWAN VIII)
- 1982d. "Scepticism as the result of sufficiently deep and comprehensive inquiry: An answer to Nicholas Rescher." Unpublished manuscript: 12 pages.
- 1982e. "Simple in means, rich in ends: A conversation with Arne Naess." *Ten Directions* (Summer/Fall): 7–12.
- 1983a. "Einstein, Spinoza, and God." In *Old and New Questions in Physics, Cosmology, Philosophy, and Theoretical Biology: Essays in Honor of Wolfgang Yourgrau*, edited by A. van der Merwe. New York: Plenum Press, pp. 683–87. (in SWAN IX)
- 1983b. "How my philosophy seemed to develop." In *Philosophers on Their Own Work*, edited by Andre Mercier and Maja Sviar. Bern: Peter Lang, pp. 209–26. (in SWAN IX)
- 1983c. "Spinoza and attitudes towards nature." In *Spinoza: His Thought and Work*. Jerusalem: Israel Academy of Sciences and Humanities, pp. 160–75. (in SWAN X)
- 1984a. "The arrogance of anti-humanism." *Ecophilosophy* 6 (May): 8–9. (in SWAN X)

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1984b. "Cultural anthropology: A new approach to the study of how to conceive of our own future (Fifteen lectures given in Vienna)." Unpublished manuscript.
- 1984c. "Deep ecology and lifestyle." In *The Paradox of Environmentalism: Symposium Proceedings in Downsview, Ontario*, edited by Neil Everndon. Downsview, Ontario: Faculty of Environmental Studies, York University, pp. 57–60. (in SWAN X)
- 1984d. "A defense of the deep ecology movement." *Environmental Ethics* 6: 265–70.
- 1984e. "The green utopia of 2084 (A paper presented at the University of Minnesota)." Unpublished manuscript: 9 pages.
- 1984f. "Identification as a source of deep ecological attitudes." In *Deep Ecology*, edited by Michael Tobias. San Marcos, CA: Avant Books, pp. 256–70.
- 1984g. "Intuition, intrinsic value and deep ecology: Arne Naess replies." *The Ecologist* 14 (5–6): 201–03.
- 1984h. "The politics of the deep ecology movement." Unpublished manuscript. (in SWAN X)
- 1984i. Review of *Warriors of the Rainbow: A Chronicle of the Greenpeace Movement*, by Robert Hunter. *Rigen Var Verden* (34): 10–15.
- 1984j. *A Sceptical Dialogue on Induction*. Assen, Netherlands: Van Gorcum.
- 1985a. "Ecosophy T." In *Deep Ecology: Living as if Nature Mattered*, edited by Bill Devall and George Sessions. Salt Lake City: Gibbs Smith, pp. 225–28.
- 1985b. "Gestalt thinking and Buddhism." Unpublished manuscript: 9 single-spaced pages. (in SWAN VIII)
- 1985c. "The world of concrete contents." *Inquiry* 28: 417–28. (in SWAN X)
- 1986a. "The connection of 'Self-realization!' with diversity, complexity, and symbiosis." Unpublished manuscript: 4 pages. (in SWAN X)
- 1986b. "Consequences of an absolute *no* to nuclear war." In *Nuclear Weapons and the Future of Humanity: The Fundamental Questions*, edited by Avner Cohen and Steven Lee. Totowa, NJ: Rowman and Allanheld, pp. 425–36. (in SWAN IX)
- 1986c. "Deep ecology in good conceptual health." *The Trumpeter: Journal of Ecosophy* 3(4): 18–22.
- 1986d. "The deep ecology movement: Some philosophical aspects." *Philosophical Inquiry* 8: 10–31. (in SWAN X)
- 1986e. "Intrinsic nature: Will the defenders of nature please rise?" In *Conservation Biology: The Science and Scarcity of Diversity*, edited by Michael E. Soulé. Sunderland, MA: Sinauer Associates, pp. 504–15.
- 1986f. "Limited definiteness of 'God' in Spinoza's system: Answer to Heine Siebrand." In *Neue Zeitschrift für Systematische Theologie und Religionsphilosophie*, edited by Oswald Bayer. Berlin: Walter de Gruyter, pp. 275–83.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1986g. "Self-realization: An ecological approach to being in the world." Keith Roby Memorial Lecture in Community Science, Murdoch University, Australia, March 12. (in SWAN X)
- 1987a. "Ecosophy, population, and free nature." Unpublished manuscript.
- 1987b. *Eksperternes Syn På Naturens Egenverdi* (Expert views on the intrinsic value of nature). Trondheim: Tapir Forlag. (in SWAN X)
- 1987c. "For its own sake." *The Trumpeter: Journal of Ecosophy* 4(2): 28–29.
- 1987d. "From ecology to ecosophy, from science to wisdom." Unpublished manuscript: 7 pages.
- 1987e. "Green society and deep ecology" (Schumacher Lecture). Unpublished manuscript: 14 pages.
- 1987f. "Notes on the politics of the deep ecology movement." In *Sustaining Gaia: Contributions to Another World View*, edited by Frank Fisher. Glen Waverly, Victoria, Australia: Aristoc Offset, pp. 178–98.
- 1987g. "Notes on the term 'anthropocentrism'." Unpublished manuscript.
- 1987h. "Population reduction: An ecosophical view." Unpublished manuscript: 8 pages. (in SWAN X)
- 1987i. "Scientific and technological biomedical progress as cultural concepts (Colloque de l'Académie Internationale de Philosophie des Sciences, organisé à Bruxelles, du 23 au 28 avril 1984)." In *La responsabilité éthique dans le développement biomedical*. Louvain-la-Neuve, France: CIACO, pp. 199–203.
- 1987j. "Self-realization: An ecological approach to being in the world." *The Trumpeter: Journal of Ecosophy* 4(3): 35–42. (in SWAN X)
- 1987k. "Solidarity, money, and the well-to-do." *Pan Ecology: An Irregular Journal of Nature and Human Nature* 1(3): 1–4.
- 1988a. "The basics of deep ecology." *Resurgence* (January/February): 4–7. (in SWAN X)
- 1988b. "Cultural diversity and the deep ecology movement." Unpublished manuscript: 10 pages. (in SWAN X)
- 1988c. "Deep ecology and ultimate premises." *The Ecologist* 18 (4/5): 128–31.
- 1988d. "The deep ecology movement." In *Problems of International Justice*, edited by S. Luper-Foy. Boulder, CO: Westview Press, pp. 144–48.
- 1988e. "Ecosophy, population, and free nature" (revision of 1987a). *The Trumpeter: Journal of Ecosophy* 5(3): 113–19.
- 1988f. "Environmental activism and Spinoza's *amor intellectualis dei*." Unpublished manuscript.
- 1988g. "Environmental ethics and international justice." *Ecospirit* 4(1).

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1988h. "A European looks at the North American branches of the deep ecology movement." *The Trumpeter: Journal of Ecosophy* 5(2): 75–76.
- 1988i. "Green politics, green parties, deep ecology. How related?" Unpublished manuscript.
- 1988j. "Norway—A developing country with good prospects." In *One Earth—One World*. Oslo: Ministry of Environment.
- 1988k. "Note concerning Murray Bookchin's article 'Social ecology versus deep ecology.'" Unpublished manuscript.
- 1988l. "On the structure and function of paradigms in science." In *Theories of Carcinogenesis*, edited by Olav Hilmar Iversen. Washington, D.C.: Hemisphere Publishing, pp. 1–9. (in SWAN IX)
- 1988m. "Self-realization: An ecological approach to being in the world" (excerpted from the Keith Roby Memorial Lecture, March 12, 1986, and from 1987j). In *Thinking Like a Mountain: Towards a Council of All Beings*, edited by John Seed, Joanna Macy, Pat Fleming, and Arne Naess. Philadelphia: New Society Publishers, pp. 19–30. (in SWAN X)
- 1988n. "Sustainable development and the deep long-range ecology movement." *The Trumpeter: Journal of Ecosophy* 5(4): 138–42.
- 1988o. "What is gestalt thinking? A note." Unpublished manuscript: 5 pages.
- 1989a. "Arne Naess gives his support to Edward Goldsmith's 'The Way.'" *The Ecologist* 19(5): 196–97.
- 1989b. "The basics of deep ecology." In *Actual English*. Kyoto: All English General Information Society. (in SWAN X)
- 1989c. "Deep ecology, wilderness, and the third world." Unpublished manuscript.
- 1989d. "The deepness of deep ecology." *Earth First!* (December): 32.
- 1989e. "*Docta ignorantia* and the application of general guidelines." Unpublished manuscript: 4 pages. (in SWAN X)
- 1989f. "Ecology and ethics (Goteborg paper, 28th September)." Unpublished manuscript.
- 1989g. *Ecology, Community, and Lifestyle: Outline of an Ecosophy*, translated and revised by David Rothenberg. Cambridge, UK: The University Press.
- 1989h. "Ecosophy and gestalt ontology." *The Trumpeter: Journal of Ecosophy* 6(4): 134–37.
- 1989i. "Ecosophy: Beyond East and West" (an interview with Richard Evanoff). *Kyoto Journal* (Summer): 40–44.
- 1989j. "Ecosophy, population, and sustainable development." Unpublished manuscript: 15 pages.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1989k. "The essence of the philosophy of Peter Wessel Zapffe." Unpublished manuscript.
- 1989l. "Finding common ground." *Green Synthesis* (March): 9–10.
- 1989m. "Gestalt ontology and gestalt thinking" (revised version of 1988o). Unpublished manuscript: 5 single-spaced pages. (in SWAN X)
- 1989n. "Metaphysics of the treeline." *Appalachia* (June 15): 56–59. Also in *Edge* 2(4): 25–26. (in SWAN X)
- 1989o. "A note on definition, criteria, and characterizations." Unpublished manuscript: 3 pages. (in SWAN X)
- 1989p. "A note on the function of the 'Eight Points' of deep ecology." Unpublished manuscript: 8 pages.
- 1989q. "Quality of life research." Unpublished manuscript.
- 1989r. "Integration of the 8 points of ecosophy T." Unpublished diagram. (in SWAN X)
- 1990a. "The basics of deep ecology" (summary of 1987 Schumacher Lecture; reprint of 1988a). In *The Green Fuse*, edited by John Button. London: Quartet Books, pp. 130–37. (in SWAN X)
- 1990b. "Deep ecology and conservation biology." *Earth First!* (March 20): 29. (in SWAN X)
- 1990c. "The deep ecology movement and ecologism." *Anarchy* (Summer): 33.
- 1990d. "Deepness of questions and the deep ecology movement." Unpublished manuscript. (in SWAN X)
- 1990e. "An intramural note on transpersonal ecosophy." Unpublished manuscript.
- 1990f. "Is freedom consistent with Spinoza's determinism?" (revision of 1974d). In *Spinoza*, edited by Martin Schewe and Achim Engstler. Frankfurt: Peter Lang, pp. 227–47. (in SWAN IX)
- 1990g. "Japan's second and last mistake." *Japan Environment Monitor* 3(2): 6–7.
- 1990h. "'Man apart' and deep ecology: A reply to Reed." *Environmental Ethics* 12 (Summer): 185–92.
- 1990i. "Peter Wessel Zapffe, obituary." *Aftenposten* (October 15).
- 1990j. "Pushing for a deep change" (interview). *English Journal* 4 (April).
- 1990k. "Spinoza and attitudes towards nature" (revised version of 1983c). Unpublished manuscript. (in SWAN X)
- 1990l. "Sustainable development and deep ecology." In *Ethics of Environment and Development: Global Challenge, International Response*, edited by R. J. Engel and J. G. Engel. Tucson: University of Arizona Press, pp. 87–96. (in SWAN X)

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1991a. "The connection of 'Self-realization!' with diversity, complexity and symbiosis." Unpublished manuscript: 7 pages. (in SWAN X)
- 1991b. "Freedom, self, and activeness according to Spinoza." Unpublished manuscript.
- 1991c. "An interview with Arne Naess." *New Renaissance* 2: 4–5.
- 1991d. "Is it a plus to have definite metaphysics in common? (Regarding Max Oelschlaeger's book, *The Idea of Wilderness*)." Unpublished manuscript: 2+ pages.
- 1991e. "A memorial tribute to Peter Wessel Zapffe." *Norwegian Literature* 1991.
- 1991f. "A note on the prehistory and history of the deep ecology movement." Unpublished manuscript: 4 pages. (in SWAN X)
- 1991g. "Paul Feyerabend—A Green hero?" In *Beyond Reason*, edited by Gonzalo Munévar. Dordrecht: Kluwer Academic, pp. 403–16. (in SWAN X)
- 1991h. "Politics and the ecological crisis: An introductory note." *ReVISION* 13(1): 142–46. (in SWAN X)
- 1991i. "Should we try to relieve cases of extreme suffering in nature?" *PanEcology* 6(1): 1–5. (in SWAN X)
- 1991j. "The Spectacular—enemy?" Unpublished manuscript.
- 1991k. "Spinoza and the deep ecology movement." Unpublished manuscript. (in SWAN X)
- 1992a. "Architecture and the deep ecology movement (Stockholm lecture)." Unpublished manuscript.
- 1992b. "Arguing under deep disagreement" (an abbreviated version of 1992i). In *Logic and Political Culture: Proceedings of the Colloquium "Logic and Politics," Amsterdam, 19–22 February 1990*, edited by E. M. Barth and E. C. W. Krabbe. Amsterdam: North-Holland, pp. 123–31.
- 1992c. "Ayer on metaphysics: A critical commentary by a kind of metaphysician." In *The Philosophy of A. J. Ayer*, edited by Lewis Edwin Hahn. La Salle, IL: Open Court, pp. 329–40.
- 1992d. "Deep ecology and potters in our planet." *The Studio Potter* 20: 38–39.
- 1992e. "Deep ecology for the twenty-second century." *The Trumpeter: Journal of Ecosophy* 9(2): 86–88. (in SWAN X)
- 1992f. "Ecology and ethics." In *Ecology and Ethics*, edited by A. Øfsti. Oslo: Norway Akademi for Kunst og Vitenskap.
- 1992g. "The encouraging richness and diversity of ultimate premises in environmental philosophy." *The Trumpeter: Journal of Ecosophy* 9(2): 53–60. (in SWAN X)

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1992h. "To grow up or to get to be more mature?" *The Trumpeter: Journal of Ecosophy* 9(2): 80–81.
- 1992i. "How can the empirical movement be promoted today? A discussion of the empiricism of Otto Neurath and Rudolph Carnap." In *From an Empirical Point of View: The Empirical Turn in Logic*, edited by E. M. Barth, J. Vandormael, and F. Vandamme. Gent, Belgium: Communication and Cognition, pp. 107–55. (The original German version, *Wie fördert man heute die empirische Bewegung? Eine Auseinandersetzung mit dem Empirismus von Otto Neurath und Rudolph Carnap*, was written during 1937–39. It appeared in Oslo University's Filosofiske Problemer 19, 1956). (in SWAN VIII)
- 1992j. "Introductory biology and 'life appreciation' courses." *The Trumpeter: Journal of Ecosophy* 9(3): 126.
- 1992k. "Maturity, adulthood, boxing, and playfulness." Unpublished manuscript.
- 1992l. "Mountains (revised from original 1991 manuscript)." Unpublished manuscript: 6 double-spaced pages.
- 1992m. "The principle of intensity." Unpublished manuscript (article originally written in the 1940s): 4 pages. (in SWAN VIII)
- 1992n. "Radical thinking for desperate times." *The Independent* (January).
- 1992o. "Spinoza and the deep ecology movement" (Michigan lecture, revised from 1991k). Unpublished manuscript. (in SWAN X)
- 1992p. "Sustainability! The integral approach." In *Conservation of Biodiversity for Sustainable Development*, edited by O. T. Sandlund, K. Hindar, and A. H. D. Brown. Oslo: Scandinavian University Press, pp. 303–10. (in SWAN X)
- 1992q. "Third world, deep ecology, socialism, and Hitlerism: An open letter." *The Deep Ecologist* 43: 4–5.
- 1992r. "The three great movements." *The Trumpeter: Journal of Ecosophy* 9(2): 85–86. (in SWAN X)
- 1992s. "Tvergastein: An example of place." Unpublished manuscript: 18 pages. (in SWAN X)
- 1992t. "What about science in ecologically sustainable societies?" Unpublished manuscript.
- 1993a. "Beautiful action: Its function in the ecological crisis." *Environmental Values* 2(1): 67–71. (in SWAN X)
- 1993b. "The breadth and the limits of the deep ecology movement." *Wild Earth* 3: 74–75. (in SWAN X)
- 1993c. "Culture and environment." In *Culture and Environment: Interdisciplinary Approaches*, edited by Nina Witoszek and Elizabeth Gulbrandsen. Oslo: Centre for Development and the Environment, University of Oslo, pp. 201–09.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1993d. "The deep ecological movement: Some philosophical aspects." In *Environmental Ethics: Divergence and Convergence*, edited by Susan J. Armstrong and Richard G. Botzler. New York: McGraw-Hill, pp. 411–21. (in SWAN X)
- 1993e. *Deep Ecology and Politics* (a revision of three articles, "The three great movements," "Comments on the planned official Norwegian presentation in Rio, April 1992," and "Politics and the ecological crisis: An introductory note"). Centre for Development and the Environment, University of Oslo, working paper 1993.7. (in SWAN X)
- 1993f. "The deep ecology 'Eight Points' revisited." Unpublished manuscript: 9 pages. (in SWAN X)
- 1993g. "Everything really important is dangerous" (an interview with Arne Naess by David Rothenberg). In *Wisdom and the Open Air: The Norwegian Roots of Deep Ecology*, edited by Peter Reed and David Rothenberg. Minneapolis: University of Minnesota Press, pp. 99–111.
- 1993h. "Fundamentalism, Rawls, and the Eight Points of the deep ecology movement: A note." Unpublished manuscript: 3 pages.
- 1993i. "Gandhian nonviolent verbal communication: The necessity of training." Unpublished manuscript: 9 pages.
- 1993j. "How should supporters of the deep ecology movement behave in order to affect society and culture?" *The Trumpeter: Journal of Ecosophy* 10(3): 98–100.
- 1993k. "In praise of books of the big outside." *Wild Earth* 3: 88–89.
- 1993l. "Logical empiricism and the uniqueness of the Schlick seminar: A personal experience with consequences." In *Scientific Philosophy*, edited by Friedrich Stadler. Dordrecht: Kluwer Academic, pp. 11–25. (in SWAN VIII)
- 1993m. "Migration and ecological unsustainability." Unpublished manuscript: 5 pages.
- 1993n. "Mountains and mythology." Unpublished manuscript: 2 pages.
- 1993o. "The politics of the deep ecology movement." In *Wisdom and the Open Air: The Norwegian Roots of Deep Ecology*, edited by Peter Reed and David Rothenberg. Minneapolis: University of Minnesota Press, pp. 82–99. (in SWAN X)
- 1993p. "Simple in means, rich in ends" (an interview with Arne Naess by Stephan Bodian). In *Environmental Philosophy: From Animal Rights to Radical Ecology*, edited by Michael E. Zimmerman, J. Baird Callicott, George Sessions, Karen J. Warren, and John Clark. Englewood Cliffs, NJ: Prentice-Hall, pp. 437 ff.
- 1993q. *Spinoza and the Deep Ecology Movement*. Delft: Eburon. (in SWAN X)
- 1993r. "Theory, practice, and its synthesis within a movement." Unpublished manuscript: 1 page.
- 1993s. "The tragedy of Norwegian whaling: A response to Norwegian environ-

COMPREHENSIVE NAESS BIBLIOGRAPHY

- ment group support for whaling." *North Sea Monitor* (December): 10–12. (in SWAN X)
- 1993t. "'You assert this?' An empirical study of weight-expressions." In *Empirical Logic and Public Debate: Essays in Honour of Else M. Barth*, edited by Erik C. W. Krabbe, René José Dalitz, and Pier A. Smit. Amsterdam and Atlanta, GA: Rudopi, pp. 121–32. (in SWAN VIII)
- 1994a. "Climbing and the deep ecology movement." Unpublished manuscript: 3 pages.
- 1994b. "Creativity and gestalt thinking." *The Structuralist* 33/34: 51–52. (in SWAN VIII)
- 1994c. "Culture and environment" (reprint of 1993c). *International Journal of Ecoforestry* 10(4): 158–161.
- 1994d. "From psychology to ontology (Ireland lecture)." Unpublished manuscript: 6 pages.
- 1994e. "A green history of the world (Lecture for Schumacher College, July)." Unpublished manuscript.
- 1994f. "The heart of the forest." *International Journal of Ecoforestry* 10: 40–41. (in SWAN X)
- 1994g. "How my philosophy seemed to have developed: 1983–1994." Unpublished manuscript: 7 pages. (in SWAN IX)
- 1994h. "The Norwegian roots of deep ecology." In *Nature: The True Home of Culture*, edited by Børge Dahle. Oslo: Norges Idrettshøgskole, pp. 15–18.
- 1994i. "Trust and confidence . . . An answer to Rescher's reappraisal of scepticism." Unpublished manuscript: 16 pages. (in SWAN VIII)
- 1994j. "What do we as supporters of the deep ecology movement stand for and believe in?" Unpublished manuscript: 9 double-spaced pages. (in SWAN X)
- 1995a. "The apron diagram." In *The Deep Ecology Movement: An Introductory Anthology*, edited by Alan Drengson and Yuichi Inoue. Berkeley, CA: North Atlantic Books, pp. 10–12. (in SWAN X)
- 1995b. "Deep ecology for the twenty-second century." In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions. Boston: Shambhala Publications, Inc., pp. 463–67. (in SWAN X)
- 1995c. "Deep ecology in the line of fire." *The Trumpeter: Journal of Ecosophy* 12(3): 146–49.
- 1995d. "Deepness of questions and the deep ecology movement." In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmental-*

COMPREHENSIVE NAESS BIBLIOGRAPHY

- ism*, edited by George Sessions. Boston: Shambhala Publications, Inc., pp. 204–12. (in SWAN X)
- 1995e. “The ‘Eight Points’ revisited.” In *Deep Ecology for the Twenty-first Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions. Boston and London: Shambhala, pp. 213–21. (in SWAN X)
- 1995f. Foreword to *The Interconnected Universe*, by Irvin Laszlo. Singapore: World Scientific, pp. v–vii.
- 1995g. “Industrial society, postmodernity, and ecological sustainability.” *Humboldt Journal of Social Relations* 21: 131–46. (in SWAN X)
- 1995h. “Mountains and mythology.” *The Trumpeter: Journal of Ecosophy* 12(4): 165.
- 1995i. “Notes on gestalt ontology.” Unpublished manuscript.
- 1995j. “Ranking, yes, but the inherent value is the same: An answer to William C. French.” Published in Witoszek 1999 (see references). (in SWAN X)
- 1995k. “Seven point ecology (Some attitudes and convictions held by supporters of the deep ecology movement).” *Resurgence* (January/February): 26–27.
- 1995l. “The Third World, wilderness, and deep ecology.” In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions. Boston: Shambhala Publications, Inc., pp. 397–407. (in SWAN X)
- 1995m. “Antifascist character of the eight points of the deep ecology movement.” Unpublished manuscript. (in SWAN X)
- 1995o. “Ecology, sameness & rights.” In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*, edited by George Sessions. Boston and London: Shambhala Publications, Inc., pp. 222–24.
- 1996a. “The Arctic dimension outside and inside us.” In *Deep Ecology in the High Arctic: Proceedings of the 1994 International Ecophilosophical Symposium, Svalbard, Norway, 29th August–2nd September*, edited by Elisabeth Stoltz Larsen and Robin Buzza. Longyearbyen: Norwegian Polar Institute, pp. 13–16.
- 1996b. “Comments on Harold Glasser’s ‘Deep ecology approach’ (DEA).” In *Philosophical Dialogues: Arne Naess and the Progress of Ecophilosophy*, edited by Nina Witoszek and Andrew Brennan. Oslo: Centre for Development and the Environment, pp. 399–401.
- 1996c. “Deep ecology in the line of fire.” In *Rethinking Deep Ecology: Proceedings from a Seminar at SUM, University of Oslo, 5 September 1995*, edited by Nina Witoszek. Oslo: Centre for Development and the Environment, University of Oslo, pp. 107–15.
- 1996d. “Does humanity have a cosmic role? Protecting and restoring the planet.” *Environment Network News* (May/June).

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1996e. "Ecosophy, community, and lifestyle." In *Humanism Toward the Third Millennium*, edited by Fons Elders. Amsterdam: VUB Press, pp. 83–93.
- 1996f. "Heidegger, postmodernism theory, and deep ecology." Unpublished manuscript: 4 pages.
- 1996g. "Living a life that reflects evolutionary insight." *Conservation Biology* 10: 1557–59.
- 1996h. "A response to Rowe's 'From shallow to deep ecological philosophy'." *The Trumpeter: Journal of Ecosophy* 13(1): 32.
- 1996i. "Vagueness and ambiguity." In *Philosophy of Language*, edited by A. P. Martinich. New York: Oxford University Press, pp. 407–17.
- 1997a. "Conquest of mountains." *Resurgence* (July/August): 24–25.
- 1997b. "'Free nature': An interview with Ian Angus." *Alternatives Journal* 23(3): 18–21.
- 1997c. "Heidegger, postmodern theory, and deep ecology." *The Trumpeter: Journal of Ecosophy* 14(4): 181–83.
- 1997d. "Insulin shock method and the economic crisis in Vienna in 1934." In *Some Notes on Madness*, edited by Tarja Heiskanen. Helsinki: Finnish Association for Mental Health, SMS Publishers.
- 1997e. "An outline of problems ahead" (talk given at Environmental Justice Conference, Melbourne, October 1997). Unpublished manuscript. (in SWAN X)
- 1998a. "All together now: A review of E. O. Wilson's *Consilience*." *New Scientist* (22 August): 42–43.
- 1998b. "Arne Naess speaks about ecophilosophy and solidarity." *Ragtime* 5: 16–17.
- 1998c. "Interview of Arne Naess by Casey Walker." *Wild Duck Review* 4(1): 18–20.
- 1998d. "The spirit of the Vienna Circle devoted to questions of *Lebens- und Weltauffassung*." In *Game Theory, Experience, Rationality*, edited by W. Leinfellner and E. Köhler. Dordrecht: Kluwer Academic, pp. 359–67. (in SWAN VIII)
- 1998e. "The term 'development' today." *Development Today* 8(1): 10–11.
- 1999a. "Articulation of normative interrelation: An information theoretical approach." Unpublished manuscript.
- 1999b. "Ecoforestry and the deep ecology movement." In *Proceedings of the Fourth Biannual Conference of the Taiga Rescue Network, October 5–10*, edited by Rein Ahas, Taime Puura, Anne Janssen, and Elisa Peters, pp. 72–73. Tartu, Estonia: Estonian Green Movement.
- 1999c. "An outline of the problems ahead." In *Global Ethics and the Environment*, edited by Nicholas Low. London and New York: Routledge. (in SWAN X)

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1999d. "The principle of intensity." *Journal of Value Inquiry* 33: 5–9. (in SWAN VIII)
2000. "Avalanches as social constructions." *Environmental Ethics* 22 (Fall): 335–36. (in SWAN X)

By Arne Naess and Coauthors

1951. Naess, Arne, and Stein Rokkan. "Analytical survey of agreements and disagreements." In *Democracy in a World of Tensions*, edited by Richard McKeon with the assistance of Stein Rokkan. Chicago: University of Chicago Press, pp. 447–512. (in SWAN IX)
1955. Galtung, Johan, and Arne Naess. *Gandhis Politiske Etikk* (Gandhi's political ethics). 2d ed. 1968. Oslo: Johan Grundt Tanum.
1956. Naess, Arne, Jens Christophersen, and Kjell Kvalø. *Democracy, Ideology, and Objectivity: Studies in the Semantics and Cognitive Analysis of Ideological Controversy*. Oslo: Universitetsforlaget.
1960. Naess, Siri, and Arne Naess. "Psychological research and human problems." *Philosophy of Science* 27: 134–46.
1964. Austin, John L., and Arne Naess. "On Herman Tønnessen's 'What should we say'." In *Eighteen Papers on Language Analysis and Empirical Semantics*, edited by Herman Tønnessen. Edmonton, Alberta: University of Alberta, pp. 143–49.
1967. Naess, Arne, and Jon Wetlesen. *Conation and Cognition in Spinoza's Theory of Affects: A Reconstruction*. Oslo: University of Oslo.
1969. Naess, Arne, and Sigmund Kvaløy (translator). "Some ethical considerations with a view to mountaineering in Norway." *American Alpine Journal* (London: *The Alpine Club*): 230–33. (in SWAN X)
- 1972a. Naess, Arne, and Alastair Hannay. "An appeal to the cramped scholar by way of a foreword." In *An Invitation to Chinese Philosophy: Eight Studies*, edited by Arne Naess and Alastair Hannay. Oslo: Universitetsforlaget, pp. vii–xv.
- 1972b. Naess, Arne, and Alastair Hannay, eds. *An Invitation to Chinese Philosophy: Eight Studies*. Oslo: Universitetsforlaget.
1974. Naess, Arne, and A. J. Ayer. "The glass is on the table: An empiricist versus a total view" (a debate between Ayer and Naess). In *Reflexive Water: The Basic Concerns of Mankind*, edited by Fons Elders. London: Souvenir Press, pp. 11–68. (in SWAN VIII)
1980. Naess, Arne, and Jon Hellesnes. "Norway." In *Handbook of World Philosophy Since 1945*, edited by John Burr. Westport, CT: Greenwood Press, pp. 159–71.
1984. Naess, Arne, and George Sessions. "Basic principles of deep ecology." *Eco-philosophy* 6 (May): 3–7.

COMPREHENSIVE NAESS BIBLIOGRAPHY

- 1987a. Naess, Arne, and Ivar Mysterud. "Philosophy of wolf policies I: General principles and preliminary exploration of selected norms." *Conservation Biology* 1: 22–34. (in SWAN X)
- 1987b. Naess, Siri, Arne Naess, and Torbjørn Moum and Tom Sørensen with the cooperation of Arne Mastekaasa. *Quality of Life Research: Concepts, Methods, and Applications*. Oslo: Institute of Applied Social Research.
1988. Seed, John, Joanna Macy, Pat Fleming, and Arne Naess, eds. *Thinking Like a Mountain: Towards a Council of All Beings*. Philadelphia: New Society Publishers.
1989. Naess, Arne, Liu Shiao-Ru, and Nicholas Gould. "Deep ecology (A conversation on 'deep ecology' and Taiwan's environmental problems)." *Issues and Options* 1(44): 1–6.
1990. Mysterud, Ivar, and Arne Naess. "Philosophy of wolf policies II: Supernational strategy and emergency interim management." Unpublished manuscript: 14 pages.
1995. Naess, Arne, and Johan (Bilder) Brun. *Det Gode Lange Livs Far: Hallingskarvet sett fra Tvergastein* (The good, long life's father: Hallingskarvet from Tvergastein). Oslo: N. W. Damm and Son.
1996. Gullvåg, Ingemund, and Arne Naess. "Vagueness and ambiguity." In *Philosophy of Language*, edited by Marcelo Dascal, Dietfried Gerhardus, Kuno Lorenz, and Georg Meggle. Berlin and New York: Walter de Gruyter, pp. 1407–17.
1997. Naess, Arne, and Helena Norberg-Hodge. "Self-realization and society." *Resurgence* (January).
- 1998a. Grøn, Øyvind, and Arne Naess. *Introduction to General Relativity and Its Mathematics*. Oslo: Høgskolen i Oslo.
- 1998b. Naess, Arne, and Per Ingvar Haukeland. *Livsfilosofi: et personlig bidrag om følelser og fornuft / Arne Naess med Per Ingvar Haukeland*. Oslo: Universitetsforlaget.
2000. Naess, Arne. "Deep ecology and education: A conversation with Bob Jickling." *Canadian Journal of Environmental Education* 5: 48–62. (in SWAN IX)
2002. Naess, Arne, with Per Ingvar Haukeland. *Life's Philosophy: Reason and Feeling in a Deeper World*. Translated by Roland Huntford. Foreword by Bill McKibben. Introduction by Harold Glasser. Athens and London: University of Georgia Press.

Index

- absolute and final principles, Aristotle's doctrine of, 478
- absolutist *ding-an-sich* conceptions, rejection of, 451–52
- abstract structures (of reality), 449, 453, 455–56, 458, 462, 465
- abundance, 595
- “acceptance of life,” 134
- acting, from inclination vs. from duty, 124
 - See also* duty
- action research, 496–97
- activeness, 112, 113, 408–09
- activism, 73, 87, 88, 408
 - fighting the dominance of something vs. trying to eliminate it, 615
 - See also* deep ecology movement supporters; movements
- activists, 98, 255, 596
- agricultural commodities and economics, 586
- AIDS, 164, 165
- “alternative (future)” movements, 64, 88
 - See also* movements
- altruism, 52, 53, 519
- Amnesty International, 223, 288
- amor intellectualis*, 417
- amor intellectualis Dei*, 400–401
- anarchism, 216, 506
- Andersnatten, 463–65
- animal rights, 214, 291, 292, 298–99, 329–30
 - compared with human rights, 416–17
 - declarations of, 568
 - Gandhi on, 243
 - moral capacity as necessary for rights, 299–300
 - obligations as requirement for rights, 62, 614
 - point 3 of Eight Points and, 62
 - right to self-expression, 390
 - See also* life, right to
- animal welfare and animal cruelty, Gandhi and, 524
- animals
 - classes, 293
 - condemned to death for “crimes” committed, 296–97
 - death, 131
 - dignity, 505
 - identification with, 143, 302, 518–19
 - intrinsic/inherent value, 95, 330
 - See also* value (inherent/intrinsic)
 - killing (*see* animal rights; whaling)
 - “mere,” 330
 - mixed communities with wolves, sheep, and sheep owners, 303–06
 - norms about fairness toward, 95–96
 - suffering, 131, 132
 - viewing humans as, 265
 - wild-animal “management,” 296–97
 - See also* under self-realization; *specific topics*
- anthropocentric arguments, 46
- anthropocentrism, 47, 72, 186, 244, 406
- anthropology, philosophical, 623n1
- anthropomorphism, 581–82
- anticlass posture, 8–9
- antihumanism, arrogance of, 185–87
- antinuclear campaign, 215–16
- appearance vs. reality, 458–60
- apron diagram, 75–81
- areté* (virtue), 267, 415
- arguing from first principles, role of, 491–97
- argumentation and debate, 16, 80, 281, 501, 597
 - See also* deep ecology, on the defensive; non-violence, Gandhian form of
- argumentation patterns, 192
- Aristotle, 146–47, 478
- Armstrong-Buck, Susan, 237–39

INDEX

- ātman*, 488, 524, 525, 531, 619n8
 attributes of extension and non-extension, 391
 Australia, 15
 authoritarian policies, 100
 See also Eight Points of deep ecology movement, antifascist character
 Auxter, Thomas, 294
 avalanches as social constructions, 559–60
 axioms, 399–400, 583
 Ayer, Alfred, 544
- Baastad, Kjell Friis, 371, 375
 Barents Sea, 196, 261, 331
 Barth, Fredrik, 269, 272
 bears, 295, 296–300
 beautiful action
 function in ecological crisis, 121–27
 See also under Kant; “moral acts”
 behaviorism, 392
 beliefs, level-1 through 4, 77–79
 Bennett, David, 457, 458
 Bentham, Jeremy, 30, 479
 Bergland, Trygve, 169
 Bhagavad Gita, 242–43, 415
 biocentric vs. ecocentric, 18
 biodiversity, 148, 193, 595
 See also diversity
 “biospheric,” 618n3
 body, 113
 Bookchin, Murray, 100
 Brundtland, Gro Harlem, 143
 Brundtland Report, 140, 143, 144
 Buddha (Siddhartha Gautama), 525
 Buddhism, 50, 116, 242, 245
 budgets, private vs. public, 280
 bureaucracy, 4
- Callicott, J. Baird, 59, 60, 242, 458
 Cameron, Mr., 4
 Canada, 15
 capitalism, 216, 587
 See also free market
 Capra, Fritjof, 59
 carbon dioxide production, 196
 Carson, Rachel, 27, 89, 191–92, 405, 491
 caste system, 534
causa, 239–40
 centers of development, 521
 centralization of power, 588
 See also decentralization; globalization
 chain, 617n2
- change, deepness of, 30
 characterizations, 539–40
 chemistry, teaching, 583–84
 children, teaching
 about environment, 125–26
 See also education; schools
 Christianity, 50
 civil disobedience campaigns, 433–36
 See also Gandhian ethics of conflict resolution
 Clark, Stephen R. L., 297
 class differences, elimination of, 210
 class suppression, 210–11
 cognitive self-determination, 508
 collectives, 94, 112
 commiseration, 117
 Commoner, Barry, 388
 communication
 between conflicting groups, 597
 nonviolent, 597
 communism, 109, 216
 communities
 mixed, 304, 516
 vs. societies, 253, 303, 507
 web of, and its administration, 507–09
 “compassion priority norm,” 132–33
 complexity, 9–10, 37–39, 293, 295, 534
 vs. complication, 533
 conflict resolution
 research suggestions in area of, 440–43
 See also Gandhian ethics of conflict resolution
 conformity, cultural, 235–36
 consciousness, 105, 460
 conservation, defined, 565
 conservation biology, deep ecology and, 325–28
 conservation efforts, 276
 See also wolf policies; *specific topics*
 conservation strategy, 36
 conservatism, 22
conserve, 632n7
 “Constructive Programme, The,” 433–34
 consumerism, 585
 consumption, 578–79
 of natural resources, 167, 217
 criteria/criterion, 537–40
 history of the term, 537
 types of, 537–38
 critical philosophy, 121
 crowding, 8, 608
 See also overpopulation and overcrowding; population
 “cult of life,” 134

INDEX

- “cult of nature,” 134
- cultural anthropology, 91, 623–24nn1–2
 - the new, 263–65
- cultural differences, deepness of, 265–69
- cultural diversity, 238, 272, 502
 - deep ecology platform and, 269–73
 - deep vs. shallow ecological approach to, 44
 - social justice, sustainable development, and, 572–75
- cultural evolution, 265
- cultural systems and suffering, 135
- cultures
 - development from premodern or postmodern, 578
 - disrespect in the West of nonindustrial, 579–81
 - extinction, 270–71
 - peaceful coexistence of different, 233
 - richness (*see* cultural diversity)
- Darwin, Charles, 136
- Davidson, Donald, 244, 245, 247, 623n5
- de principiis non est disputandum*, 495
- death and dying, 131
- debate. *See* argumentation and debate; mediators
- decentralization, 10–11, 197, 258, 317, 541–42
 - See also* centralization of power
- decision making, 10–11, 501
 - See also* argumentation and debate
- deconstruction, 559
- deep ecological questioning. *See* questioning
- deep ecologists, 90, 618n3
 - what they have in common, 18–20, 57
 - See also* Eight Points of deep ecology movement
- deep ecology, 90
 - a call to speak out, 35–37
 - on the defensive, 33–35
 - definitions and meanings, 538–39, 622n1
 - goals, 14
 - illustrated as a derivational system, 48–49
 - for the 22nd century, 611–16
 - possible scenarios, 613
 - principles, 13–20, 48
 - multiple roots of, 49–50
 - See also* Eight Points of deep ecology movement
 - reasons for a, 46–47
 - terminology, 64, 187
 - See also specific topics*
- deep ecology approach, aspects of, 14–15
- deep ecology movement, 14
 - alternate names for, 41
 - attitudes and tendencies characteristic of, 105–07
 - authors who have contributed to, 617–18n2
 - breadth and limits, 71–74
 - defining, 37, 58, 220, 230
 - fascist tendencies, 100
 - See also* Eight Points of deep ecology movement, antifascist character
 - four-level conception of (*see* apron diagram)
 - historical perspective, 21–22
 - history and prehistory/forerunners of, 89–92
 - key slogans, 201–03
 - persistent “whys” and “hows,” 23–31
 - plurality and unity, 77
 - politics, 194
 - role in political life, 200
 - supporters, 72
 - terminology, 618n3
 - vision of reality, 16
 - See also specific topics*
- deep ecology movement supporters
 - what they stand for and believe in, 83–88
- deep ecology platform, 275
 - apron diagram, 75–81
 - See also* Eight Points of deep ecology movement
- deepness, 21–22, 26, 42, 79
 - See also* shallow ecology movement
- “deepness and broadness of attitude” approach, 21–22
- definition, 538–40
- deforestation. *See* forest(s), depletion of
- Dæhlin, Knut, 161
- demand, 140, 141
- democracy, 99–100
- depreciation, 580
- Descartes, René, 475–77
- “determined in its essence,” 622n3
- determinism and determination, 240
- deva* (god), 267
- Devall, Bill, 230
- developed and undeveloped countries, 141–42, 266, 270, 594–96, 600
 - See also* low material standard, countries with; poor countries; rich industrial countries
- developers and conservers, confrontations between, 456–57
- developing countries, 141, 508, 564
- development, 266
 - centers of, 521

INDEX

- development (*continued*)
 - defined, 565, 566
 - ecologically unsustainable, 141–42, 563–64, 595
 - See also* sustainability
 - environment and, 599, 603, 606
 - conflicts between, 594
 - terminological and conceptual recommendations regarding, 593–98
- Diderot, Denis, 465
- dignity, 505
- Diogenes of Sinope (Diogenes in the Barrel), 139, 140
- diversity, 8–9, 270
 - of life forms, 18, 37–39, 99, 153, 154
 - maximum, 502–03, 533, 534
 - vs. plurality, 532, 533
 - and realization of potentials, 292–93
 - vital needs and right to reduce, 568
 - See also* biodiversity; cultural diversity
- “diversity norm,” 61–62
- Diwakar, Ranganath R., 434
- docta ignorantia* (conscious ignorance), 17, 503, 542, 543
- doomsday prophets. *See* ecological doomsday prophets; pessimism
- Douglas, William O., 390
- dread, 111
- Drengson, Alan, 328
- duplication, theory of, 454–55, 460
- duty, 122–23, 125
 - acting from inclination vs. from, 124, 127
 - as relational, 125
 - See also* obligations
- “Earth First!,” 201
- ecocentrism, 406–07
- ecofeminism, 80, 222
- ecological consciousness, 86, 105
- ecological crisis, 98, 398–400, 411, 612, 615
 - positive function, 92
 - See also under* beautiful action; politics
- ecological doomsday prophets, 207, 603–04, 612
 - See also* pessimism
- ecological egalitarianism. *See* egalitarianism
- ecological questioning. *See* questioning
- ecological self, 516, 517, 520, 522, 523
- ecologism, 12
- ecologists, 9, 207
- ecology, science of, 95
- economic globalization, 585
 - See also* globalization
- economic growth, 171
 - if-statements and exponential growth, 207–08
 - sustainable, 40, 65, 141, 563–64
- economy, mixed, 587
- ecophilosophical aspect of deep ecology movement, 89–90
- ecophilosophy, 41, 203
 - See also* ecosophy
- ecopolitical issues, checklist of, 208–12
- ecopolitics, 203
- ecosophers, 518, 557–58
- ecosophical development, 563
- Ecosophy T, 51–54, 59, 320, 636–37n2
 - codification of, 534
 - diagrams of, 53, 484–85
 - diversity, complexity, and, 533
 - fundamental norm, 52
 - hypothetical assumptions of, 134
 - integration of Eight Points into, 535
 - motivations for developing, 134
 - norms in, 310
 - See also under* Self-realization
 - population issues and, 275
 - relieving suffering and, 135
 - self-realization and, 488, 489
 - See also* self-realization
 - See also under* Feyerabend
- ecosophy(ies), 11–12, 17, 59, 96–99, 232, 601
 - See also* total view(s)
- ecosystemic knowledge, 96
- ecosystemic rights, 214
 - See also* rights
- ecosystems, 222
 - mature, 387
 - respect for, 96
 - noninterference with, 38–40
 - preserving, 129–30
 - theory of, 9–10
- education, 210
 - deep vs. shallow ecological approach to, 45–46
- education campaigns, environmental, 36–37
 - See also* schools
- egalitarianism (biospherical), 296
 - “Against biospherical egalitarianism” (French), 547
 - applications of the term, 187
 - biospherical egalitarianism in principle, 68
 - deep ecology movement and, 7–9

INDEX

- equal rights (in principle) and, 292
- Gandhi and, 524
- “human lot” and, 186
- shallow-deep ecology spectrum and, 47
- species egalitarianism in principle, 300
- Spinoza and, 407
- two-factor, 295
- ego, 526
- ego-realization, 488
- ego trips, 525, 526
- egocentrism. *See* frames of reference
- Eight Points of deep ecology movement, 37–42, 220, 270, 564–65, 621n1
 - antifascist character, 93–101
 - elaboration and examples, 77–78
 - integration into Ecosophy T, 535
 - revisited, 57–66
 - World Conservation Strategy and, 565–67
- Einstein, Albert, 356
- elections, 206
- elitism, 327–28
- empathy, 517–18
 - See also* identification
- empowerment, 73
- Encyclopedia of Unified Science* (Neurath et al.), 479
- energy consumption, 217
- energy resources, 196–97, 599–600
- environment, 202
 - economics, measurement, and, 4
 - problems of protecting, 3–5
 - relationship with, 14–15
 - See also specific topics*
- environmental, peace, and social (justice) movements, 72–73, 88, 193–94, 219–24, 236, 613–14
 - See also* peace movement
- environmental decisions, philosophical position
 - of persons who influence, 149–51
- “environmental fascism,” 94, 100
- environmental ontology vs. environmental ethics, 527
- environmental philosophy
 - main problem of, 237–38
 - richness and diversity of ultimate premises in, 229–49
- environmentalism, 240
 - philosophical premises, 118–19
 - problems with the word, 614
 - radical, 253, 614
- environmentalists, 3–4, 450
 - who predicted environmental catastrophes (*see* ecological doomsday prophets)
 - See also* experts
- Enzenberger, Hans Magnus, 542–43
- epistemology, 464
 - See also* ignorance; scepticism
- epoché*, 473
- equal right to live and blossom, 494–95
- equal rights, 506
- equality, sameness, and rights, 67–70
 - See also* egalitarianism
- equity, 97
- essence, 630n7
- ethical obligations, 97, 98
- ethical rules and ethical views, 311–12
- ethics, 234, 241, 242
 - ecosystems and, 129–30, 389–90
 - ontology and, 456–58
 - See also* Gandhian ethics of conflict resolution; justice; “moral acts”; *specific topics*
- Ethics* (Spinoza). *See under* Spinoza
- ethnography, 623n1
- ethnology, 623n1
- ethology, 392
- Euclid, 399
- European Common Market (EEC), 210
- European philosophy and religion, 90–91
- European Union (EU), 585–88, 602–03
- evil, 112, 388, 459, 581
- evolution, 136
- exclusivity, relations of, 292
- existentialist thinking, 463
- experience, 459, 471
- experts
 - attitudes of, 151
 - role of, 178–80
 - See also* environmentalists
- exploitation, 487
- external relation, 522
- extinction, 270–71, 305–06, 330
- facts, 18
- farms, family
 - in Norway, 586
- fascism, 93–95, 100
 - See also* Eight Points of deep ecology movement, antifascist character; Mussolini; Nazi Germany
- fascist ideas, popularity of, 24

INDEX

- feminism. *See* ecofeminism
- Feyerabend, Paul, 511
- fundamental philosophies, Ecosophy T, and, 505–07
- on Lakatos, 636n2
- as mild and green, 499–500
- principle of maximum diversity and, 503
- principle of minimum interference and, 503–05
- scientific worldviews and, 509–10
- traditions and rationality, 500–02
- and the web of communities and its admiration, 507–09
- first-order comments, 99
- fisheries, policies for, 126–27
- Foreman, Dave, 100
- forest(s)
- depletion of, 194, 255–56, 580
- heart of the, 551–53
- See also* treeline; trees
- Foundation for Deep Ecology, 603
- Fox, Warwick, 26, 60, 543
- frames of reference, 470
- explication of one as involving introduction of another, 473–77
- See also* total/fundamental frames; total view(s)
- France, 15
- Francis of Assisi, St., 382
- free market, 585–87
- “free nature,” 259–60
- free nature, darker side of, 131
- free society, 507
- freedom, 238, 296, 391, 409, 539, 633n8
- economic, 585–87
- See also* self-realization
- French, William C., 547, 550
- Freud, Sigmund, 118, 518
- Fromm, Erich, 518–20
- fundamental frames. *See* total/fundamental frames
- fundamentalists vs. realists, 16
- Future in Our Hands, The, 174, 177
- Gaia hypothesis, 403, 567
- Galtung, Johan, 73
- Gandhi, Mahatma, 60, 96, 111, 242–43
- on animal welfare, 243, 524
- biospherical egalitarianism and, 524
- metaphysics, 523–25
- Gandhi and Group Conflict* (Naess), 636n1
- Gandhian ethics of conflict resolution, 422
- systematization D of, 422–28
- application to efforts of peaceful international cooperation, 437–40
- exemplification and elaboration, 433–37
- norms and hypotheses, 428–33
- gas. *See* natural gas
- Gathering for the Creation, 168
- Gauri Shankar, 335–36
- Gautvik, Morten, 179
- genetic relations, defined, 75
- Germany, 15
- See also* Nazi Germany
- gestalt apperception, 461
- gestalt ontology
- deep ecology movement and, 460
- and gestalt thinking, 235, 386, 410, 455–63
- gestalt perception, 461
- gestalt principles, 9–10, 202
- gestalt thinking
- defined, 463
- See also* gestalt ontology
- gestalt(s)
- higher-order and subordinate, 556
- and the process of identification, 465–66
- global action, 40, 258–59
- global attitudes. *See* place-corrosive process
- global community, 198
- global ecology movement, 141
- “global” vs. “international,” 584
- globalization, 585, 602–03
- See also* centralization of power
- God, 382
- as finite vs. infinite, 404
- functions of, in Spinoza’s *Ethics*, 404
- See also* Spinoza, *Ethics*
- identified with Nature, 383–86, 388, 389, 402–04, 406, 629n3
- See also under* Spinoza, *Ethics*
- immanence, 383–87, 398, 401–06
- love of, 401, 405–06, 410
- power of, 389
- See also* *deus* (god)
- Goethe, Johann Wolfgang von, 235, 397, 411
- Goldsmith, Edward, 65
- goodness, 129–33, 388, 581–82
- Gran, Finn, 174–75
- Grand Canyon, 3–4
- grassroots activism, 613–14
- See also* activism
- Great Britain, 15
- See also* Gandhian ethics of conflict resolution

INDEX

- green communities, 407
- Green economics and political theory, 605–10
- green economies, 587
- Green movement, 64, 65
- Green party program, Norwegian, 198
 - basic tenets, 198
- green philosophy and politics, 41
- green political parties, fundamental vs. pragmatist positions in, 197
- green political party programs, 30
 - from day to day, 217–18
- Green political theory, 95
 - vs. green political theory, 100–101
- green politics, 197–200, 203–06
- green-red alliances, 211
- green society, 65, 83–85, 236, 256–57, 574, 616
 - goals and characteristics, 14–15, 193–94
 - “green utopias,” 256–57
- Green vs. green distinction, 100–101, 620n1
- Green vs. green economists, 605
- Greens. *See* Green party program, Norwegian
- gross domestic product (GDP), 590
- gross national product (GNP), 569
- group struggle, ethics of. *See* Gandhian ethics of conflict resolution
- Grue, Per Harald, 161, 165, 172
- Gueroult, M., 407
- Guha, Ramachandra, 254, 255, 261
- guided exchange, 501

- Hallen, Patsy, 525
- Hallingskarvet, 340–41
- happiness, 22, 277, 529, 530
 - See also* joy
- Hargrove, Eugene C., 241, 243
- healers, 504–05
- Hegel, Georg Wilhelm Friedrich, 235, 397, 398
- Heidegger, Martin, 26, 235, 240, 244–46, 463
- historical research, methodology of, 395
- history
 - philosophy of, 395–96
 - teaching, 584
- Hitler, Adolf, 135, 609
- Höibakk, Ralph, 370–72, 375, 376
- holistic medicine, 504–05
- holistic thinking, 461
 - See also* wholism
- “home,” and global place-corrosive process, 339–40
- homocentrism, 47, 186
- homocentrists, 557

- human beings, intrinsic value of. *See* value
- human chauvinism, 47
- human condition, 577–79
- human-in-environment concept, 7
- human rights, 96, 214, 223
- humankind, goals for, 277, 322
- humility, 116
- Huxley, Julian, 265
- Hveding, Vidkun, 171–72, 176
- hypocrisy. *See* “schizophrenia”
- hypotheses, 425

- “I,” 517
- idealist philosophers, 557
- identification, 417, 517, 524
 - with animals, 143, 302, 518–19
 - gestalts and the process of, 465–66
 - with others, 142–43, 302, 516
- ideology, 480–81
- ignorance
 - extending the area of one’s, 467–70
 - awareness of one’s, 468
 - See also* *docta ignorantia*
- immigration
 - ethical aspect, 284
 - See also* migration
- India, 260
 - See also* Gandhi
- inherent value/worth. *See* value
- Innerdalen, 5
- integration, 115
 - and maturity of philosophers, 111
 - of personality, 114
 - See also* wholism
- intensities vs. quantities, philosophical problem
 - of, 286–87, 313–15
- interference, 503–05
- internal relation, 522
- international conflict resolution. *See* Gandhian ethics of conflict resolution
- international trade, 588
- International Union for Conservation of Nature and Natural Resources (IUCN), 36, 39, 46
- internationalism, 584
- interpretability, multiple
 - use of vagueness and ambiguity to achieve, 486–87
- intrinsic value/worth. *See* value
- intuition(s), 68–70, 147, 311, 405, 449, 544
- intuitively based announcements, 147

INDEX

- isolation and elitism, 328
- Iverson, Olav Hilmar, 176
- James, William, 522–23
- Janzen, Daniel H., 145
- Johnson, Lawrence, 550
- joy, 110, 402, 528
 - according to “pessimistic” philosophers, 111–12
 - self-realization and, 293
 - Spinoza on, 112–18, 402
 - See also* happiness
- justice, 95
 - opinions about facts vs. opinions about, 609–10
- Kamal, Lieutenant-Sabir, 372
- Kant, Immanuel, 233–35, 245, 246, 397–98, 527
 - on beautiful acts/actions, 54, 61, 121–27, 516
 - critical philosophy of, 121
 - ethics, 248
- Kantian interpretation of Spinoza, 397–98
- karamayogi*, 425
- Karim, Abdul, 371–74, 378
- Karim, Safdul, 374, 378
- Kåsa, Erik, 169, 170, 173–74
- Kathmandu, Nepal, 581
- Katzner, Kenneth, 248–49, 268, 269
- Kiër, Johan, 357
- Kierkegaard, Søren, 105, 111, 145, 241, 472, 474, 507
- Knauth, Professor, 372
- knowing, 473
 - See also* ignorance
- knowledge, 16–17, 112, 471
 - See also* ignorance
- Koestler, Arthur, 480
- Kristiansen, Kåre, 167, 169, 171
- Kropotkin, Peter, 95, 552
- Kuhn, Thomas S., 229
- Kvaloy, Sigmund, 41
- L*-formulation, 129–30
- Lackner, Stephan, 133, 411–12
- Lakatos, Imre
 - as fellow anarchist, 636n2
- lamentation, 272
- land and sea ethics, deep vs. shallow ecological
 - approach to, 45
- language(s), 246–48, 268–69, 623n5
 - See also* translation
- Lapps, 507, 521
- Lebow, Victor, 578–79
- Leopold, Aldo, 129, 328, 457–58
- Leopold formula, 230, 231
- liberation. *See* freedom; self-realization
- life, 8, 133, 134, 214, 567
 - happy, 277
 - (intrinsic) value of (*see* value)
 - reverence for, 14, 37, 38, 133, 172
 - right to, 67, 214, 299, 416–17
 - See also* animal rights
- life community, 304
- life-forms, 94–95, 187, 320
 - interdependence and interference between, 292
- life quality. *See* quality of life
- life unfolding/life expansion, 489
- lifestyle
 - deep ecology and, 105–08
 - of environmentalists, 110
- linguistics, 248
 - See also* language(s)
- listening to opponent’s argument, 16
- Little Hans, 3
- “Live and let live,” 136, 185, 302–03, 329, 489, 505
- living beings, 309, 567
 - See also specific topics*
- Lloyd, Genevieve, 238
- local autonomy, 10–11
- logic, 18
- logical relations, defined, 75
- Longergan, Bernard J., 635n1
- love, 417
 - of oneself, 518
 - types of, 400–401, 405
- low material standard, countries with (Ls), 270, 597–98, 603
 - See also* developed and undeveloped countries; Third World
- Malinowski, Bronislaw, 247–48
- Malthus, Thomas Robert, 212–13
- Malthusianism, 212–13
- Mannheim, Karl, 481
- Marx, Karl, 109
- Masai, 260–61
- masculinity, power, and conquest, 278
- Masson-Oursel, Paul, 246
- mathematics, 583
- matter, 633–34n2
- maturity
 - comprehensive, 515–16
 - of the self, 516

INDEX

- “Maximum fulfillment of life potentials,” 505
- McCloskey, Henry John, 214, 299–300
- means and ends, 426
- mediators, need for, 609
- medicine, natural, 504–05
- Mediterranean, 15
- Meeker, Joseph, 41
- metaphysics, 320
- methodology
 - hard and soft, 483–84, 497
 - of historical research, 395
- mice, mountain, 345–46
- migration
 - and ecological unsustainability, 283–89
 - from poor to rich countries, how to reduce, 287–88
- Milbrath, Lester W., 150
- Miller, G. Tyler, 41, 51
- minimal interference, principle of, 503–05
- minorities, 272
- modern cultures, 578
- modesty, intellectual, 467–68
- monism, 239, 242
- “moral acts”
 - vs. “beautiful acts,” 61, 121–22, 527
 - moral law and, 526–27
- moral world order, 387
- Mount Saint Helens, 196
- mountaineering in Norway
 - ethical considerations with a view to, 361–64
 - See also* Tvergastein, climbing
- mountains, 335–36, 573
 - modesty and the conquest of, 365–68
- movements, 613–14
 - See also* “alternative (future)” movements; environmental, peace, and social (justice) movements
- Müller, Oluf C., 180
- Mussolini, Benito, 277–78
- mutual aid, 95
- Mysterud, Ivar, 130, 231, 548
- Naess, Arne Dekke Eide
 - lifestyle, 350–51
 - as optimist, 596, 611–12
 - psychological and social determiners of his philosophy, 350–51
 - writings
 - “Deepness of Questions,” 617n1
 - Gandhi and Group Conflict*, 636n1
 - “Self-realization,” 60
 - “Spinoza and Ecology,” 622n1, 631n10
 - “The deep ecology movement,” 22
- national identity, 210
- natural gas, 196–97, 599–600
- “natural greens,” 15
- natural law, 164, 387–88
- natural medicine, 504–05
- natural objects, projection of personal traits onto, 581–82
- natural resources. *See* energy resources; resources
- Natural Right, philosophy of, 390
- Nature, 134, 527–28
 - perfection of, 386–87, 411
 - See also under* God; Spinoza
- nature, 3, 155, 559–60
 - “cult of nature,” 134
 - getting people to see reality in relation to, 16
 - inherent value of, 134, 152–55, 244, 560
 - experts’ views on, 156–77
 - See also* value
 - man-nature relations, 90
 - philosophies of, in harmony with sane ecopolitical outlook, 381
 - principle of minimal interference with, 503–05
 - projection into, 557
 - respect for, 14, 37, 38, 134, 150
 - “romantic attitude” toward, 162–63
 - suffering and, 134–35
 - See also specific topics*
- Nature-as-creative, 402–03
- nature mysticism, 50, 59
- Nazi Germany, 223, 265, 609–10
- Nazi occupation of Norway, 288
- need(s), 140–41
 - vs. demand, 140, 141, 206
 - See also* vital needs
- neither-nor and the both-and answers, 449–50
- neocolonialism, 271
- Nepal
 - destruction of, 580–81
 - letter to king of, 335–36
- Nirvana, 116
- nobility, 123
- nominalism, 456
- nonviolence, 100, 421, 597
 - ethics of, 421, 437
 - research suggestions regarding application of, 440–43
 - writings on, 443

INDEX

- nonviolence (*continued*)
 - Gandhian form of, 16, 100
 - See also* Gandhian ethics of conflict resolution; *satyāgraha*
- Nonviolence in Peace and War* (Gandhi), 422
- normative systems, 490
 - preponderance of nonnormatives in, 492–93
 - role of social and political contexts, 490–91
- norms, 135, 232–33, 241, 271
 - in Ecosophy T, 310
 - “hypotheses” and, 484–90
 - internalization of, 125
 - lower (derived), 486
 - ultimate, 493–95
 - rational policies rest on, 310–13
 - values and, 181–82
 - See also* “compassion priority norm”
- North American Treaty Organization (NATO), 215
- Norton, Bryan G., 231
- Norum, Kaare R., 165
- Norway
 - consumption of natural resources, 167
 - Nazi occupation, 288
 - oil and gas resources, 599
 - wild-animal “management,” 296–97
 - See also specific topics*
- Norwegian policies, as hostile toward environment, 149
- Norwegian Society for the Conservation of Nature (NNV), 331–32
- Norwegians, 595
 - attitudes toward environment, 595
- nuclear power. *See* antinuclear campaign
- Nuyen, A. T., 244
- objectivity, 449
- obligations, 141
 - See also* duty
- oceanic feeling, 94
- Ødegaard, Hans Chr., 157–59, 180
- Oelschlaeger, Max, 230
- Oftedal, Per, 159, 164, 166, 168, 173, 178
- oil, 599–600
- Økland, Jan, 166
- oneness. *See* oceanic feeling; symbiosis
- ontology, 634n4
- Opdal, Anders, 370–72, 376
- open exchange, 501
- opinions, 493
 - See also* norms
- optimism, 27, 87, 609
- overpopulation and overcrowding, 214, 601, 607
 - See also* population
- Øye, Ivar, 173
- Paasche, Eystein, 162
- pain. *See* suffering
- parasitism, 130, 131, 533
- passivity, 112, 113, 409
- Passmore, John, 297, 457
- peace movement, 202
 - campaigns of deep ecology movement and, 214–16
 - See also* environmental, peace, and social (justice) movements; Gandhian ethics of conflict resolution; nonviolence
- peace organizations, 223
- peaceful communities, 416
- peaceful cooperation, social science contributions
 - to questions of, 443–45
- pecking-order law, 509
- perfection, 115, 277, 278, 402, 459, 630n8, 631n10
 - of God, 401–02
 - of Nature, 386–87, 411
 - See also* integration
- perseveration/*perseverare*, 412–14, 520, 632n7
 - See also* self-preservation
- Personal Place and Person-Place, 352
- personification of natural objects, 581–82
- perspectivism, 458–60
- pessimism, 27, 87, 612
- pesticides, 28
- philosophers, 146
 - idealist, 557
 - maturity and integration, 111
- philosophical approaches
 - deep ecologists with different, 18
 - points agreed upon by various, 18–20, 57
- philosophical relativism, 506
- philosophical schools, 121, 221
- philosophy
 - history of, 395–97, 408
 - vs. movement, 42
 - origin of the term, 306
- pity, 117
- place-corrosive process, global, 339–40
- Plato, 180, 472
- pleasure, 277, 529, 530
- pluralism, 242

INDEX

- plurality, 263, 531, 532
 - vs. diversity, 532, 533
- polarization of conflicting views, 609
- policies, ecological
 - universalizability, 30
 - See also* environmental decisions
- policy change, need for, 19, 38, 40
- political decisions, green relevance of all, 206
- political issues, deep ecology and big, 216–17
- political relativism, 506
- political triangle, poles of
 - and limitations of triangular analysis, 203–06
- political voluntarism, 217
- politics, 29
 - and the ecological crisis, 191–200
- pollution, 9, 17
 - deep vs. shallow ecological approach to, 42–43
 - politics of, 209, 210
 - See also* carbon dioxide production
- poor countries, 572, 594–96, 599
 - emigration from rich countries to, 283
 - See also* developed and undeveloped countries; low material standard, countries with (Ls)
- population, 201, 608–09
 - carrying capacity of Earth and, 569–70
 - deep vs. shallow ecological approach to, 43–44
 - flourishing of life and, 19, 270, 624n5
 - if-statements and exponential growth, 207–08
 - See also* Malthusianism; overpopulation
- population factor, 569–72
- population pressure, 600–601, 607–08
- population reduction, 62, 154–55, 201, 270
 - ecosophical view of, 275–79
 - period of transition in rich countries, 279–81
 - “productive” and “unproductive” people, economics, and, 280
- postindustrial societies, 588
- postmodern cultures, 578
- potentialities of realization, 292–93, 295, 505
 - See also* self-realization potentials
- potentials, 531
- poverty, 572, 607
 - See also* poor countries
- power, 115, 389, 412, 416
 - See also* perseverance/perseverance
- precizations, 99, 486–87
- premises
 - and conclusions, 399–400
 - deepness of, 21
- primary, secondary, and tertiary qualities, 452–54
- problematizing, 22, 28–29
- “profound,” 22
- projection, theory of, 452–53
- proof, 18
- proofs, teaching mathematical, 583
- property. *See* land and sea ethics
- Protagoras, 450, 633–34nn2
- psychoanalytic theory, 518
- public opinions, 493
 - See also* norms
- purna swaraj*, 435
- quality of life, 19–20, 38, 39, 41, 310
 - vs. self-realization, 137, 626–27n13
 - vs. standard of living, 153, 173–76, 179–80, 202
 - See also* value (inherent/intrinsic)
- quantities vs. intensities, philosophical problem of, 286–87, 313–15
- questioning, 22–26, 28–29
 - deep, 38, 49
- questionnaires, methodology of, 483
- questions, deep, 23–26, 29
- radicalism, 614
- ranking, 548
- rational grounding, 182
- rationalism, 117, 502
- rationality, 49, 391, 502
- Rawls, John, 95, 601
- realism, 91, 527
- reality. *See* abstract structures (of reality)
- reason, 406
- Reed, Peter, 177
- “reforestation” projects, 558, 591
- reform ecology movement. *See* shallow ecology movement
- reform vs. revolution, 216
- refugees, 284, 287–89
- Regan, Tom, 298–99
- relata, 451, 523
- relationalism, 506
- relativism, 506
- religions
 - of deep ecologists, 18, 50
 - points agreed upon by various, 18–20, 57
 - See also* apron diagram
- religious leaders and the environment, 29

INDEX

- research and researchers, 16–17
- resource depletion, 9
- resources
 - deep vs. shallow ecological approach to, 43
 - fair distribution and profit from nonrenewable, 597–605
- respect, 97
- responsibility, ethics of, 9
- rhetoric, 80
 - See also* argumentation and debate; deep ecology, on the defensive; nonviolence, Gandhian form of
- rich industrial countries (R's), 270, 597–99, 603
 - See also* developed and undeveloped countries
- "Rich life with simple means!", 406
- rich-to-poor emigration, 283, 288
- richness, 127, 153, 154, 196, 543, 568, 595
 - See also* cultural diversity
- rights, 62, 389–90
 - ecosystemic, 214
 - of living beings, 213
 - moral capacities and, 299–300
 - moral capacity as necessary for, 299–300
 - natural, 495
 - nature of, 329
 - "no right to," 62
 - obligations as requirement for, 62, 614
- Rodman, John, 41
- role models. *See* lifestyle, of environmentalists
- Romanticism, European, 90, 91
- Rothenberg, David, 26
- rules
 - fundamental, 311–12
 - types of, 311–12
- Sahlins, Marshall, 91–92, 264
- Sami language, 268
- Sami people, 259, 267
- Sarvam dharmaṃ niḥsvabbavam*, 451
- satyāgraha*, 423, 435–36, 438–40
- Scandinavia, 15
- scepticism, 473–74
 - higher-order, 470–73
- Schilling, Friedrich, 381
- Schilpp, P. A., 356
- "schizophrenia," 330–31, 602
- schools
 - green, 210
 - teaching about environment, 125–26
 - Western, and European unity, 583–88
- Schreiner, Per, 164, 170, 174, 181
- Schweitzer, Albert, 397
- science, 449
 - political function, 211
- scientific enterprise, deep vs. shallow ecological approach to, 45–46
- scientific influence, factors in ecopolitics operating against, 211–12
- scientific worldviews, absence of any, 509–10
- scientists, earth
 - why they avoid propagating their views, 327
- Self, 524, 531
 - See also* ātman
- self, 515
 - internal and external relations, 521–23
 - psychology of the, 521–23
 - See also* "I"
- self-acceptance and self-respect, lack of, 113–14, 116
- self-defense, 522
- self-destructiveness, convergence of three areas of, 219–20
- self-determination, 293–94, 508
- self-expression, 390, 489
- self-interest, 489, 519
- self-love, 518, 519
- self-preservation, 272, 389, 412–13, 489
 - See also* perseverance/perseverare
- Self-realization, 320, 488
 - diversity, complexity, symbiosis, and, 531–34
 - maximum, 52, 620n1
 - as norm of Ecosophy T, 52, 53, 137, 222, 231
 - as ultimate goal, 278
- self-realization, 135, 320
 - an ecological approach to being in the world, 516, 519–30
 - complete/maximum, 532, 533
 - concept of self and, 172, 320
 - exploitation, coercion, and, 8, 119
 - Gandhi on, 523–26
 - and identification with others, 52–53
 - interpretations of, 488–90
 - joy, suffering, and, 293
 - levels of, 222–23, 389
 - in self and others, 137
 - vs. life quality, 137, 626–27n13
 - in mixed communities of humans and animals, 291–300
 - pleasure, happiness, and, 528–30
 - rationality and, 391
 - right to, 119, 494

INDEX

- self-preservation and, 389
- self-realization potentials, 531–33, 620n1
 - See also* potentialities of realization
- self-subsistence, 622n1
- sentences
 - function of one-word sentences and other utterances, 487–88
 - understanding their meaning, 627n15
- Sessions, George, 230, 541
- Sextus Empiricus, 450, 537, 633–34nn2
- Shah, Wazir Ali, 371
- shallow ecologist, 618n3
- shallow ecology movement, 170
 - anthropocentrism/homocentrism, 186
 - vs. deep ecology movement, 7–11, 16, 17, 28–30, 89, 155, 192, 202–03, 620n1
 - See also* Green vs. green distinction; shallow vs. deep ecology
 - impact on governmental level, 220
 - main complaint against, 51
- shallow vs. deep ecology, 42–47
 - See also* shallow ecology movement, vs. deep ecology movement
- sheep, 295, 296–98, 301–02, 548–50
 - See also under* animals
- skepticism. *See* scepticism
- Smart, J. J. C., 452
- Smith, Mick, 560
- Smuts, General, 436
- snakes, 317–18
- Snyder, Gary, 230, 242, 245, 251–53
- social Darwinism, 295
- social ecology movement, 601
 - See also* ecosophy(ies)
- social economics, 160–61
- social epistemology, 464
- “social greens,” 15
- social injustice as violence, 73
- social justice, 193–94
 - sustainable development, cultural diversity, and, 572–75
- social (justice) movement(s). *See* environmental, peace, and social (justice) movements
- social justice organizations, 223
- social science action research, 496–97
- socialism, 216
- society
 - in dynamic ecological equilibrium, 381
 - “no way back” to old forms of, 588–91
- sociobiology, 265
- Socrates, 52, 470
- Somalis, 283–84
- sorrow. *See* commiseration
- Soulé, Michael, 224, 316–17, 325–27
- species, 95
 - ranking, 548
- species egalitarianism. *See* egalitarianism (biospherical)
- Spinoza, Benedict de, 76–77, 293, 476–78, 530, 629n3, 631n16
 - accounts of human nature, 295–96
 - on animal rights, 416
 - on animals, 631n15
 - antimoralist attitude, 415
 - and attitudes toward Nature, 381–94, 411
 - on *causa*, 239–40
 - and deep ecology movement, 239, 396–419, 622n1
- environmental ethics and, 239
- ethics, 300
 - Kant’s ethics and, 248
- Ethics*, 248, 392, 406, 416, 418, 629nn1–4, 631n11, 632nn17–2, 633n8
 - account of free human beings, 296
 - apparent inconsistencies in, 400
 - argumentation in, 419
 - conservare* and *perseverare*, 412, 413, 632n7
 - Ecosophy T and, 489
 - English translations of, 246
 - “God or Nature,” 137, 383, 385, 402–06
 - methodology, 478
 - nature and, 399
 - spiritual genesis of fifth part of, 400–403
 - as supreme synthesis, 478
 - terminology, 400–402, 414–15, 419
 - total view outlined in, 399
 - on God, 383–86, 400–402, 406
- interpretations of, 235, 238–39
 - history of, 397–98
- Jewish faith, 403
 - on joy, 112–18, 402
- on lamentation and emotional epistemology, 272
- metaphysics, 238–39
- total view, 247, 399, 410–11
- Treatise on the Correction of the Understanding*, 478
- “Spinoza and Ecology” (Naess), 622n1, 631n10
- Spinozist, Kantian, Heideggerian, and Whiteheadian character (S-K-H-W) premises, 245, 246

INDEX

- Spinozistic social utopia, 633n8
 Spirit, 382
 spiritual world order, 382
 spontaneous experience, 461, 464–66
 forests and, 552, 553
 Sprigge, T. L. S., 300, 459–60
 Stammberger, Fritz, 373
 standard of living, 572
 vs. quality of life, 153, 173–76, 179–80, 202
 “statement,” 627n15
 stress, 123
 structural violence, 73
 subcultures, 272, 504
 See also communities
 subject-object cleavage, spontaneous experience
 without, 455–56
 subject-object distinction, 454–55
substantia (substance), 239–40, 246, 247
 suffering, 285, 287, 293, 626n11
 in nature, whether or not to relieve, 129–37
 norms about, 308–10, 313–14
 of other, identification with, 302–03
 quantity, quality, and experience of, 313–14
 Sundby, Per, 181–83
 superego, 352
 sustainability, ecological, 83, 84, 595–96, 612–14
 classes of unsustainability, 195–97
 goal of full, 578
 integral approach, 139–48
 meaning, 565–66
 “narrow” vs. “wide,” 65, 257–58
 as our “way back,” 588–91
 politics and, 193–95
 poverty and, 607
 promoting beautiful actions in the fight for,
 125–26
 soft technologies and, 85
 See also development, ecologically unsustainable
 sustainable development, 140, 141, 563–64
 See also under social justice
 sustainable economic growth and progress, 40,
 65, 141, 563–64
swaraj, 435
 Sweden, 288
 symbiosis, 8, 9, 52, 53, 389, 489, 533, 534
 See also oceanic feeling
 System, 474
 systems thinking, 12, 461
 See also ecosystems, theory of
 Taoism, 50
 Tasmanian devil, 303
 Taylor, Paul, 547
 teamwork, 495–96
 technocracies. *See* arguing from first principles
 technology(ies), 41, 83–86
 deep vs. shallow ecological approach to, 44
 soft, 85
 See also quality of life, vs. standard of living
 Tennyson, Alfred, 136
 “Think globally, act globally,” 259
 Third World, 98, 142, 145, 327, 603, 606
 migration problems, 286
 wilderness, deep ecology, and, 251–62
 See also low material standard, countries with;
 migration
 Third World communities, environmental
 concerns of, 260
 Thonstad, Tore, 625n4
 Thoreau, Henry David, 134
 Tirich Mir East, 369–72
 South Wall of, 369–78
 torture, 97
 total-field image, 7
 total/fundamental frames
 explication of, 470–73
 genesis of the belief in the possibility of,
 479–82
 paradoxes of, 477–79
 See also frames of reference
 total view(s), 17, 51, 59, 200, 231, 472
 ecosophies as, 97, 238
 inspired by ecological crisis, 411
 nature of, 399
 population issues and, 275, 279
 preconscious, 477–79
 of Spinoza, 247, 399, 410–11
 See also ecosophy(ies); wolf policies
 “totalitarian” disposition, 478
 totalitarianism. *See* Eight Points of deep ecology
 movement, antifascist character
 totus, 630n6
 trade, international, 588
 translation, 246–47, 267–68
 trash, disposal of, 352–53
 treeline, metaphysics of the, 555–58
 trees, relationship with, 14–15
 trust and mistrust, 430
 truth, 429
 Tveit, Jon, 160, 163, 173, 176–77, 179
 Tvergastein, 340
 amateur research at, 355–59

INDEX

- animals, 345–47
- climbing, 354–55
- flowers, 342–45
- genesis of a place-person, 347–48
- geography, 340–42
- human life at, 349–54
- ultimate norms, 310–13
- ultimate premises, 79
 - See also under* environmental philosophy
- ultimate source, 471
- understanding, 411, 631–32n16
- unemployment, 605
- United Nations, 599–600
- United States, northwestern, 15
- unity. *See* oceanic feeling; symbiosis
- universalizability, norm of, 195
- urban areas and nonurbanized personal places, 350
- urbanization, 254
- utilitarianism, 293, 567
- utopia(s)
 - green, 256–57
 - Spinozistic social, 633n8
- Vaihinger, Hans, 243
- Valhalla of the Vikings, 504
- value (inherent/intrinsic), 18, 37, 38, 95
 - of all human beings, 97, 99
 - of all living beings
 - Norwegians on, 330
 - as self-evident, 80
 - conservation efforts and, 276
 - gradations of, 97–98
 - identification and attribution of, 417
 - intolerance, discrimination, and, 99
 - intrinsic value vs. inherent value/worth, 61
 - justifiability of views on, 181–83
 - of natural world, 237
 - vs. nonliving entities as having value only as
 - means, 4–5, 202
 - ranking and grading of, 549
 - See also* animals; quality of life
- value priorities, 114, 308
- VanDeVeer, Donald, 295
- views, 478
 - See also* frames of reference; total view(s)
- Vigerust, Per, 370–71
- violence
 - definitions and meanings of, 425–26
 - See also* nonviolence
 - effects of, 427
- virtue, 267, 410, 412, 415
- vital needs (and vital interests), 62, 67–68
 - vs. “needs,” 140–41, 154, 161–62, 319
 - rights and, 567–69
 - satisfying “wants” vs., 586
 - vagueness regarding the term, 39
- voting, 206
- Walsby, H., 480–81
- war. *See* peace movement
- Watt, James, 79–80
- whales, 595
- whaling, response to Norwegian environmental
 - group’s support for, 331–34
- Whitehead, Alfred North, 237, 240, 245, 246, 453, 582
- wholism, 94
 - See also* integration
- Whorfian approach, 246
- wilderness areas, 109–10
- Wilson, E. O., 265
- Wingård, Bo, 163, 166–67, 173, 174, 177
- wisdom, 306, 563
- wolf policies, 301–02
 - norms, 310–13, 317–19
 - about suffering, 309–10, 313–14
 - protection of sheep against suffering, 313–15
 - protection of wolves as members of mixed
 - communities, 315–21
 - reflect philosophies as total views, 306–08
 - respect for international agreements, 321–23
 - ultimate norms and, 310–13
- Wolff, Robert Paul, 476
- Wolfson, Harry Austryn, 400–401
- wolves, 548–50, 627n17, 628n25
 - danger of extinction, 305–06
 - dignity, 321
- world conservation strategy, 574
- World Conservation Strategy*, 36, 39, 46, 158, 216
- World Conservation Strategy (WCS)
 - deep ecology and, 564–68
- World Ecological Strategy*, 283
- world order
 - moral, 387
 - spiritual, 382
- Wyld, Henry Cecil Kennedy, 413
- Yellow Cheese (*Gulosten*), 223
- Zapffe, Peter Wessel, 133
- zoning and protection zones, 256

Arne Naess was born in Slemdal, Norway, in 1912. One of Norway's foremost philosophers, known especially for his innovative eco-philosophy, Naess began his work with peace studies, global justice, and human rights, and continued with environmental matters. The subjects of his scholarly work and interests include empirical semantics, logic and foundations of science, communication theory and practice, Spinoza, scepticism, gestalt ontology, and normative systems theory. Naess's contributions have been honored by many awards, including Norway's Peer Gynt Award, Denmark's Sonning Prize, the Nordic Council Award for Nature and Environment, the Uggla Prize for Humanistic Studies from Stockholm University, and the Mahatma Gandhi Prize for Non-violent Peace.

Naess graduated from the University of Oslo in 1933, studied in Paris and Vienna, and became the youngest person appointed to a full professorship of philosophy at the University of Oslo, where he worked from 1939 to 1969. Since 1970, he has continued his work as a philosopher, naturalist, and environmental activist. He has been involved with the University of Oslo's Center for Development and the Environment since 1991. The Arne Naess Chair in Global Justice and the Environment is being established at the university to encourage scholars to engage creatively with Naess's work and ideas, in particular to promote new insights into environmental issues and the challenges posed by globalization, and to develop ideas that will help to humanize the difficult and conflict-laden transition to sustainability. Naess holds honorary doctorates from Stockholm University and The Norwegian National University of Sports and Physical Education. He is also an honorary member of The Norwegian Alpine Club and The Norwegian Tourist Association.

In addition to writing countless articles and essays that have been translated into several languages and have appeared in anthologies and journals throughout the world, Naess is the author of numerous books, including *Life's Philosophy: Reason and Feeling in a Deeper World* and *Ecology, Community and Lifestyle*. He was founder and editor of the journal *Inquiry*, and has lectured in many countries. As a mountaineer, Naess was the first to climb Tirich Mir in Pakistan. In the 1930s, he built a hut on Hallingskarvet Mountain in Norway, where he spent much time reflecting upon and relating to the surroundings and native plants of his retreat. His respect and appreciation for diversity, wonderment, and our relationship to

the natural world has continued throughout his life and is reflected in the spirit of his work.

Naess currently lives in Oslo with his wife, Kit-Fai.

Harold Glasser, Ph.D. is Associate Professor of Environmental Studies at Western Michigan University in Kalamazoo, Michigan. He has been a visiting Senior Fulbright scholar at the Center for Development and Environment and Department of Philosophy, University of Oslo; a Resource Person for the United Nations University–Institute of Advanced Study; a visiting researcher at the International Institute for Applied Systems Analysis; and a lecturer at Schumacher College. He has written on environmental philosophy, policy, and planning, as well as green accounting, education for ecocultural sustainability, and campus sustainability assessment.

Alan R. Drengson, Ph.D. is Emeritus Professor of Philosophy at the University of Victoria, in Victoria BC Canada. He is a former Director of Environmental Studies and is currently an Adjunct Professor of Graduate Studies. He is the author of numerous articles, reviews, and books, as well as the editor of three anthologies and the founding editor of two journals, *The Trumpeter: Journal of Ecosophy* and *Ecoforestry*.

Bill Devall, Ph.D. is Emeritus Professor of Sociology at Humboldt State University, Arcata, California. He is the author of numerous books on deep ecology, including *Deep Ecology: Living as if Nature Mattered* and *Simple in Means, Rich in Ends: Practicing Deep Ecology*. He was also editor-in-chief of *Clearcut: The Tragedy of Industrial Forestry*. He has written numerous articles on the deep, long-range ecology movement and has been a conservation activist in many wilderness issues.

George Sessions is Emeritus Professor of Philosophy at Sierra College in Rocklin, California. He is co-author, with Bill Devall, of *Deep Ecology: Living as if Nature Mattered* and editor of *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism*. He has been a lifelong mountain climber who began his research in the area of ecological philosophy in 1968.

Designed by Tamotsu Yagi Design
Composed by Ralph Fowler and BookMatters in Garamond 3
Printed by Krips, Meppel on Cyclus Offset 90 gr/m²
Bound by Callenbach, Nijkerk in Elite and stamped with Colorit 922